

Appendix A. Methods/approaches

Appendix A.1 Commercial fishing and CPFV focus group recruitment process

This appendix describes the project team's proposed approach for recruiting participation of commercial fishermen and Commercial Fishing Passenger Vessel (CPFV) owners/operators in a series of small group discussions. The process design has been developed with an aim to develop focus groups that are representative of the unique demographics of each port, port group, or region.

Group Composition

Feedback shared by Key Communicators has illustrated the need for each focus group to be reflective of the diverse demographics that exist within each port/port group. Since this is a state project linked to nearshore MPAs, we will limit participants to those who participate in at least one state water fishery.

Based on CDFW data, demographic criteria the project team is considering includes:

- Occupation (e.g., seeking commercial fishing and CPFV operators)
- Age
- Gender
- Year experience fishing in CA (before/after MPA implementation)
- Type and number of fisheries of participation
- Scale of operation (e.g., ex-vessel revenue, CPFV trips)

Finally, in selecting participants we will consider three additional factors. First their ability to participate effectively and productively in a focus group conversation. Second, their access to sufficient technology to participate in a virtual focus group. And third, their ability to consider the state of their fishing community beyond their own individual experience. The goal of the conversation will be to get fishermen to discuss the state of their port or fishing community as a whole.

Group Size

- Focus groups, commercial & CPFV (online): 3-10

Screening Process

Once we have a draft list of invitees we will reach out to participants to screen them for possible participation.

- Determine their willingness and availability to participate
- Determine their access to appropriate technology for virtual participation
- Determine if they need a zoom/technology training prior to the focus group
- Determine their ideal mode of communication related to the project: phone, text, or email.

Approach to Developing a Participant List in Each Port or Region

- Port Demographic Profiles

- We will use the CDFW landings data to develop demographic distributions and profiles of each port based on the criteria listed in group composition above (e.g. ex-vessel value, fisheries of participation, age)
- These demographic profiles can be compared to focus group invitees list to ensure appropriate representation and completeness
- Project Team (PT) Contacts
 - PT has significant experience working with California's fishing communities and their own contact lists to consider for recruitment to focus groups
 - PT will use existing contact lists to develop a list of potential invitees and identify key communicators or liaisons within each port to work with
- Port Liaisons (PLs)
 - Utilize local liaisons (minimum of 2) within each port who are known to be leaders, ideally across fisheries
 - These individuals can act as point-people within each port to solicit participation based on identified criteria, share list with PT
 - PLs can nominate, and in some cases recruit participants
- Draft Invitee List
 - Develop a draft invitee list based on suggestions from PT, PLs, and CDFW data
 - Compare the demographics of the invitee list with the demographic profile of the port and determine if any key groups or sectors are missing; any missing demographics will be noted in our final reporting
 - If needed, add additional invitees to the list to make up for any missing demographic groups - these individuals could be determined by PL or PT suggestions or by reviewing the CDFW data.
- Final Invitee List
 - Finalize an invitee list that includes wide representation from major demographic groups
 - Reach out to invitees and determine availability
 - Fill in additional invitees with similar demographics for those who are not able or willing to attend
 - Invite at least two participants more than the minimum number, as it is possible that issues will arise and not all will be able to make it on the day

Recruiting Process

- Once an invitee list has been developed, the PT will reach out to invitees individually to communicate more information about the project and determine their interest and availability
 - PLs may assist with initial contact to some invitees, but PT will follow-up shortly after with personalized emails and phone calls/text messages to provide more information
- PT members will use a combination of phone calls and emails to reach out to invitees and communicate information about the project. Information to be shared with all invitees include:

- Background
 - The purpose of the study
 - Who wants the information, who is sponsoring the study
 - What they will do with the information
 - Who we want to hear from
 - Why the study is important
- Selection process
 - How focus group participants are being solicited
 - How you got that person's name
 - Why you are inviting them
 - What will be done with results; who will benefit from the study
 - How they might benefit from participating (what is the incentive for participating?)
- Procedure
 - Dates of groups
 - Process for confirming participation
 - Whether to leave phone messages
- Focus Group Process and Information
 - Answers to frequently asked questions
 - Focus group question list
 - List of invitees
 - Consent form
- Follow-up
 - Personalized follow-up email (date/time)
 - Reminder phone calls or texts (date/time)
- Contact
 - Contact information for questions

Compensation

Commercial Fishermen

- \$175 per fisherman (\$275 for pilot port participants)

CPFV Fishermen

- \$175 per fisherman

Appendix A.2 Commercial fishing and CPFV focus group assessment tools

COMMERCIAL FISHING FOCUS GROUP QUESTIONS

Topic	Question	Responses
Well-being Indicators		
Well-being, Environmental		
1a. Marine Resource Health - Present	<p>Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Abundance - Diversity - Size/weight - Habitat - Water quality <p>*Facilitator to acknowledge there are natural fluctuations and variation, but to try to do their best to describe overall*</p>	<p>(1) Very Low (2) Low (3) Neutral/Medium (4) High (5) Very High</p>
1b. Marine Resource Health - Future Concerns	<p>Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Effectiveness of management - Future ocean changes 	<p>(1) Extremely Worried (2) Moderately Worried (3) Somewhat Worried (4) Slightly Worried (5) Not at all Worried</p>
Well-being, Economic		
2a. Access to Harvestable Resources	<p>Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Amount (e.g. lbs) - Diversity of fisheries - Restrictions that inhibit access - Equity 	<p>(1) Very Insufficient (2) Insufficient (3) Neutral (4) Sufficient (5) Very Sufficient</p>
2b. Income from Fishing	<p>Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?</p>	<p>(1) Very Insufficient (2) Insufficient (3) Neutral</p>

	<p>Consider:</p> <ul style="list-style-type: none"> - Need to take on other jobs - Costs compared to revenue - Income earned compared to similar types of jobs 	<p>(4) Sufficient (5) Very Sufficient</p>
3a. Markets	<p>Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Price - Ease of use - Stability/consistency/reliability - Diversity/choice 	<p>(1) Very Poor (2) Poor (3) Neutral/Acceptable (4) Good (5) Very Good</p>
3b. Infrastructure	<p>Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Availability of key infrastructure - Reliability and maintenance - Financial support for infrastructure <p>*Facilitator to note that examples of key infrastructure might include: docks, fuel, ice,</p>	<p>(1) Very Poor (2) Poor (3) Neutral/Acceptable (4) Good (5) Very Good</p>

	dredging, loading and unloading equipment, processors, haul out facilities, gear storage, etc.*	
3c. COVID-19 Impacts	How disruptive do you think COVID-19 has been to your port's fishing operations?	(1) Very Low (2) Low (3) Neutral/Medium (4) High (5) Very High
Well-being, Social		
4a. Labor/New Participants	<p>Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?</p> <p>Consider:</p> <ul style="list-style-type: none"> - New entrants vs. attrition - Quality of labor pool - Barriers to entry - Longevity <p>*Facilitator to note that respondents can consider captains and crew in their answers*</p>	(1) Very Poor (2) Poor (3) Neutral/Acceptable (4) Good (5) Very Good
4b. Job Satisfaction	<p>Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Sense of fulfillment/purpose - Sense of job security - Level of stress - Extent to which positives outweigh negatives 	(1) Very Dissatisfied (2) Dissatisfied (3) Neutral (4) Satisfied (5) Very Satisfied
5a. Social Relationships - Internal	<p>Overall, how would you rate the strength of social relationships (or social capital) within your port?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Leadership - Trust - Engagement - Sense of shared identity - Ability to work and gather together 	(1) Very Weak (2) Weak (3) Neutral (4) Strong (5) Very Strong

5b. Social Relationships - External	<p>Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Engagement in policy processes - Relationships with government, NGOs, others - Community support <p>*Facilitator to note that government includes local, state, federal government*</p>	<p>(1) Very Weak (2) Weak (3) Neutral (4) Strong (5) Very Strong</p>
<p align="center">Well-being, Overall/Additional Comments</p>		
6. Overall/Open-ended	<p>Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?</p> <p>What do you think federal and state managers could do to better support California's fishing communities?</p> <p>What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?</p>	<p>Open-ended</p>
<p align="center">MPA-Specific Indicators (MPAs)</p>		
<p align="center">MPAs, Outcomes/Effects</p>		
7. MPA Ecological Outcomes	<p>Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?</p> <p>Consider MPAs Effects On:</p> <ul style="list-style-type: none"> - Abundance - Diversity - Size - Habitat - Market quality - Other <p>*Remind the group to focus on trying to tease out effects from MPAs against other non-MPA related</p>	<p>(1) Strongly Negative (2) Negative (3) No Effect/Neutral (4) Positive (5) Strongly Positive</p>

	ocean changes that have been occurring since MPAs implemented and overall marine environment quality was already discussed in previous questions*	
8a. MPA Livelihood Outcomes	<p>Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?</p> <p>Consider MPAs Effects On:</p> <ul style="list-style-type: none"> - Landings - Cost - Income - Number of participants 	(1) Strongly Negative (2) Negative (3) No Effect/Neutral (4) Positive (5) Strongly Positive
8b. MPA Effects - Overall	<p>What other types of effects or impacts have fishermen from your port experienced from MPA implementation?</p> <p>*Note question to be incorporated as part of discussion related to Question 8a*</p> <p>Possible Effects to Consider:</p> <ul style="list-style-type: none"> - Change in ability to fish in or go to traditional grounds/areas - Change in travel distance to fishing grounds - Change in safety or risk associated with fishing - Change in crowding/competition in certain areas - Change in ability to serve/fulfill their markets - Change in fisheries of participation or dominance in port - Change in participation in local industry (fishermen leaving industry or moving ports) - Effects on political engagement, organization, and activity - Effects on relationships within and external to fishing community - Other 	Open-ended
9. MPA Effects - MPA Specific	<p>Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?</p> <p>*Facilitator will show an interactive map of the</p>	Show a map of the different MPAs and allow them to select

	MPAs to aid this discussion*	
MPAs, Management		
10a. MPA Management	<p>Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Fairness - Communication of information/decisions - Opportunities for fishermen involvement - Effectiveness in achieving goals 	<p>(1) Very Dissatisfied (2) Dissatisfied (3) Neutral/Neither (4) Satisfied (5) Very Satisfied</p>
10b. MPA Monitoring	<p>Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Design of the studies - Communication of results - Collaboration with fishermen - Inclusion of fishermen's perspectives 	<p>(1) Very Dissatisfied (2) Dissatisfied (3) Neutral/Neither (4) Satisfied (5) Very Satisfied</p>
10c. MPA Enforcement	<p>Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Clarity of the rules and regulations - Fairness in CDFW's interpretation of the rules/regulations - Effectiveness 	<p>(1) Very Dissatisfied (2) Dissatisfied (3) Neutral/Neither (4) Satisfied (5) Very Satisfied</p>
MPAs, Overall/Additional Comments		
11. MPA Overall	Any additional comments or concerns about the MPAs and MPA management you would like to communicate?	Open-ended

Feedback on Virtual Process		
12a. Satisfaction with the Virtual Process	Overall, how satisfied were you with your experience participating in this virtual focus group?	(1) Very Dissatisfied (2) Dissatisfied (3) Neutral/Neither (4) Satisfied (5) Very Satisfied
12b. Willingness to Participate in Virtual Process in Future	Would you be open to participating in a virtual focus group or meeting like this in the future?	(1) No (2) Maybe (3) Yes
12c. Process Open-ended	<p>Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?</p> <p>*Note question to be incorporated as part of discussion related to Question 12a and 12b*</p>	Open-ended

CPFV FISHING FOCUS GROUP QUESTIONS

Topic	Question	Responses
Well-being Indicators (WB)		
1a. Marine Resources - Present State ENVIRONMENTAL WB	<p>Overall, how would you rate the current health and sustainability of the marine resources on which CPFV own/op from this region rely?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Abundance - Diversity - Size/weight - Habitat - Water quality <p>*Facilitator to acknowledge there are natural fluctuations and variation, but to try to do their best to describe overall*</p>	(1) Very Low (2) Low (3) Neutral/Medium (4) High (5) Very High
1b. Marine Resources - Future Concerns ENVIRONMENTAL WB	<p>Overall, how worried are CPFV own/op from your region about the future long-term health and sustainability of the marine resource populations on which you rely?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Effectiveness of management - Future ocean change (e.g., climate change) 	(1) Extremely Worried (2) Moderately Worried (3) Somewhat Worried (4) Slightly Worried (5) Not at all Worried
2a. Income from Fishing ECONOMIC WB	<p>Overall, how would you rate the income that CPFV own/op (including crew) from your port earn from fishing to support livelihoods?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Need to take on other jobs - Costs compared to revenue - Income earned compared to similar types of jobs 	(1) Very Insufficient (2) Insufficient (3) Neutral (4) Sufficient (5) Very Sufficient

2b. Allocation of Resources ECONOMIC WB	<p>Overall, how would you rate the allocation of fish resources for CPFV fisheries in terms of supporting the CPFV industry?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Amount (e.g., bag limits) - Diversity or sustainability of fisheries - Restrictions that inhibit access - Equity 	(1) Very Insufficient (2) Insufficient (3) Neutral (4) Sufficient (5) Very Sufficient
2c. COVID-19 Impacts ECONOMIC WB	<p>How disruptive do you think COVID-19 has been to your region's CPFV fishing operations?</p> <p>Open-ended question to be brought up during Economic discussions: How would you rate/describe the state of the infrastructure to support the CPFV fleet in your region?</p> <ul style="list-style-type: none"> - Existence of key pieces of infrastructure (e.g. boat launches, docks/marinas, navigation and dredging, fish cleaning stations) - Maintenance, quality and functionality of infrastructure 	(1) Very Low (2) Low (3) Neutral/Medium (4) High (5) Very High
3a. Job Satisfaction SOCIAL WB	<p>Overall, how satisfied do you think CPFV own/op from the region are with their jobs?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Sense of fulfillment/purpose - Sense of job security - Level of stress - Extent to which positives outweigh negatives 	(1) Very Dissatisfied (2) Dissatisfied (3) Neutral (4) Satisfied (5) Very Satisfied
3b. Social Relationships - Internal SOCIAL WB	<p>Overall, how would you rate the strength of social relationships (or social capital) among CPFV own/op in your region?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Leadership - Trust 	(1) Very Weak (2) Weak (3) Neutral (4) Strong (5) Very Strong

	<ul style="list-style-type: none"> - Engagement - Sense of shared identity - Ability to work and gather together 	
3c. Social Relationships - External SOCIAL WB	<p>Overall, how would you rate the strength of relationships between CPFV own/op in your region and external groups who could help support industry needs?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Engagement in policy processes - Relationships with gov, NGOs - Community support <p>*Facilitator to note that government includes local, state, federal government*</p>	(1) Very Weak (2) Weak (3) Neutral (4) Strong (5) Very Strong
4. Overall/ Open-ended	<p>Is there anything not captured above that you would like state managers and other readers to know about your fishing community/industry?</p> <p>What do you think federal and state managers could do to better support California's CPFV fisheries?</p>	Open-ended

	What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?	
MPA Specific Indicators (MPAs)		
MPAs: Outcomes/Effects		
5. MPA Ecological Outcomes	<p>How would you rate the effect that the California MPA network has had on marine resource health in your area?</p> <p>Consider MPAs Effects On:</p> <ul style="list-style-type: none"> - Abundance - Diversity - Size - Habitat - Market quality - Other <p>*Remind the group to focus on trying to tease out effects from MPAs against other non-MPA related ocean changes that have been occurring since MPAs implemented and overall marine environment quality was already discussed in previous questions*</p>	<p>(1) Strongly Negative (2) Negative (3) No Effect/Neutral (4) Positive (5) Strongly Positive</p>
6a. MPA Livelihood Outcomes	<p>Overall, how would you rate the effect that the MPA network has had on the ability for CPFV own/op from your region to earn a living?</p> <p>Consider MPAs Effects On:</p> <ul style="list-style-type: none"> - Income: price and number of clients - Cost (e.g. fuel) - Percent of income from CPFV 	<p>(1) Strongly Negative (2) Negative (3) No Effect/Neutral (4) Positive (5) Strongly Positive</p>
6b. MPA Effects - Overall	<p>What types of effects or impacts have CPFV own/op from your region experienced from MPA implementation?</p> <p>*Note question to be incorporated as part of discussion related to Question 6a*</p> <p>Possible Effects to Consider:</p>	Open-ended

	<ul style="list-style-type: none"> - Change in ability to fish in or go to traditional grounds/areas - Change in travel distance to fishing grounds - Change in safety or risk associated with fishing - Change in fisheries or activities participate in with clients - Change in crowding/ competition in certain areas - Change in participation in local industry (CPFV own/op leaving industry or moving ports) - Change in ability to recruit clients and price charged - Effects on political engagement, organization, and activity - Effects on relationships within and external to fishing community - Effects on public interest in/demand for fishing opportunities - Other 	
7. MPA Effects - MPA Specific	<p>Which MPAs have had the most impact on CPFV own/op from your region and why?</p> <p>*Facilitator will show an interactive map of the MPAs to aid this discussion*</p>	Show a map of the different MPAs and allow them to select
MPAs: Management		
8a. MPA Management	<p>Overall, how satisfied do you think CPFV own/op from your region are with the management of the MPA network?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Fairness - Communication of information/decisions - Opportunities for involvement - Effectiveness in achieving goals 	(1) Very Dissatisfied (2) Dissatisfied (3) Neutral/Neither (4) Satisfied (5) Very Satisfied
8b. MPA Monitoring	<p>Overall, how satisfied do you think CPFV own/op from your region are with the monitoring of the MPA network?</p> <p>Consider:</p> <ul style="list-style-type: none"> - Design of the studies - Communication of results 	(1) Very Dissatisfied (2) Dissatisfied (3) Neutral/Neither (4) Satisfied (5) Very Satisfied

	<ul style="list-style-type: none"> - Collaboration with CPFV own/op - Inclusion of CPFV own/op perspectives 	
8c. MPA Enforcement	<p>Overall, how satisfied do you think CPFV own/op from your region are with the enforcement of MPAs?</p> <p>Criteria:</p> <ul style="list-style-type: none"> - Clarity of the rules and regulations - Fairness in CDFW's interpretation of the rules/regulations - Effectiveness 	(1) Very Dissatisfied (2) Dissatisfied (3) Neutral/Neither (4) Satisfied (5) Very Satisfied
MPAs: Overall		
9. MPA Overall	Any additional comments or concerns about the MPAs and MPA management you would like to communicate?	Open-ended

Feedback on Virtual Process		
10a. Satisfaction with the Virtual Process	Overall, how satisfied were you with your experience participating in this virtual focus group?	(1) Very Dissatisfied (2) Dissatisfied (3) Neutral/Neither (4) Satisfied (5) Very Satisfied
10b. Willingness to Participate in Virtual Process in Future	Would you be open to participating in a virtual focus group or meeting like this in the future?	(1) No (2) Maybe (3) Yes
10c. Process Open-ended	Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?	Open-ended

Appendix A.3 Commercial fishing and CPFV focus group consent forms

CONSENT FORM: Commercial Fishermen Virtual Focus Group Related to Socioeconomic Monitoring of the California MPA network

Project Title: Long-Term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

You are invited to take part in a research study conducted by Humboldt State University, Ecotrust, and Strategic Earth Consulting (collectively referred to as the Project Team) related to long-term socioeconomic monitoring of California's MPA network. Before you decide whether or not to participate in the study, please read this form and direct questions to the Project Team if there is anything that you do not understand.

Project Purpose: The primary goal of this research is to gain information about the well-being of fishing communities in California and about the socioeconomic aspects of California's MPA network. The data will inform long-term monitoring of the MPA network and potentially be useful to policymakers and fishing communities. This project was funded by the California Ocean Protection Council and California Department of Fish and Wildlife's MPA Monitoring Program with funding administered through California Sea Grant.

What you will be asked to do: If you agree to participate in this study, we will ask you to engage in a focus group conversation over video conference with other individuals from your port or port group related to the overall well-being of your fishing community and socioeconomics of California's MPA network. The focus group conversation will be audio and video recorded. We will ask you to respond to approximately 20 questions using Zoom polling software and then follow up your responses with a conversation about the topic with other members of the focus group to add context to the responses received. We anticipate that the focus group conversation will take approximately 4 hours.

Protection of Information: The focus group conversation will be audio and video recorded. We will also be taking typed notes during the focus group. Audio and video recordings and transcripts will not be made available to anyone outside the Project Team. Research records will be kept in a password-protected Google Drive folder; only the Project Team will have access to these records. Your responses will be aggregated with other focus group participants' to create final, publicly available products from this research, including a key themes summary, reports, and a project website. Direct quotes from the conversation may be used in final products to help illustrate sentiments in your own words; direct quotes will be selected in a way to ensure your confidentiality is protected and will not be attributed by name. In reports, quotes and findings will only be referenced based on the port/focus group they came from, not the individual who said them. Data, including direct quotes from the focus group, will be retained for possible use in research reports, publications, or presentations in the future. You can choose whether or not to have your name listed as someone who participated in the study. You can view summaries from previous conversations ([here](#)) to see how direct quotes and information from the conversation will be presented.

We ask that participants in the focus group also help to respect the confidentiality of other participants in the group. Please refrain from sharing personally identifiable information from the focus group conversation outside the meeting unless permission is granted.

Possible Risks and Benefits: We believe that there are little to no risks to you for participating in this study. It is possible that other individuals could identify your quotes, although we will make every effort to remove any

identifying information. You will receive direct benefits through the receipt of a stipend for your time. Other benefits, likely indirect, vary by how you choose to use the results from this study. Information will be used to inform the 2022 MPA management review. The Project Team is committed to producing products that will be useful to policymakers as well as to the fishing community to advance your collective priorities and needs.

Compensation: You will receive a stipend to compensate you for the time spent participating in this focus group.

Voluntary Participation: Your participation in the study is voluntary, and you have the right to withdraw at any time. You may skip any questions you do not want to answer. If you feel uncomfortable answering a question or need to take a break, please let a Project Team member know.

Contact Information: Thank you for taking the time to participate in this focus group. If you have any questions or concerns about this research, please feel free to contact Laurie Richmond, project co-principal investigator, at (707) 826-3202 or laurie.richmond@humboldt.edu.

If you are not satisfied with how this research is being conducted, or if you have any concerns with this study or questions about your rights as a participant, please contact the Institutional Review Board for the Protection of Human Subjects at irb@humboldt.edu or (707) 826-5165 to speak to an informed individual independent of the Project Team and this research.

Statement of Consent: *I certify that I understand the information in this consent form, and understand that the Project Team will answer any questions I may have concerning the research study or the procedures at any time. I also understand that my participation in any study is entirely voluntary and that I may decline to enter this study or may withdraw from it at any time without any consequences to me. I understand that the Project Team may terminate my participation in the study at any time. I have read the above information, and have received answers to any questions I asked. I consent to take part in the study.*

Confidentiality:

1. Please indicate whether or not we may list your name as someone who participated in the study in summaries and reports:

_____Yes _____No I give my consent for you to list my name as a participant in the study in summaries and reports.

Your Signature _____ Date _____

Your Name (please print) _____

NOTE: We will reach out to you to confirm your consent and agreement to participate either over email, over the phone, or during the focus group meeting itself. You do not need to print out and manually fill out this form.

The Project Team will keep a record of your consent for the duration of the Institutional Review Board approval.

CONSENT FORM: CPFV Owner/Operator Virtual Focus Group Related to Socioeconomic Monitoring of the California MPA network

Project Title: Long-Term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

You are invited to take part in a research study conducted by Humboldt State University, Ecotrust, and Strategic Earth Consulting (collectively referred to as the Project Team) related to long-term socioeconomic monitoring of California's MPA network. Before you decide whether or not to participate in the study, please read this form and direct questions to the Project Team if there is anything that you do not understand.

Project Purpose: The primary goal of this research is to gain information about the well-being of fishing communities in California and about the socioeconomic aspects of California's MPA network. The data will inform long-term monitoring of the MPA network and potentially be useful to policymakers and fishing communities. This project was funded by the California Ocean Protection Council and California Department of Fish and Wildlife's MPA Monitoring Program with funding administered through California Sea Grant.

What you will be asked to do: If you agree to participate in this study, we will ask you to engage in a focus group conversation over video conference with other individuals from your regional port group related to the overall well-being of your fishing community and socioeconomics of California's MPA network. The focus group conversation will be audio and video recorded. We will ask you to respond to approximately 20 questions using Zoom polling software and then follow up your responses with a conversation about the topic with other members of the focus group to add context to the responses received. We anticipate that the focus group conversation will take approximately 4 hours.

Protection of Information: The focus group conversation will be audio and video recorded. We will also be taking typed notes during the focus group. Audio and video recordings and transcripts will not be made available to anyone outside the Project Team. Research records will be kept in a password-protected Google Drive folder; only the Project Team will have access to these records. Your responses will be aggregated with other focus group participants' to create final, publicly available products from this research, including a key themes summary, reports, and a project website. Direct quotes from the conversation may be used in final products to help illustrate sentiments in your own words; direct quotes will be selected in a way to ensure your confidentiality is protected and will not be attributed by name. In reports, quotes and findings will only be referenced based on the regional port group/focus group they came from, not the individual who said them. Data, including direct quotes from the focus group, will be retained for possible use in research reports, publications, or presentations in the future. You can choose whether or not to have your name listed as someone who participated in the study. You can view summaries from previous conversations ([here](#)) to see how direct quotes and information from the conversation will be presented.

We ask that participants in the focus group also help to respect the confidentiality of other participants in the group. Please refrain from sharing personally identifiable information from the focus group conversation outside the meeting unless permission is granted.

Possible Risks and Benefits: We believe that there are little to no risks to you for participating in this study. It is possible that other individuals could identify your quotes, although we will make every effort to remove any

identifying information. You will receive direct benefits through the receipt of a stipend for your time. Other benefits, likely indirect, vary by how you choose to use the results from this study. Information will be used to inform the 2022 MPA management review. The Project Team is committed to producing products that will be useful to policymakers as well as to the fishing community to advance your collective priorities and needs.

Compensation: You will receive a stipend to compensate you for the time spent participating in this focus group.

Voluntary Participation: Your participation in the study is voluntary, and you have the right to withdraw at any time. You may skip any questions you do not want to answer. If you feel uncomfortable answering a question or need to take a break, please let a Project Team member know.

Contact Information: Thank you for taking the time to participate in this focus group. If you have any questions or concerns about this research, please feel free to contact Laurie Richmond, project co-principal investigator, at (707) 826-3202 or laurie.richmond@humboldt.edu.

If you are not satisfied with how this research is being conducted, or if you have any concerns with this study or questions about your rights as a participant, please contact the Institutional Review Board for the Protection of Human Subjects at irb@humboldt.edu or (707) 826-5165 to speak to an informed individual independent of the Project Team and this research.

Statement of Consent: *I certify that I understand the information in this consent form, and understand that the Project Team will answer any questions I may have concerning the research study or the procedures at any time. I also understand that my participation in any study is entirely voluntary and that I may decline to enter this study or may withdraw from it at any time without any consequences to me. I understand that the project team may terminate my participation in the study at any time. I have read the above information, and have received answers to any questions I asked. I consent to take part in the study.*

Confidentiality:

1. Please indicate whether or not we may list your name as someone who participated in the study in summaries and reports:

_____ Yes _____ No I give my consent for you to list my name as a participant in the study in summaries and reports.

Your Signature _____ Date _____
Your Name (please print) _____

NOTE: We will reach out to you to confirm your consent and agreement to participate either over email, over the phone, or during the focus group meeting itself. You do not need to print out and manually fill out this form.

The Project Team will keep a record of your consent for the duration of the Institutional Review Board approval.

Appendix A.4 Focus group data confidentiality, management, and sharing plan

Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

RE: Focus Group Data Sharing - Data Confidentiality, Management, and Sharing Plan

As a part of our project, *Establishing a statewide baseline and long-term MPA monitoring program for commercial and CPFV fisheries in the state of California*, we proposed to host focus group meetings in each of the major ports or port groups in California. However, the circumstances of the COVID-19 pandemic made travel and group interaction infeasible, so we pivoted to a virtual approach. We adjusted our focus group process to be compatible in an online meeting format, and held our first focus group in July 2020.

The focus groups involve the collection of both qualitative and quantitative data. The participants are asked a series of questions related to the well-being of their port or community and outcomes or impacts from MPAs. Given the COVID-19 context, we added questions asking participants to provide impacts about the effect of COVID-19 on their fishing activities and share their feedback on the virtual focus group experience. A list of the focus group questions can be found in the Commercial and CPFV focus group prep packets [here](#). Most of the questions related to community well-being and MPA outcomes incorporate a quantitative exercise where the focus group participants (3-10 individuals per group) are asked to rate their community on a scale of 1 - 5 for a particular factor or indicator. In addition to rating their community, participants are asked to orally discuss each factor, why they rated it the way they did, and describe the conditions of the port in relation to the factor. This discussion provides important context for understanding the quantitative ratings. We plan to hold 23 port-based focus groups with commercial fishermen and an additional seven regional focus groups with CPFV participants. The focus group conversations will provide two types of data relevant for this data management and sharing plan. (1) Quantitative data in the form of rating responses from the participants in the focus groups. (2) Qualitative data in the form of recordings and transcripts from the focus group conversation.

The management and sharing of data collected from human subjects -- such as focus group, survey, or interview data -- is guided by the Federal Policy for the Protection of Human Subjects, or the Common Rule, which requires protection of the rights and well-being of human subjects who participate in academic research (more information available [here](#)). The Common Rule is influenced by the Belmont Report, which outlines the basic ethical principles in human subjects research. Because of the laws and

principles that govern the collection of human subjects data in research, protocols for managing and sharing human subjects data will be different and in many cases more restrictive than protocols related to ecological or environmental data. Sharing of data must comply with these laws and protect the rights of the human subjects who participated in the research effort.

For this study, the collection, storage, and sharing of human subjects data gathered from the quantitative ratings and focus group conversations are guided by procedures that protect the rights of the human subjects participating in the research effort. Prior to the start of the project, the Project Team submitted an Institutional Review Board (IRB) application to the Humboldt State University IRB, and research activities began after approval was granted. The IRB application lays out the parameters of how the data is collected, stored, and managed, and describes how the rights of the study participants are protected. As a part of the protocol, the Project Team developed a consent form that each of the study participants reviews with a Project Team member prior to participating in the study. The consent form describes the nature of the study, the potential risks and benefits of participation, and clearly outlines how the collected data will be used and/or shared. The consent form also includes a set of options that the individual participant can select with regard to how their individual data will be used and shared. Participants can select whether they give the study team permission to use direct quotes from their conversations in research reports and materials. Participants can then select how direct quotes from their participation in the study may be attributed. They can select no attribution, attribution but with a general stakeholder category (like “Eureka commercial fisherman”), or attribution with their name. In our experience, the vast majority of participants select the second option, allowing quotes to be attributed with a general stakeholder category reference. Past study participants have been concerned that having their quotes referred to by name could lead to conflict or challenges with individuals who do not agree with their perspectives or repercussions from agencies and managers. In order to protect these wishes, in past research with human subjects (and with fishermen participants in particular), we almost never use individual names, and we take steps to protect the confidentiality of study participants, making sure quoted materials do not contain specific identifying information or attributes.

In addition to being required by IRB protocols, protecting the confidentiality of the study participants is also central to ensuring the accuracy and completeness of the social science data. Individuals who are concerned that the statements they make could become publicly available in a way that is specifically attributed to them may be less likely to participate in the study, or if they do participate in the study, less likely to provide complete and candid data about the state or their communities and fisheries.

For these reasons, protocols to protect the confidentiality of study participants put forth by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (more information available [here](#)) are extremely commonplace in social science data collection procedures.

Data Sharing Restrictions:

Given the laws, protocols, and norms that guide the collection and dissemination of human subjects data, the Project Team is unable to make the raw forms of our focus group data, including recordings and transcripts, available to the state or to the public. Only members of the Project Team who have been trained in IRB protocol and who are listed on the IRB application are able to access raw data collected from the focus groups. The data is stored on a password-protected computer and is backed up on the password-protected cloud storage function, Google Drive. We will need to aggregate and anonymize the data before it can be shared more widely.

Audio recordings and complete transcripts from focus group meetings cannot be made available to state partners or to the general public. These recordings and transcripts do not protect confidentiality. Study participants use their names over the course of the focus group conversations. It is also possible to identify individuals by the sound of their voice or through personal descriptions they give during the focus group conversations. In other words, there is no way for us to protect the confidentiality of study participants if we were to release raw transcripts and recordings from focus group conversations. The data must first be aggregated into a form that protects confidentiality before they can be shared. These restrictions are similar to those on CDFW landings data. There can be no compromise in terms of sharing audio recordings and raw transcripts of focus groups with state partners and the public. We cannot do that and also comply with federal and state laws and protocols required by our IRB.

Data Sharing Plan:

This data collection effort is funded by state taxpayers, and the data is designed to inform long-term management of MPAs. We understand the desire to make as much of that information available to the public. Below is a description for how we will share data collected from the focus groups with state partners and for release to the general public while also protecting individual confidentiality.

Focus Group Summaries

Focus group data will be made publicly available in the form of detailed focus group summaries. Each summary describes the findings and themes from the focus group, along with relevant quotes related to each finding. The summaries also include a visual

display of participants' quantitative ratings for each question that has a rating component. Summaries will be posted on our project team website ([here](#)) once they are completed. Details on the quantitative and qualitative data that will be included in each summary are below.

Quantitative Data

Focus groups are intended to have 3-10 participants. During focus group conversations, participants rate the state of their fishing community or port on a series of questions or indicators. The ratings are on a five-point scale and each individual present submits a numerical rating for each index using polling software in Zoom, our online meeting platform. For example, in a focus group with six participants, we have six different ratings available for each question.

This quantitative data will be made available to state partners and for public posting in the focus group summaries described above. Names and identifying information are stripped from the data and will not be included in final research products, including the focus group summaries. Results from the quantitative data from each question in the focus group will be made available in figures embedded in the focus group summaries.

At the end of the study, we will also provide our state partners with an excel file containing the quantitative data from all of the focus groups. Rating data will not be connected to individual names, but rather each set of data will be listed as coming from participants connected to a particular port or region.

Qualitative Data

As mentioned above, the raw focus group recordings and transcripts cannot be made accessible to state partners or the general public. Those will remain confidential and available only to approved members of the research team.

Qualitative data will be made available in the focus group summaries. Detailed findings and themes, as well as relevant quotes from focus group conversations, will be made available to state partners and the public in this manner. Each of the major questions in the focus group will have a separate summary of the responses along with select quotes. Quotes will be selected in a way that protects the confidentiality of the individual speaking. These summaries will provide sufficient detail such that the state and members of the public will be able to have a detailed and nuanced understanding of the conversations and potentially analyze the data to suit their own needs.

Appendix A.5 Discussion support tool, initial scoping (short form) - October 2019

California Statewide Socioeconomic MPA Monitoring Project
Discussion Support Tool: Interview Questions & Talking Points - SHORT FORM
Draft developed by SE: September 18, 2019

Name of Interviewee:

Target Audience:

Name of Interviewer:

Date:

Introductions

- Strategic Earth Consulting, in partnership with Humboldt State University and Ecotrust, have been awarded funding from the state (via California Sea Grant) to facilitate the collection of qualitative and quantitative information to gain a continued understanding of the socioeconomic conditions of California commercial fisheries and CPFV operations since MPA implementation, against which future MPA impacts and benefits can be measured.
- To help ensure we are designing this project to reflect the needs of those this information will be most useful to – fishermen, decision makers, resource managers, and other researchers – we are conducting a series of scoping discussions (like this call with you today).
- Specifically, our team is interested in designing a series of focus group discussions (in spring/summer 2020) across ports in California to gain a comprehensive understanding of the health, or wellbeing, of commercial/CPFV fishing communities in the context of MPA implementation.
 - *Back Pocket: We recognize this type of information has been collected in a number of ways by a number of agencies/organizations more recently. Our intention is to build off of this work – and to integrate the impacts of MPAs into this wellbeing instrument.*
- We would like to take the next 45 minutes to gain your insights on how this tool can be designed to meet the fishing community's/decision maker/research needs [*Fishermen: as well as invite you to offer guidance on how we might best engage your peers in a meaningful discussion next year*].
- The information you provide will not be attributed to you individually, but rather Strategic Earth will develop an internal document (not shared publicly) that will capture key themes across the small number of conversations we are having at this stage of the project.
- Before we get started, do you have any clarifying questions?
- Thank you so much for your time.

Background on Interviewee

- What is your home port? Which ports do you mainly fish out of?
- What is the primary fishery that you participate in? Do you participate in any other fisheries?
- Is fishing your primary livelihood? Do you have other forms of employment?
- Are you involved in any leadership roles within your port?

Information Needs

- What is your organization's/fishery's interest in socioeconomic data about California commercial fishermen and fisheries?
 - *Spatial data examples: value of fishing areas, impacts due to fishing pressure, etc.*
 - *Economic data examples: CDFW landings, operation costs data, etc.*
 - *Socioeconomic data examples: well-being, resilience, attitudes & perceptions, etc.*
- How do you currently use socioeconomic data in your work?

- Are there gaps in available information on socioeconomic conditions of commercial/CPFV fishermen and fisheries? If yes, what information is missing/needed?
- Where do you get your information on socioeconomic data currently?
- Are you involved in any current efforts/management processes that would benefit from socioeconomic data about California port communities/fishermen/ fisheries?
- Are you aware of any future management processes that would benefit from socioeconomic data?

Questions Specific to Port Community Wellbeing Tool

- Recognizing that MPAs are but one of the many factors that could impact the economic health of California fisheries, our team is currently thinking through how to develop an instrument – as set of questions that would help us quantify – the current ‘wellbeing’ of port communities throughout the state. This information could then be tracked over time as part of the state’s long-term monitoring goals.
 - The instrument will consist of a set of ~20 survey questions (or indicators) about fishing community well-being in the context of MPAs that will be administered in a focus group setting. Participants in the focus groups will be asked to rank the indicators on a scale of 1-5 as well as discuss the topics more freely to generate qualitative data. The instrument will include a set of questions about Effects from MPAs and a set of questions related to overall Fishing Community Well-Being. The Effects from MPAs questions would cover perceptions of impacts and benefits from MPAs and satisfaction with the management of the MPA network. The Well-being portion would provide a means to holistically assess the state of the fishing community on environmental, social, economic, political, cultural, and infrastructure factors.
 - *Sample MPA specific question:*
 - *Overall, what do you think has been the effect of these MPAs on income that members of your community earn from fishing? [1-5: Strongly Negative - Strongly Positive]*
 - *Sample Community Well-being Questions:*
 - *Overall, how would you rank your community in terms of access to commercial marine resources (both amount and diversity) to support the local fishing fleet/industry? (Very Low - Very High)*
 - *Overall, how concerned are members of your community about the long-term health and sustainability of the populations of marine resources on which you rely? (Very Concerned - Very Unconcerned)*
 - *Overall, how would you rank the strength of the fishing community’s relationship with policy-makers, managers, academics, NGOs or other external groups who could help support community needs? (Very weak - Very Strong)*
 - *Overall, how would you rank the state (availability and quality/maintenance) of infrastructure and services that support commercial fishing in your port? (Very Bad - Very Good)*
 - Backpocket
 - Digital clickers: Each participant will be given a clicker device, where they can rank their answer to each question. The answers will be displayed on the screen and used as a starting point for a qualitative discussion. At the end of about 10 minutes of discussion per question, the participants will be asked to rank the same indicator in order to assess whether and how their views have shifted during the conversation and to see if views have coalesced around a specific score for that indicator.
- What type of information would be important to collect as it pertains to fishing community health?
 - *PROBE: For example:*
 - *MPA-specific: impacts/effects of MPAs; perceptions of enforcement*

- *Well-being indicators: natural capital (state of the resource); social/political/cultural capital (relationships/trust, job satisfaction; human capital (new participants); built capital (infrastructure); financial*
 - *PROBE: Why is this information important to collect?*
- Do you think that considering the overarching wellbeing of your port community would be valuable/important information to gather?
 - If yes, can you share more about why you think this?
 - If no, why not?
- Would you be interested in participating in a webinar in the coming months to review and provide input on a draft 'wellbeing instrument' that would aim to address the priorities you've discussed today?
 - *PROBE: If not, why?*
 - *PROBE: Are there others you would recommend we speak with about the development of this instrument?*

Questions Specific to Port Focus Groups Tour

- Are focus groups an appropriate format for informal discussions with fishermen regarding MPAs and ocean health?
 - *PROBE: How long should focus group discussion meetings last?*
 - *PROBE: How many folks should be in a focus group discussion?*
- What kind of topics/discussions do you anticipate that folks would be interested in?
- Who would you suggest being included?
- Within your port and fishery, is there a particular season or month(s) within a season that would be most suitable for a focus group discussion?

Concluding Remarks

- Thank you for taking the time to speak with me today and sharing your guidance. It is deeply appreciated.
- Do you think members in your [insert organization and/or specific fishery] would be interested in learning more about this study or might have valuable input for improving the Port Community Wellbeing Instrument? If so, would you please share our contact information with them [name, email here], or if you are comfortable please share their name or contact with me?
- As an immediate next step, we will use this information to help develop the Port Community Wellbeing Instrument and inform the design of the statewide port focus groups tour next summer, 2020.
 - None of the information you've shared will be attributed to you directly.
 - As we mentioned at the start of the call, Strategic Earth will develop an internal document (not shared publicly) that will capture key themes across the small number of conversations we are having at this stage of the project.
- May I follow up with you if I have additional questions?
- Do you have any other questions, comments, or concerns for me?
 - Obtain/confirm email and/or mailing address

Back Pocket Information

Connections to FGC efforts to assess coastal community health/resiliency

- Infrastructure needs
- In the face of changing climate/ocean conditions

For this project we have five overarching goals that will help support the state of California in conducting long term monitoring and evaluation of its MPA network:

1. Engage representatives of commercial fishing communities across all major California ports so they can participate as partners in long-term socioeconomic monitoring efforts related to the MPA network;
2. Establish a statewide spatial and economic baseline for commercial and CPFV fisheries;
3. Conduct a statewide assessment of spatial and economic changes in commercial and CPFV fisheries since MPA implementation to evaluate MPA performance;
4. Understand the drivers of change in spatial and economic patterns observed in data gathered and compiled as well as qualitatively assess how commercial fishermen have been affected by and/or adapted to MPA implementation over time; and
5. Produce recommendations as to how the state of California can most effectively design and implement a long-term program to monitor the socioeconomic health of commercial and CPFV fisheries.

Appendix A.6 Presentation and discussion highlights
summary: Key communicators webinar to guide the
design of a draft port community well-being
assessment tool and focus group discussions -
Friday, January 31, 2020

Establishing a Statewide Baseline and Long-Term MPA Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Key Communicators Webinar to Guide the Design of a Draft Port Community Well-being Assessment Tool and Focus Group Discussions

Friday, January 31, 2020

Presentation and Discussion Highlights Summary

The MPA Human Uses project team¹ hosted a [webinar on January 31, 2020](#), to gain guidance and expertise from commercial fishermen and Commercial Passenger Fishing Vessel (CPFV) owners/operators, researchers, and managers² on the design of a draft 'Port Community Well-being Assessment Tool' (draft assessment tool) and related on-the-ground focus group discussions to help evaluate the performance of California's marine protected area (MPA) network.

The goals of the webinar were to gather a small group of leaders, or Key Communicators (KCs)³, across target audiences and:

- create a shared understanding of the purpose, value, and utility of the draft assessment tool to assess port community health;
- identify a clear pathway for the project team to refine the draft assessment tool based on key communicator feedback; and
- inform the development of an updated process design for focus group discussions based on key communicator feedback.

This summary of key highlights provides a high-level overview of the topics, questions, and outputs discussed during the webinar, as well as feedback received from an online questionnaire, which both webinar participants and non-participants were invited to complete. Webinar participants were invited to review a draft of this summary for accuracy prior to finalizing this document and making it publicly available. This document only contains a summary of the feedback received. The project team will follow up with a revised process design and assessment tool and provide details on how feedback was considered and/or addressed.

¹ Comprised of Humboldt State University (HSU) researchers, Ecotrust, and Strategic Earth Consulting, the MPA Human Uses Project Team is supporting the state to assess the baseline socioeconomic conditions of commercial and commercial passenger fishing vessel (CPFV) fisheries throughout the state of California.

² Individuals were selected for participation in the webinar based on the expertise of the project team, coupled with guidance from invitees about others to invite.

³ For the purposes of this project, Key Communicators are defined as recognized leaders who have a thorough understanding of the perspectives and priorities of their respective communities/affiliations and act as a conduit of information about policy and management processes through their networks and communications channels.

The following materials were discussed during the webinar and are available as reference:

- [Webinar Agenda](#)
- [Webinar Slide Deck](#)
- [Proposed Methodology for Focus Groups and 'Port Community Well-being Assessment Tool' for Key Communicator Review](#)
- [Port Groupings Summary](#)

Presentation Highlights

Project team members provided a series of [presentations](#) highlighting the core components of the MPA Human Uses project for KC feedback and review.

Introducing the Draft 'Port Community Well-being Assessment' Tool

Laurie Richmond, a professor of environmental management at HSU and one of the project's principal investigators (PI), introduced the [draft 'Port Community Well-being Assessment' tool](#), including the short- and long-term goals for the tool's application both in the context of MPAs and beyond. She explained the rationale behind using focus groups to collect quantitative and qualitative data, and the benefits that can be derived from this approach, including its replicability and introduction of context to spatial and quantitative analysis. Laurie highlighted that gathering information about overall community well-being and specific outcomes from MPAs can help to better understand community context, which is important for understanding MPA outcomes. She shared the proposed process design, and detailed the focus group approach for commercial fishermen and the conversation approach for CPFV operators. Laurie briefly reviewed the well-being and MPA question topics, and walked participants through the proposed methods for analysis of quantitative and qualitative data.

Compiling Statewide Spatial and Economic Baseline Data

Cheryl Chen and Jon Bonkoski, co-PIs with Ecotrust, shared information about the analysis of existing spatial data and the vision for end-products resulting from the project. They explained how California Department of Fish and Wildlife (CDFW) commercial landings data and CPFV logbook data will be used to create statewide commercial and CPFV fishing maps while acknowledging the difficulties of working with spatial data from various regions collected at different times. They discussed the application of integrative analysis to the project, in which spatial data and ecological research will both be used to better understand MPA performance and the gaps that exist in MPA performance assessments. They shared existing web-based tools and proposed using these as a model for project products.

Planning Focus Groups

Kelly Sayce, one of the PIs and principal with Strategic Earth Consulting, provided an overview of the first two stages of the project (three stages in total). She explained the project is currently in stage one,

in which the project team developed the draft assessment tool, identified KCs for guidance on the tool, planned and convened a webinar to request reviewer feedback on the tool, and will pilot the tool and finalize tool questions after evaluating pilot performance. She detailed stage two in which the project team will engage representatives of commercial and CPFV fishing communities and use the draft assessment tool developed in stage one to gather quantitative and qualitative information about port community well-being and impacts from, and adaptation to, the California MPAs.

Discussion Highlights

KCs were invited to provide feedback about the project design, draft assessment tool, focus groups process design, data analysis, and communication of study findings. Highlights of this feedback and related discussions are included below.

Project Design and Value

Collecting qualitative data and quantitative data can provide important context and allow us to gain a deeper understanding of fishermen's priorities than if quantitative information was gathered alone. Clarification is needed to better understand how data gathered in the study might be used to inform MPA management and/or address the pressing needs and priorities of California commercial and CPFV fishermen.

- One KC questioned why stakeholders would trust that the state is interested in considering the socioeconomic data gathered through this project since the Marine Life Protection Act (MLPA) did not distinctly consider socioeconomic effects. From their perspective, MPAs were created for their intrinsic ecological value so it is unclear why MPA monitoring, including the collection of socioeconomic information, is needed.
 - An agency representative from the state did want to make clear that from their perspective socioeconomic monitoring and outcomes remain valuable inputs for MPA and fisheries management.
- A question was asked regarding how an MPA 'statewide baseline' is defined, considering some MPAs were implemented over a decade before this project began.
 - It was suggested that MPA monitoring reference sites (i.e., areas outside MPAs with similar habitat inside comparison MPAs) include areas across broader geographic ranges than within a specific MPA region to more accurately observe changes in ecosystem health due to MPA impacts (e.g., displaced fishing effort).
 - One KC suggested that it would be important to include fishermen in the conversation who were fishing before MPAs were put in place so they could speak to socioeconomic and port community well-being before and after MPA implementation.
- One KC questioned whether the focus group approach is the best way to collect information about port community well-being, and shared that they saw potentially more value in a project that would do on-the-ground assessment of port amenities and capabilities. They suggested

that fishermen might not all have complete knowledge of the different infrastructure, services, and markets available in their ports.

- Another KC discussed the importance of aligning focus groups with other fishing community research that is happening in California ports (e.g., ongoing work to catalog available infrastructure, services, governance structures in dozens of California ports). They suggested that there may be fruitful avenues for bringing together focus group data with on-the-ground assessments.
 - Recommendations made to consider how this project related to other policy-related work specific to California coastal and fisheries management, including but not limited to the implementation of the 2018 Marine Life Management Act Master Plan.

The current project design which uses focus group discussions as the primary method to engage with fishing communities can be effective, however, fishermen's willingness to participate, ensuring inclusive representation of participants within each port/port grouping, etc. are some of the potential challenges that will need to be considered.

- Based on past experiences with the MLPA Initiative and MPA planning/designation process, concerns were raised that fishermen may be skeptical about or uninterested in engaging in this project.
- There was general agreement that inviting fishermen to participate in focus groups during the height of their respective fishing seasons would be difficult. One KC suggested that focus groups be combined with other fisheries meetings to help maximize participation.
- There were several requests for clarification about specific aspects of the project design, which are discussed in further detail in subsequent sections, below.

Draft 'Port Community Well-being Assessment Tool'

The first iteration of the draft assessment tool offers a good starting place for collecting quantitative information to assess port community well-being, however, continued fine-tuning is necessary to improve the clarity of questions being asked to help minimize variability and increase the accuracy and consistency of responses received.

- There was general support expressed for the overall design of the draft assessment tool, with a number of KCs sharing that most of the questions included in the draft assessment tool were clear and understandable.
 - A number of KCs expressed concerns that the draft questions may be too broad, which could introduce more variability in the answers received (due to increased interpretation). To support richer conversations, multiple KCs suggested improving the specificity of certain questions (e.g., "Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?") and including sub-criteria (e.g., price, ease of use, stability/consistency, diversity/choice) to improve understanding and consistency in responses received.

- One KC discussed that given the question design we should use the term “rate” instead of “rank” when asking participants to evaluate the likert scale questions.
- One KC suggested that the project team reach out to more members of the fishing community to request their input about what factors they think are important to consider about community well-being.
- When reviewing the order of the questions included in the draft assessment tool, there was general support to keep the MPA and well-being questions separate (i.e., ask all well-being questions first, then ask all MPA-related questions). Several KCs added that the well-being questions may provide useful context for responses to the MPA questions.
 - One KC expressed it may be difficult for focus group participants to tease out socioeconomic impacts specific to MPAs when considering all large-scale management actions that have affected fishing communities (e.g., rockfish conservation area).
 - One KC suggested it might be fruitful to integrate the well-being questions with the MPA questions, for example to start on a topic and then drill down to how MPAs related to that topic. Others were not sure about whether integrating the questions in that way would be effective.
 - Additional questions and concerns were raised regarding focus group participants’ ability to convey the perspectives of their port rather than individual priorities or needs.
 - One KC commented that fishermen typically feel more comfortable speaking about their personal experiences then speaking on behalf of their port community.
- Some KCs highlighted the need for clear messaging about what the draft assessment tool is and what type of data it will collect, given that not all components of the fishing community will be present during each focus group. Using the term ‘port community’ may be misleading, given that the project only focuses on one or two parts of the fishing community as a whole (i.e., processors and buyers will not be part of focus group discussions). There were suggestions to give the tool and project a more focused name.

Focus Group Design

Focus groups have increased potential to gather information that is credible, reliable, and representative of California commercial and CPFV fishing communities if each focus group includes a diverse array of fishermen that are reflective of their respective ports (e.g. size of fishing operations, production levels, involvement in a range of fisheries, number of years fishing, demographics [age, gender] etc.).

- KCs expressed general support for using electronic clickers (either via cell phones or a separate handheld technology) to quickly collect and compare responses without influence from others.
- KCs highlighted the importance of including focus group participants who can speak to both pre- and post-MPA conditions, have a strong understanding of port-community wide perspectives, and who rely on fisheries that occur within state waters, which have been more

greatly affected by MPAs. It was also suggested to include younger fishermen as well as those who participate in a wide range of fisheries active in each port to capture diverse perspectives.

- KCs requested clarification about the process for determining the number of fishermen invited to each focus group and the process for recruiting focus group participants. One KC suggested varying the size of focus groups based on port community size and cautioned against holding large group discussions (e.g., more than 10-12 participants).
- One KC expressed support for focus groups as an efficient alternative to one-on-one interviews.
- Several KCs expressed concern that the current focus group design only includes commercial fishermen. Due to constraints in the scope of the project, CPFV discussions are slated to take place in a smaller group setting (2-4 fishermen) and will not involve the use of clickers. Some KCs highlighted the importance of collecting comparable quantitative and qualitative data across both commercial and CPFV fishing communities.
 - Several KCs asked about how the project was planning to consider fishermen who fish commercially and also operate CPFVs. It was highlighted that the responses of these 'hybrid' fishermen in a focus group setting could be affected depending on which perspective they are asked to answer from.
 - Several KCs highlighted there is a larger CPFV presence in some ports and that these ports might benefit from the inclusion of more CPFV operators than the proposed 2-4 participants.

Port Groupings

Recognizing the need to be efficient with time and available resources, the approach taken to grouping ports together (i.e., those ports that are geographically close to one another) may influence the quality and fine-scale nature of the data collected during each focus group with commercial fishermen and/or discussions with CPFV owner/operators.

- KCs noted that several of the port groupings defined by the project team (see materials listed on page 1, 'Port Groupings Summary') may make it difficult to comprehensively capture an accurate assessment of port community well-being and/or socioeconomic impacts due to MPAs. When only holding one discussion for commercial and CPFV fishermen respectively across ports in an area, the subtle nuances of needs and priorities between ports may be lost by grouping ports together.
- One KC suggested the number of ports / port groups currently outlined (24 in total) be reduced to make additional project resources available to support discussions with CPFV operators.

Data Analysis

The visual display and presentation of the quantitative data collected during the focus groups via the clicker technology may influence the nature and framing of the group's discussion.

- A number of KCs expressed concern that individual ratings would not be presented but rather be merged into one rating for reporting and discussion purposes. This average rating would not demonstrate the full variety of perceptions within each focus group.
 - To help address this, one KC suggested that an instrument could be designed to identify/contextualize the perspectives of individuals (e.g., their experience level, demographics, etc.).
- Some KCs expressed concern that presenting ratings as numerical responses or indices on their own could be misleading without the underlying qualitative data related to context, and suggested that the project team be careful about the presentation of results (i.e., provide explanations/caveats about what the numbers may or may not reflect).
- One KC suggested that a summary of responses to individual questions be made available in addition to the overall ratings of each index (e.g., well-being [social, economic, environmental] and MPA).
- There was a suggestion to report trends in the responses based on participant age and other demographic information.
- KCs were invited to provide additional feedback on data analysis methods via the online questionnaire or via direct discussions with members of the project team.

Communicating Project Findings

Utilizing a web-based platform to share the final products and outputs of this project can offer an interesting, informative, and interactive user experience and can be more useful than a static report.

- Broad support was shared for the project team's suggestion to develop a web-based tool similar to the [Fisheries Data Explorer](#) to communicate the project's key findings.
- Several KCs expressed their excitement about the idea to communicate stories through the data. The interactive approach would make the information accessible and data could be made available to fishing communities for purposes beyond MPA monitoring.
- KCs provided several other suggestions for ways to communicate findings from this project directly to key audiences (e.g., fishermen, decision makers, fisheries managers), including presentations, verbal reports, social media, newspaper, port association meetings, and other direct forms of outreach.

Looking Ahead

- The project team requested additional feedback and guidance via the online questionnaire through February 21, 2020. The invitation for input was extended via email to those KCs unable to attend the webinar.
 - A key themes summary capturing suggestions and ideas shared during the webinar and via the online questionnaire will be developed by the project team and made available to KCs for accuracy prior to posting on the project team website.

- Several KCs expressed their appreciation for being consulted about the design of this study at this early stage in the draft assessment tool's development, and for the efforts of fishery managers in seeking to better understand California's fishing communities.
 - There was interest expressed in reconvening the KCs after the pilot port focus group (anticipated for April 2020), and one KC expressed interest in being involved with fishing community engagement once focus group planning was underway.

For more information about the webinar or the MPA Human Uses project, please visit mpahumanuses.com or contact hello@strategicearth.com.

Appendix A.7 Response to comments: Key communicators webinar to guide the design of a draft port community well-being assessment tool and focus group discussions - Friday, January 31, 2020

[Key Communicators Webinar to Guide the Design of a Draft Port Community Well-being Tool and Focus Group Discussions](#)

January 31, 2020; 17 participants

[Presentation and Discussion Highlights Summary](#)

Comment 1. One KC questioned why stakeholders would trust that the state is interested in considering the socioeconomic data gathered through this project since the Marine Life Protection Act (MLPA) did not distinctly consider socioeconomic effects. From their perspective, MPAs were created for their intrinsic ecological value so it is unclear why MPA monitoring, including the collection of socioeconomic information, is needed.

Response: The state of California has been using a set of criteria to base their review and monitoring of the MPA network. There are two goals included in the [MPA Monitoring Action Plan](#) related to socioeconomic information:

MLPA GOAL 2: HELP SUSTAIN, CONSERVE, AND PROTECT MARINE LIFE POPULATIONS, INCLUDING THOSE OF ECONOMIC VALUE, AND REBUILD THOSE THAT ARE DEPLETED

MLPA GOAL 5: ENSURE CALIFORNIA'S MPAS HAVE CLEARLY DEFINED OBJECTIVES, EFFECTIVE MANAGEMENT MEASURES, AND ADEQUATE ENFORCEMENT, AND ARE BASED ON SOUND SCIENTIFIC GUIDELINES

With these goals and in the funding allocated to this and past socioeconomic projects, the state is signaling an interest in understanding the effects of MPAs on commercial and CPFV fishing industries and communities. We cannot guarantee if and how the socioeconomic data collected from this study will be used by the state in the further review and management of the MPA network. However, this study does provide an opportunity for fishermen to share and communicate their experiences. In addition, we have included questions beyond MPAs in the assessment tool so that fishermen can provide information about the greater context within which they operate -- about the challenges and strengths of their fishing communities. This data can be relevant beyond MPA management. It could provide useful information to fisheries managers at the state and federal levels. Finally, findings from this research will be made available to individual fishing communities who could use it in their own advocacy and planning. We added additional information to the rationale section of this document to include possible benefits from participating in this project.

Comment 2. A question was asked regarding how an MPA 'statewide baseline' is defined, considering some MPAs were implemented over a decade before this project began.

Response: The term "baseline" came from the state's call for proposals as this is the first time that long-term monitoring will be implemented throughout the state (i.e., MPA baseline monitoring has been conducted at a regional scale to date). Data we collect this year can be

compared with data collected in past and future monitoring efforts. Based on this feedback provided, the word “baseline” has been taken out of most of our communications related to this project, including this document, to avoid confusion.

Comment 3. It was suggested the MPA monitoring reference sites include areas across broader geographic ranges than within a specific MPA region to more accurately observe changes in ecosystem health due to MPA impacts.

Response: This question seems related to ecological monitoring of MPAs; there are several projects working on ecological components, but that is not within the scope of this project.

Comment 4a. Focus groups have increased potential to gather information that is credible, reliable, and representative of California commercial and CPFV fishing communities if each focus group includes a diverse array of fishermen that are reflective of their respective ports. One KC suggested that it would be important to include fishermen in the conversation who were fishing before MPAs were put in place so they could speak to socioeconomic and port community well-being before and after MPA implementation.

Comment 4b. KCs requested clarification about the process for determining the number of fishermen invited to each focus group and the process for recruiting focus group participants. One KC suggested varying the size of focus groups based on port community size and cautioned against holding large group discussions.

Response: Recruitment and selection of participants for the focus groups will be essential to ensure there is a representative group across each port/port grouping. In response to this comment, more detail on the selection and recruitment process for the focus groups has been developed. This includes updates to the text of the process design and a new document, which outlines the criteria and process we will use to select participants. Criteria include, but are not limited to, age range, gender, fishery of participation, size of operation, level of experience in the fishery, awareness of the state of the fishing community, ability to speak beyond individual experience on behalf of the fishing community, and ability to do well in a deliberative process. Since the conversations have moved to Zoom, we will also seek participants who have an ability to use a web-based meeting platform and training will be made available to those fishermen with limited experience with Zoom tools (e.g., polls). With the criteria of age and experience in the fishery, we will seek to ensure that each focus group has participants who can provide a long-range view of the fishing port and can speak to conditions before and after MPA implementation.

We have decided to reduce the size of planned focus groups, particularly in light of the COVID-19 crisis and the need to hold focus groups in a virtual format. We have decided that commercial and CPFV focus groups will have a range of 4-10 participants.

Comment 5. One KC questioned whether the focus group approach is the best way to collect information about port community well-being, and shared that they saw potentially more value in a project that would do on-the-ground assessment of port amenities and capabilities.

Response: We agree that these focus group or interview methods will only provide one piece of information related to fishing community well-being: commercial and CPFV operators' perceptions of the well-being of their communities. Perceptions data is important for community members and managers to understand as it provides a window into community views of management strategies like MPAs and overall community health. Perceptions data alone will not provide a complete view of the state of fishing communities and their unique contexts and needs. We hope to design our study so that it can compliment richer analyses such as on-the-ground assessments of port infrastructure, amenities, and capabilities. One such study is a research project being led by Carrie Pomeroy titled: *Assessing interdependencies between commercial fisheries and California ports*. Our hope is that our research can provide a snapshot into the views, perceptions, concerns, thoughts, and feelings of commercial fishermen and CPFV operators on a statewide scale. Findings will be available to inform possible further work, like Carrie's, that delves more deeply into the state of fishing communities and ports. We have revised the project approach to more clearly communicate the purpose of the study and to describe how it could integrate and interact with other fishing community research. By hosting a webinar to gain feedback from KCs, we have sought to include researchers working on fishing community research in California to provide their guidance and help to design the study in a way that it can complement and add to existing and future planned research.

Comment 6. Based on past experiences with the MLPA Initiative and MPA planning / designation process, concerns were raised that fishermen may be skeptical about or uninterested in engaging in this project.

Response: We agree this is a real challenge and have taken a number of steps to try to build trust in the project and increase incentives for participation.

- We have sought feedback from representatives of California fishing communities in the design of the assessment tool and have included fishermen throughout the process design for this study as an attempt to build trust and to design a project that is reflective of their interests and needs.
- In response to feedback from fishermen, we have broadened the scope of the study beyond MPAs to include questions related to the broader context and challenges that fishing communities face.
- We are developing ways to communicate findings from the research in a way that will be relevant and useful for fishing communities themselves -- including developing key theme summaries from focus groups and web-based communication tools that will be more accessible than lengthy reports.

- We have been very clear about including funding for compensation for fishermen who participate in this project. We respect fishermen's time and believe they should be compensated for sharing their expertise.
- Members of the project team have long-standing relationships with representatives from fishing communities over years of collaboration and projects, and we hope that the trust developed through those projects can assist in recruiting fishermen to participate.
- Participation in this study will be voluntary. If individual fishermen are not interested in participating, that is their choice. We cannot guarantee the extent to which this research will be used by managers in their decision-making, but see value in including fishermen's voices and perspectives as part of the conversation about the ongoing monitoring and management of MPAs. We hope that many will be willing to participate and provide their views -- positive or negative about MPAs and other aspects of their fishing communities. The goal of this research will be to present fishermen's perspective to managers and other readers as transparently, clearly, and honestly as possible.

Comment 7. There was general agreement that inviting fishermen to participate in focus groups during the height of their respective fishing seasons would be difficult. One KC suggested that focus groups be combined with other fisheries meetings to help maximize participation.

Response: Several members of the project team are in close communication with port leadership to determine when fishermen are available to participate in the virtual focus groups. With this information, we are working to schedule the focus groups around fishing seasons and weather windows when fishermen aren't out on the water. While we appreciate the suggestion to piggy-back the focus groups with other fisheries meetings to help increase turnout, we cannot guarantee that we would be able to recruit a broad, diverse, and reflective group of participants from these meetings. This idea has been made even more challenging in light of COVID-19.

Comment 8. A number of KCs expressed concerns that the draft questions may be too broad, which could introduce more variability in the answers received (due to increased participation). To support richer conversations, multiple KCs suggested improving the specificity of certain questions and including sub-criteria to improve understanding and consistency in responses received.

Response: A clear set of criteria has been added after each question so that participants in the conversation can be clear about what they are assessing, and to add more consistency across ports and time.

Comment 9. One KC discussed that given the question design we should use the term "rate" instead of "rank" when asking participants to evaluate the likert scale questions.

Response: We have replaced "rank" with "rate" throughout the document.

Comment 10. One KC suggested that the project team reach out to more members of the fishing community to request their input about what factors they think are important to consider about community well-being.

Response: Our goal was to seek as much feedback as possible from fishing community representatives (and other experts) in the design of this assessment tool. We took the following steps to incorporate their feedback into the assessment tool:

- (1) Prior to the design of the assessment tool, nine commercial and/or CPFV fishing community representatives were contacted by the project team to gain their input in the design of the assessment tool. Feedback from these conversations directly contributed to the design of the first draft of the assessment tool.
- (2) After a draft assessment tool and process design was developed, we held a webinar to gain feedback from a variety of experts and potential end users of the data, including eight representatives from commercial and/or CPFV fishing communities. We incorporated this feedback into the design of the assessment tool.
- (3) We plan to conduct a pilot test of the assessment tool and process design on one port and to gain feedback from participants about the assessment tool and the process. We will make modifications to the approach related to the feedback.

A multi-year, phased approach where workshops are first held with fishermen about what constitutes well-being followed by the design and implementation of the assessment tool could be a most robust approach. However, neither the budget nor timeline was available to support that kind of effort. Additionally, the limitations on in-person meetings related to the COVID-19 pandemic made it more difficult to incorporate this strategy. We were also worried about respondent fatigue and did not want to burden fishing representatives with many requests of their time.

Comment 11. One KC expressed it may be difficult for focus group participants to tease out socioeconomic impacts specific to MPAs when considering all large-scale management actions that have affected fishing communities.

Response: During the focus group discussions, the project team will encourage and remind participants to do their best to tease out changes related specifically to MPAs during administration of the MPA portion of the assessment tool. In addition, the overall fishing community well-being questions can provide an opportunity for fishermen to discuss other drivers of change beyond MPAs.

Comment 12. One KC suggested it might be fruitful to integrate the well-being questions with the MPA questions, for example to start on a topic and then drill down to how MPAs related to that topic. Others were not sure about whether integrating the questions in that way would be effective.

Response: The approach suggested has been considered by the project team, which in theory makes a lot of sense. However, when we considered the practicality of the conversations flow, while also being mindful of time management, we decided to keep the two sets of questions separate. In general, it seemed that when fishermen were talking about MPAs, they tended to want to talk about all aspects of MPAs at once. We thought that switching to MPAs every 2nd or 3rd question would make it challenging for participants to keep their train of thought and might lead to repetition in the conversation. The order and arrangement of the questions is something that we will test during the pilot focus group and is something that we could modify based on responses from fishermen.

Comment 13. Additional questions and concerns were raised regarding focus group participants' ability to convey the perspectives of their port rather than individual priorities or needs.

Response: We recognize this as an important consideration and plan to address it in several ways.

- We added a set of criteria for each question to help each participant consider the questions in the same way.
- Voting will be conducted before and after each question to help reduce responses that focus on the individual, rather than their broader fishing community. In the first rating, fishermen might be more biased towards their individual experience. However, the goal is the second rating, which follows a group conversation, might be more reflective of their view of the community overall.
- We also hope to address this in the selection of participants in the focus group discussions by selecting KCs or community leaders or experts who have some experience thinking about or advocating for their port or community as a whole.
- We plan to remind the participants throughout the process to reflect on the port or community experience rather than just their own.
- In materials leading up to the focus groups, we will send participants a list of the questions and will ask fishermen to discuss them with other members of their community (as they are able), so they can come to the focus group with a broader perspective.

Comment 14. Some KCs highlighted the need for clear messaging about what the draft assessment tool is and what type of data it will collect, given that not all components of the fishing community will be present during each focus group. Using the term 'port community' may be misleading, given that the project only focuses on one or two parts of the fishing community as a whole (i.e., processors and buyers will not be part of focus group discussions). There were suggestions to give the tool and project a more focused name.

Response: The language describing the assessment tool has been updated to be more specific about what it is. Specifically, we described the assessment tool as drawing from a Community-Expert approach that will ask members of the community to assess the status of

their ports. We have also clarified the data will reflect fishermen's perceptions of their fishing communities rather than on-the-ground assessments of the tangible reality at ports. Since commercial and CPFV fishermen are the intended participants, we replaced "port community" with "fishing community" to reflect this. We included language about the definition of the fishing community in our approach and made it clearer that not all members of the fishing community will be a part of these conversations -- as they will only focus on commercial and CPFV operators and not processors, support industries, and other key components of fishing communities. In communications about the study, we will be clear that results from our work show the views of two - but not all - components of fishing communities.

Comment 15. Several KCs expressed concern that the current focus group design only includes commercial fishermen. Due to constraints in the scope of the project, CPFV discussions are slated to take place in a smaller group setting and will not involve the use of clickers. Some KCs highlighted the importance of collecting comparable quantitative and qualitative data across both commercial and CPFV fishing communities. Several KCs asked about how the project was planning to consider fishermen who fish commercially and also operate CPFVs. It was highlighted that the responses of these 'hybrid' fishermen in a focus group setting could be affected depending on which perspective they are asked to answer from. Several KCs highlighted there is a larger CPFV presence in some ports and that these ports might benefit from the inclusion of more CPFV operators than the proposed 2-4 participants.

Response: This project was not funded to support a full assessment of CPFV operators at the same level as the commercial focus groups. Though CPFV group discussions were originally proposed to be more expansive in scope, the state requested the project team reduce our budget, which in turn reduced the scope for the CPFV component of this project. The switch to virtual focus groups did provide the project team with the opportunity to rethink aspects of the approach to CPFV. Instead of small conversations with 2-4 operators in each port, we anticipate having more detailed and lengthy conversations with 4-10 CPFV operators on a regional basis -- across several different ports. We have developed a list of port groupings for CPFV ([page 3 here](#)). These are designed to ensure that those ports with a higher CPFV presence have more representation and regions with more CPFV activity will have more focus groups. In line with the reduced scope of the CPFV assessment, the CPFV focus groups will be shorter in length with fewer questions compared to the commercial groups. Given that focus groups will include CPFV operators for multiple ports, we decided that it will be difficult to capture quantitative data on all of the indicators because the experiences could differ across ports, but we still plan to gather quantitative information about MPAs.

Comment 16. KCs noted several of the port groupings defined by the project team may make it difficult to comprehensively capture an accurate assessment of port community well-being and/or socioeconomic impacts due to MPAs. When only holding one discussion for commercial and CPFV fishermen respectively across ports in an area, the

subtle nuances of needs and priorities between ports may be lost by grouping ports together.

Response: The goal of this project and the MPA monitoring project is to gather statewide data related to the socioeconomics of MPAs and fishing communities. Conducting monitoring at a state scale in a state as big as California, with a limited budget, can be difficult. There is likely no cost-effective, replicable method that would capture all the nuance and experience with MPAs throughout such a large and diverse state. With this assessment tool and approach, we have aimed to design a method that can capture some of the nuance and diversity in experience of fishing communities with MPAs and well-being, while keeping that state scale in mind. Ratings can provide a quantitative snapshot, while the qualitative information will provide rich nuanced and context-specific information. The use of Community-Expert approaches with a deliberative process are proven methodologies for socioeconomic assessment, particularly when working at a large scale with limited resources. Additionally, this project will capture views and perspectives from each of the 24 major port or port groupings in California. These include extremely small and rural ports, large urban ports, and everything in between. We hope this approach will provide a window into the range of different experiences throughout the state. We also hope the broader scale findings from this project can serve as an invitation for future researchers to conduct more in depth, nuanced, and long-term studies of specific ports and places. We will always seek to be clear about the limitations of this work and what the findings are, but also are not able to communicate about fishing communities in California.

Comment 17. One KC suggested that the number of ports / port groups currently outlined (24 in total) be reduced to make additional project resources available to support discussions with CPFV operators.

Response: In order to capture the range of commercial fishing experiences throughout the state, we feel it is important — and more representative — to capture the experience across a range of port types and sizes. The deliberative process makes it difficult to hold commercial focus groups with multiple different ports as fishermen from different ports may rate their port experiences differently. Additionally, when the scope of the grant was determined in partnership with the state, it was confirmed that the available budget would focus on fully funding the commercial fisheries portion of the project and a more streamlined approach to CPFV would be designed. The recent switch to regional CPFV focus groups will, however, allow for longer and more in depth conversations to capture CPFV perspectives.

Comment 19a. A number of KCs expressed concern that individual ratings would not be presented but rather be merged into one rating for reporting and discussion purposes. This average rating would not demonstrate the full variety of perceptions within each focus group. To help address this, one KC suggested that an instrument could be designed to identify/contextualize the perspectives of individuals.

Comment 19b. Some KCs expressed concern that presenting ratings as numerical responses or indices on their own could be misleading without the underlying qualitative data related to context, and suggested that the project team be careful about the presentation of results (i.e., provide explanations/caveats about what the numbers may or may not reflect).

Comment 19c. One KC suggested that a summary of responses to individual questions be made available in addition to the overall ratings of each index (e.g., well-being [social, economic, environmental] and MPA).

Response: The project team has continued to consider how we plan to analyze and present the data. We agree that presenting rating data without providing the qualitative context could be misleading. We also agree that only presenting an aggregate score could mask the nuance and heterogeneity in responses. We will consider devising data display mechanisms that show the spread of data along with the average and work to make data with the spread available to those who are interested. We will aim to seek input on data analysis approaches and data visualization products from KCs who participated in the January 2020 webinar after the data have been collected.

Comment 20. There was a suggestion to report trends in the responses based on participant age and other demographic information.

Response: Given the deliberative approach to this study, we are not sure that this would be appropriate. We are asking Community-Experts to rate the views and perspectives of their community, not just as themselves as an individual. Given that task and focus, analyzing responses based on individual demographics may not be appropriate, however, it is something we could consider in the analysis.

Comment 21a. Broad support was shared for the project team's suggestion to develop a web-based tool similar to the Fisheries Data Explorer to communicate the project's key findings.

Comment 21b. KCs provided several other suggestions for ways to communicate findings from this project directly to key audiences (e.g., fishermen, decision makers, fisheries managers), including presentations, verbal reports, social media, newspaper, port association meetings, and other direct forms of outreach.

Response: The project team will be working on web-based communication tools for data display and will seek feedback from KCs and others during the development process. As a first step, we have merged the data explorer (which allows for the search of landings data by port and fishery for commercial and CPFV fisheries in California) with the project website (<https://mpahumanuses.com/data-viewer.html>). We will take into consideration all of the feedback about communication of findings when the project is complete.

Comment 22. There was interest expressed in reconvening the KCs after the pilot port focus group, and one KC expressed interest in being involved with fishing community engagement once focus group planning was underway.

Response: The project team appreciates this continued offer of support and looks forward to keeping an open line of communication with our KCs as the project progresses.

Appendix A.8 Key takeaways summary: Informing final project reporting products, key communicators webinar #1 - Thursday, May 27, 2021

Long-term Marine Protected Areas Socioeconomic Monitoring Program for California's Commercial and Commercial Passenger Fishing Vessel Fisheries

Informing Final Project Reporting Products Key Communicators Webinar #1 Key Takeaways Summary

The Marine Protected Area (MPA) Human Uses project team hosted the first of three webinars on May 27, 2021, to gain guidance and feedback from commercial fishermen and Commercial Passenger Fishing Vessel (CPFV) owners/operators*, researchers, and managers on the project's final reporting products.

The goal of the first webinar was to gather a small group of leaders, or Key Communicators (KCs), across these primary audiences and:

- Gain guidance from webinar participants on the design, utility, and accessibility of draft final reporting products, including a public-facing website.
- Provide the opportunity for webinar participants to help ensure that fishermen's port community well-being perspectives and available spatial information is effectively communicated and available to help evaluate the performance of California's marine protected area (MPA) network.

The following provides a high-level summary of the guidance and perspectives shared between webinar participants and members of the project team. A [feedback table](#) has been developed to capture feedback offered during webinar #1 on the draft reporting products. This is a living document that will be updated over the coming months to reflect input shared during future webinars, including tracking how the project team has considered input from participants in the iterations of product development.

Materials and other resources reviewed during this webinar, and linked throughout this document, include:

- [Webinar #1 Agenda](#)
- [Webinar #1 Slide Deck](#)
- [Draft user stories and draft inspiration concepts](#)
- [Draft annotated site map](#)
- [Project website](#), specifically the Data Viewer tab/page

For more information about the webinar or the MPA Human Uses project, please visit <https://mpahumanuses.com>. If you would like to participate in future webinar discussions or have questions about this project, please contact hello@strategicearth.com.

Key Takeaways

KCs were invited to provide feedback on the draft user stories, inspiration concepts, and an annotated site map. Highlights of this feedback and related discussions are included below. In some places, the project team has included additional context in addition to what was shared during the webinar in response to questions asked by participants. [This additional information is highlighted in blue text.](#)

*Unfortunately, there was no representation from the CPFV industry who were available to attend the webinar. The project team made the commitment to follow up with CPFV KCs to gain their insights and guidance on the draft reporting products.

Project Scope

At the start of the webinar, several KCs expressed an interest to learn more about how the MPA Human Uses project relates to other [statewide MPA monitoring work](#) that is currently underway. Participants were curious how the information gathered by this project specifically would be used to inform the adaptive management of California's MPA network.

- Fishermen and fishing industry representatives expressed their concerns about the negative impacts commercial fishermen have faced due to MPAs since implementation. They questioned how the information made available from this project would be used by decision-makers, including modifying MPA boundaries or adjusting permitted activities inside MPAs (e.g., allowing fishing of pelagic species). Another participant asked how fishermen's input will be considered as part of the scientific guidance used to evaluate the MPA network.
 - The goal of the MPA Human Uses project is to collect information about commercial fishermen's perspectives on their fishing community's socioeconomic health and well-being.
 - Information gathered during the focus group discussions, along with landings/logbook data and spatial data from 1992-2020, will inform California's 10 year MPA network performance review. Findings from this study, including trends in pounds landed, ex-vessel value, and participation in each fishery conducted in state waters over time will be shared publicly via our project website.
 - California Department of Fish and Wildlife (CDFW) and the California Ocean Protection Council (OPC), in partnership with the Fish and Game Commission (FGC), are starting to plan the [MPA Decadal Management Review](#). Key findings from the statewide monitoring projects, including the MPA Human Uses project, will help inform this 10-year review. Final reports for statewide monitoring projects will be submitted to California Sea Grant by November 30, 2021.
 - Based on an original list of [MPA performance evaluation questions](#), an expert working group has [released a report](#) that provides further guidance on MPA metrics of success. There were no fishermen on the expert panel, however, fishermen's concerns were included in the evaluation questions.
 - During the FGC's December 2022 meeting, CDFW will provide an update on the MPA network's performance based on available information. It is not anticipated there will be any management decisions made during this meeting. However, the statewide monitoring key findings may inform adaptive management decisions beyond 2022.
- Several participants expressed concerns about the connections between the Decadal Management Review and the [Governor's Executive Order](#) to conserve at least 30 percent of California's land and coastal waters by 2030.
 - An agency participant shared the focus of 30x30 is biodiversity conservation that is compatible with sustainable use. A fishing participant expressed that, from their perspective, the fishing industry is not open to expanding the MPA network through the 30x30 mandate. However, they would be open to a discussion if there was a science-based, fine-scaled approach to adjusting MPA boundaries to further habitat conservation.
- Several participants questioned the level of participation of each focus group, highlighting the involvement of a limited number of focus group participants is not representative of the entire port/port area's perspectives. One participant acknowledged that it is difficult to balance the accurate representation of fishing communities when different sectors have different concerns.
 - The focus groups were purposely designed to involve a small group (4-10 people) and involved fishing leadership who were able to participate productively, engage through the necessary technology, and consider the state of their fishing community beyond their individual experience. See [Appendix C, Participant recruitment and selection process](#) on page 22 of our project's assessment tool for more details.

- This methodology was designed to gain a snapshot of the conditions and perceptions of fishermen in the ports across California while also trying to reduce the burden and time commitment from fishermen. We sought to include participants that represented the diversity of fisheries, age groups, and types of fishermen. Attempts were made to involve fishermen who had been engaged in their fishery prior to MPA implementation together with new entrants to gain broad perspectives on port community well-being. There were some ports where only three participants were willing or able to participate and two port/port groupings where we did not gain participation at all. These cases will be highlighted and discussed in our final reporting.
- One participant highlighted their interest in better understanding the relationship between ocean conditions (upwelling, water temperature) and general production/effort and asked if this type of information would be provided through the other statewide monitoring projects.
 - An integrative analysis across all of the statewide monitoring projects will be conducted by the National Center for Ecological Analysis and Synthesis (NCEAS) early next year. This work is intended to address the types of questions raised by webinar participants.
 - The spatial data compiled in this project will provide information on how patterns of fishing pressure have changed over time. Integrating the data gathered in this project with ecological data is beyond the scope of our current project.
 - However, this integration is a priority for the state so we will be providing the data gathered in this project to inform the integrative analyses led by NCEAS. This will bring together the human and biological researchers to explore what is possible.
 - In our experience, a major hurdle is the mismatch in scale of data gathered. Ecological/biological data tends to be gathered at a much finer scale and fishing pressure data is often gathered at a much larger scale. This has been highlighted in the most recent MPA science recommendations as a key data gap to fill.
 - The project team, together with CDFW and OPC staff, acknowledged there is a growing need for improving communications with fishermen and others about the MPA monitoring work that has been conducted to date.

User Stories

The project team invited participants who could speak to our primary target audiences (commercial fishermen and CPFV owners/operators, researchers, and managers) to provide feedback on [draft user stories](#), a tool to better understand the website audiences and their needs.

- *Commercial fishermen are interested in:* learning where MPAs are having a positive impact on the fishing industry; better comparisons of data inside and outside MPAs to address questions regarding spillover, MPA location (i.e., habitat coverage), fish behavior, etc.; seeing data translated visually to show changes in landings data by port over time; hearing fishermen's perspectives on how MPAs are performing from their own voices (quotes, audio clips); changes in fleet dynamics and considering MPA impacts on different sized fishing operations; use available economic information to inform local city/county investment and funding eligibility.
- *CPFV owner/operators are interested in:* a non-CPFV participants shared they believed CPFV owner/operators are interested in understanding how ecological monitoring data complements socioeconomic data, including MPA contributions to rockfish recruitment/reproduction.
- *Researchers are interested in:* large-scale evaluation of MPA implementation to help make connections to other work/projects happening parallel to MPA monitoring; catalyzing or enhancing communications amongst researchers (e.g., social scientists working on human dimension projects with coastal communities); improve coordination amongst researchers to help reduce burden on fishermen's time and energy when volunteering to participate in multiple projects; ensure research boundaries and appropriate use of information is clear to avoid having data be used out of context.

- *Resource managers are interested in:* determining if there has been evidence of habitat changes due to the MPAs, specifically if there have been any improvements in habitat degradation; effectively communicating data and trends over time in a compelling and understandable way to target audiences.

Draft Annotated Site Map

Participants provided initial input on the [annotated site map](#), which outlines the envisioned structure and related components of the updated project website that will serve as our primary final reporting product.

California Fisheries Data Explorer

Participants provided feedback on the [California Fisheries Data Explorer](#), which is publicly accessible in its draft form. Specifically, participants shared the types of data querying and review that would be of interest to their peers and colleagues.

- Participants appreciated the number of fisheries included and that the data could be queried at a fine scale. One participant requested the data explorer be updated to also have the ability to aggregate all nearshore fisheries so the information could be viewed as a collection (rather than only individually like it currently is). Another participant suggested including seasonal vs. annual landings, which could be informative for some fisheries that are managed on a seasonal basis.
 - One participant asked how recreational fishing data would be included in the data explorer. The project team confirmed that California Recreational Fishery Survey (CRFS) sampler data will not be integrated into the data explorer.
- One participant suggested adding how the number of fishermen in a given fishery are calculated and making it clear that deckhands are not included.
 - [Currently, the data explorer has a module that pops up that provides definitions and the project team can clarify what we mean by number of fishermen there.](#)
- One participant highlighted issues with the San Diego fisheries, which currently do not show landings per port by species by a specific fishing method (e.g., harpoon, diving).
- One participant requested the project team consider offering users a way to embed the data explorer in external websites.

CDFW Landings/Logbook and Spatial Data

Participants asked questions about the specifics of the available commercial landings and CPFV logbook data from CDFW. This included understanding how landings data will be considered and whether connections will be made between focus group data and CDFW fisheries data.

- [The CDFW commercial landings data we analyze is summarized by who has made landings in a given port in a given year. If a permit holder didn't make landings, they would not show up in our analyses of, for example, the number of active fishermen in a given port in a given year.](#)
- [To the extent possible, we will integrate qualitative focus group data and quantitative landings/logbook data to tell a more holistic story for each port community. Our hope is the various data sets will corroborate / support each other to communicate in both qualitative and quantitative data the change observed in the port communities across California.](#)
- [During the webinar, it was clarified that the pre-MPA / post-MPA data is a modeled data set and not a survey of actual fishing effort. With this in mind, there is some ability to look at shifts over time and how MPAs displaced effort. Modeled data sets like this would become irrelevant if there was CPFV and commercial data on displaced effort.](#)

Port Profiles

The group discussed the profiles envisioned for each port that will include a summary informed by each focus group discussion, focus group participant quotes and audio clips, fishermen typology (i.e., a summary of age,

revenue, vessel length, etc. of fishermen in each port, and how these characteristics have changed over time), and graphs, maps, and other snapshots of focus group and landings/logbook data.

- One participant expressed the importance of having fine-scale fisheries data available in the port profiles, and other reporting for this project, to help guide a more tailored and precise approach to informed decision-making to balance conservation and human uses and economic resilience.
- One participant shared their concerns about summarizing information that was shared during the focus groups discussion. Specifically, they suggested the project team use caution when recapping to ensure there is not an overinflation of the perspectives shared or suggestion that the focus group participants represent the full port's viewpoints.
- One participant highlighted the connections and similarities of developing port profiles across a number of different state-funded projects, including a socioeconomic project currently underway to support the implementation of the [Marine Life Management Act \(MLMA\) 2018 Master Plan for Fisheries](#). Several participants emphasized the importance of establishing clearing communications channels between social scientists and agencies (e.g., CDFW). This could improve integration across fisheries social science efforts in California and help find synergies, leverage shared resources, reduce the burden on stakeholders who are invited to participate in multiple projects, and bolster how social science is integrated into better understanding and managing the human dimensions of marine resources.
 - A recommendation was made to include on the website a summary of funded research projects with sufficient detail to support interactions between the researchers and others involved.

Key Findings

Participants considered the most effective way to convey the project's key findings so this information could be useful to fishermen, researchers, and decision-makers.

- One participant suggested the key findings include the effects of COVID-19 on fishing communities, including its relationship to changes in port demographics. For example, are there greater impacts to ports located in less populated areas with fewer options for direct sales to consumers?
 - The project team has begun a [preliminary analysis of the results from the responses to questions related to the impacts from COVID-19](#). We hope to do follow-up analyses to explore how perceptions of COVID-19 impacts in California may be linked to demographic and geographic factors.
- Several participants suggested the importance of the key findings to focus on port infrastructure needs, which could be used by fishermen and others to help advocate for funding.
 - One participant expressed concerns that there is a disproportionate allocation of public funds available to research with limited dollars directed to funding port infrastructure projects. One participant highlighted that [AB 125](#), which relates to funding for secure, resilient, sustainable, and equitable food and farming systems, is essential for the economic and social well-being of the people of California. A participant highlighted this as a possible resource for infrastructure funding/resources.
 - An OPC staff person shared their appreciation for this type of feedback and direction from stakeholders. They mentioned in [OPC's recent 2020-25 strategic plan](#), there is a section on the 'blue economy'. The Fish and Game Commission's [Coastal Fishing Communities Project \(2016-18\)](#) also sought out to learn of fishing community needs related to changing ocean conditions, access to fishing, overall fishery management changes, increased global marketplace competition, aging infrastructure, and changing species diversity.

Appendix A.9 Key takeaways summary: Informing final project reporting products, key communicators webinar #2 - Friday, August 27, 2021

Long-term Marine Protected Areas Socioeconomic Monitoring Program for California's Commercial and Commercial Passenger Fishing Vessel Fisheries

Informing Final Project Reporting Products Key Communicators Webinar #2 Key Takeaways Summary

The Marine Protected Area (MPA) Human Uses project team hosted the second of three webinars on August 27, 2021, to gain guidance and feedback from commercial fishermen and Commercial Passenger Fishing Vessel (CPFV) owners/operators*, researchers, and managers on the project's final reporting products.

The goals of these webinars were to gather a small group of leaders, or Key Communicators (KCs), across these primary audiences and:

- Gain guidance from webinar participants on the design, utility, and accessibility of draft final reporting products, including a public-facing website.
- Provide the opportunity for webinar participants to help ensure that fishermen's port community well-being perspectives and available spatial information is effectively communicated and available to help evaluate the performance of California's marine protected area (MPA) network.

The following provides a high-level summary of the guidance and perspectives shared between webinar participants and members of the project team. A [feedback table](#) has been updated to reflect how input from participants has informed the final reporting products.

Materials and other resources reviewed during this webinar, and linked throughout this document, include:

- [Webinar #2 Agenda](#)
- [Webinar #2 Slide Deck](#)
- [Draft key findings and port profiles](#)
- [Webinar #1 Key Takeaways Summary](#)
- [Project website](#), specifically the 'Project Resources' page

For more information about the webinar or the MPA Human Uses project, including Webinar #1 materials, please visit <https://mpahumanuses.com>. If you would like to participate in future webinar discussions or have questions about this project, please contact hello@strategicearth.com.

Key Takeaways

KCs were invited to provide feedback on sample products that are in development, including two port profiles (Santa Barbara and Crescent City) and a key finding (COVID-19 Impacts and Adaptations). Highlights of this feedback and related discussions are included below. In some places, the project team has included additional context to what was shared during the webinar in response to questions asked/concerns raised by participants. [This additional information is highlighted in blue text.](#)

Project Scope

Similar to during the start of Webinar #1, several KCs expressed an interest to continue learning how the MPA Human Uses project relates to other [statewide MPA monitoring work](#), the [MPA Decadal Management Review](#),

*Unfortunately, there was no representation from the CPFV industry who were available to attend the webinar. The project team continues to take steps to follow up with CPFV KCs to gain their insights and guidance on the draft reporting products.

and the [Governor's Executive Order](#) to conserve at least 30 percent of California's land and coastal waters by 2030.

- Fishermen and fishing industry representatives sought to better understand how the information gathered through the MPA Human Uses project would be considered in the design and development of the state's 30x30 initiative. Specifically, several participants asked if focus group conversations about fishing community well-being could be included in 30x30 deliberations.
 - A state agency representative explained the results of the Review may be used to develop recommendations on better management of the MPA network. Prior to the completion of the Review, MPA network expansion will not be a component of meeting the state's 30x30 marine conservation goals.
 - An OPC representative added the state is in the midst of preparing for the first Decadal Management Review (Review) of the MPA Management Program. Governor Newsom's recent Executive Order seeks to advance land and coastal water marine conservation to protect California's biodiversity and build climate resilience. About half a million acres of California's oceans are "protected" (approximately 16 percent) through its network of 124 MPAs. While the State's MPA network is world-renowned for the conservation measures it advances for certain marine waters zero to three miles off California's coast, the creation of no-take and partial take areas was controversial in recreational and commercial fishing communities, as well as with some Tribes.
 - An OPC representative shared the Executive Order's commitment to reaching 30 percent of coastal marine conservation is based on advancing measures beyond the MPAs (such as enhancing biodiversity safeguards in National Marine Sanctuaries, National Estuary Programs, and Areas of Special Biological Significance) and through the collaborative stakeholder process. The final strategy for achieving protection of 30 percent of state coastal waters can be developed as part of the state biodiversity plan and modified as needed after completion of the Review of the MPA network. Additional information is available on [CNRA's 30x30 website](#).
- Several participants expressed concerns that existing MPAs would be made larger in size or that additional MPAs would be put into place in state waters to meet 30x30 objectives. A participant referenced a recent document, [Advancing 30x30: Conservation of Coastal Waters](#) released by the California Natural Resources Agency (CRNA) that speaks to the benefits of additional MPAs. They recommended the state agencies involved in the Review and 30x30 become better aligned in their communications and messaging.
 - An OPC representative clarified OPC is anticipating a 30x30 pathways document to be released this fall, with more guidance on how the state will advance this initiative. MPA expansion is not the singular goal. MPAs are one competent of protection, but many other avenues are being considered. The [30x30 coastal waters summary](#) does reflect on the importance of MPAs, however, the State is committed to looking at all forms of protection, including National Marine Sanctuaries, conservation areas, etc.
- There were additional questions raised as to whether expanding or adding MPAs was an appropriate measure when the evaluation of the MPA Network's performance is still ongoing. One participant highlighted that any additional MPAs that restrict fishermen's access to resources would be detrimental to California's fishing communities, particularly for younger/newer entrants just entering the fishing business. A participant emphasized that MPAs are not the only challenge facing fishermen, citing offshore wind as another potential impact.
 - A project team member shared this project report will set the context of challenges fishing communities are facing and also summarize fishermen's perceptions and experiences about the MPA implementation process. The report can be used by fishermen as additional data to convey key messages to decision-makers regarding how additional/expansion of the MPA network may affect the industry. For example, many focus group participants highlighted that ocean resources

are healthy statewide. However, due to management restrictions and high operations costs, it is difficult to make a viable living off fishing alone.

- Participants asked how the information gathered by this project specifically would be used to inform the adaptive management of California's MPA network and if adaptive management of MPAs would take place before, after, or during the Review process.
 - A state agency representative shared that during the Fish and Game Commission's December 2022 meeting, the California Department of Fish and Wildlife (CDFW) will submit a technical report and provide an update on the MPA network's performance based on available information. This will include considering the [seven statewide monitoring projects](#) that are currently underway (2019-2021). It is not anticipated there will be any management decisions made during this meeting. However, the statewide monitoring key findings may inform adaptive management decisions in 2023 and beyond.
 - They added that thanks to input shared via the focus group discussions, managers are understanding the need for better open lines of communication with the fishing industry to ensure fishermen have access and are aware of MPA Management Program information as it becomes available.

Port Profiles

The project team invited participants to provide feedback on the [draft port profiles](#) (Santa Barbara and Crescent City) to learn if the information was informative, useful, and presented in an understandable way.

- Several participants suggested including the number of focus group participants in each port profile would make it clearer that the perceptions shared may not reflect all of the perspectives of the port.
 - The project team agreed to include the number of focus group participants within each port profile (currently included in each focus group summary). There was also an agreement to make the [recruitment process document](#) readily accessible on the website.
- At the time when the MPA Human Uses project was being piloted (Spring 2020), the Review and 30x30 were not on fishermen's radars. KCs are now recognizing the importance of the data collected through the program and are concerned that there was insufficient participation to ensure the information is reflective of all California commercial fishermen.
 - Project team members shared that active attention was placed on engaging fishermen and others in the design of this project, including the process to recruit participants. This involved initial scoping calls conducted with select Key Communicators and a [webinar with Key Communicators](#) held in January 2020. Additionally, a pilot focus group was conducted where real-time feedback was received on the focus group process and our approach was subsequently updated to reflect this feedback.
 - The project team sought support and guidance from fishing leadership up and down the state to help get information out to their peers and solicit participation in the focus group conversations. To have this and any project like it be successful, there is a need for additional support from fishermen, researchers, managers, and others working in these port communities to help inspire and promote participation and involvement.
 - The project team appreciates that a lot has changed over the past 1.5 years. With the upcoming Review and 30x30, in addition to other pressures facing fishing communities. With this in mind, there is an increasing need for useful and accurate human dimensions data and information. The project team welcomes continued feedback on how projects like this can be most helpful to fishermen, decision-makers, and researchers.
- Based on the changing political conditions fishermen find themselves in and now with a better understanding of the connections to this project and the Decadal Management Review, a participant questioned if the quality of the focus group conversations (i.e., information shared by fishermen) would

have been different. Another participant asked if focus group participants were asked about their confidence in the future of commercial fishing in California.

- A project team member shared that the risks to participating in the focus group discussions were identified at the start of each conversation, including the uncertainty with how the information collected would be used to inform adaptive management of the MPA Network. The project was designed to monitor human dimensions at a statewide scale, while also considering port-specific information. Based on feedback from KCs, 1-on-1 interviews were avoided to try to reduce burnout from fishermen who are regularly requested to engage in these time-intensive activities. The goal of the project is for focus group participants' views on MPA to come through final products to accurately convey concerns and strengths, which will be useful for both fishermen and managers.
- Focus group participants were asked a series of questions about their perspectives on the future of marine resource health, as well as the recruitment of new participants in the fisheries and access to marine resources. All of the questions asked during the focus group are available in the Project Resources section of our website: <https://mpahumanuses.com/resources.html>. See 'prep packets' for both commercial and CPFV focus groups.

Key Findings

The project team invited participants to provide feedback on a [draft key finding](#) (COVID-19 Impacts and Adaptations) to learn if the information was informative, useful, and presented in an understandable way.

- Several participants expressed the importance of having the key findings connect to the effects of MPAs on fishermen's well-being and livelihoods. While KCs appreciated the opportunity to review the COVID-19 key finding, focus group comments on MPAs should be prioritized in the final reporting and website. It was also suggested that fishermen's well-being also be framed within the context of MPAs.
 - The project team shared the COVID-19 question was added to the focus group discussion at the state's request. The project's methods were designed to be responsive to changes/disturbances that may arise during the course of the project.
 - The project team will consider sharing an additional draft key finding with the Key Communicators when available. Additionally, the well-being perspectives of the focus group participants are considered within the MPA context.
 - [Anticipated Key Findings to be included on the website/final report include:](#)
 - [Regional comparison of MPA outcomes](#)
 - [Comparison of well-being across port-based fishing communities](#)
 - [Fishing community engagement/participation](#)
 - [COVID-19 impacts on fishing communities](#)
 - [Spatial and fisheries data analyses](#)
 - [CPFV \(will consider the above 5 themes/findings\)](#)

Updated Website

Participants provided additional input on what they would like to see included as part of the updated website, including content, design, and functionality.

General Design and Functionality

- A participant made suggestions to increase the size of the text/font used on the site, as well as to include more graphics and photos. Another participant suggested making maps interactive where information pops up when hovered over.
- A participant asked why the MPA maps on the website include federal MPAs, but other areas fishermen would consider MPAs (e.g., Rockfish Conservation Areas, Cowcod Conservation Areas, etc.) are not captured. They asked if there is a reason some closed areas are displayed while others are not.

- A project team member clarified the data layer comes from the CDFW GIS archive and included federal MPAs. The project team is updating spatial data relevant to this project and will note restricted areas beyond state MPAs.

Focus Group Summaries

- Several participants expressed concerns that the focus group summaries are not being circulated and reviewed by all commercial and CPFV fishermen within a given port/port grouping. Providing an opportunity to ask (via email, survey, etc.) if any information is missing, inaccurate, etc. was recommended as an important process step. The suggestion was made to include on the website a place where fishermen could submit comments on port profiles, focus group summaries, and other outputs if their perspectives were not captured.
 - While there are no plans or capacity to share each port/port grouping summary with all local permit holders, the project team will consider how to receive feedback from website viewers. The project team will discuss the idea of receiving comments while considering the feasibility of monitoring this type of feature, particularly when the website is intended to be hosted long-term by the state.
- A participant acknowledged that fishermen out of Monterey chose not to participate in the focus group conversations and asked how this would be noted in the final reporting and on the website.
 - The project team will work to update the website to identify those ports/port groupings that did not participate in a focus group conversation. Additionally, the rationale will be included in the Fishing Community Engagement/Participation key finding for why certain ports chose to not participate.
- During the first final reporting webinar, participants discussed the need for final reporting products to clearly convey demographics information of those who participated in the focus groups to help interpret MPA effects. A participant asked if there was any progress on this.
 - The project team acknowledged they continue to hear the need for demographic information of those who participated in the focus groups. This will be summarized by port/port group-based focus group as part of the final reporting. Additionally, the team is working on including longitudinal demographic information across all permit holders to look at shifts since 1992.

CDFW Landings/Logbook and Spatial Data

Participants asked questions about the specifics of the available commercial landings and CPFV logbook data from CDFW.

- A participant inquired how far back the spatial data go, and specifically if it includes the Northern Channel Islands MPA process (prior to 2005).
 - The modeled spatial data ranges from 2005 to 2020 and the tabular data from 1992 to 2020. We used this range of years for the spatial modeling because the Ecotrust data were initially collected starting in 2005 and this range provides a pre-MPA summary along with an estimation of activity since MPA implementation.
- Another participant asked how the project team extrapolated CDFW's landings data which is at a scale of 100 square miles to the 1 square mile scale.
 - The project team developed a refactoring value from the Ecotrust survey data gathered during MPA planning and implementation process. This value was used to redistribute the total pounds caught within a 100 square mile area to 1 square mile blocks.
- A participant recommended including sea urchin logbook data, as well as focus on the near shore fisheries that have been most affected by MPAs (lobster, nearshore finfish, sea urchin), and group these together spatially. They suggested it could be helpful to have an umbrella of all California fisheries and then drill into details of specific fisheries.

- Ecotrust's data-sharing agreement with CDFW was focused on commercial landings across all species and fisheries. The project team did not request the urchin dive logbooks, so developing the urchin spatial information for this analysis is not feasible at this late stage of our study. Part of our recommendations includes gathering better source data like the urchin logbooks to do future comparative analyses.
- A participant shared that since MPA implementation, there has been an 80% drop in sea urchin landings due to lack of kelp, warm water blob, El Niño conditions, etc. Currently, purple urchins are not harvestable. During the MPA planning process, fishermen brought up the point that culling would be a positive for urchin/kelp populations. However, at the time, they were told by scientists that this was not a cause for concern. They questioned how this will be considered in the final reporting for this project.
 - The final website will consider spatial and demographic data to illustrate shifts in landings over time. Urchin landings from 2005-2020 will be included in the spatial dataset, and the project team is currently working to update the Data Explorer to be responsive to these questions/needs.

Appendix A.10 Key communicator feedback table: Final reporting product development

Webinar	Topic Area	Feedback / Comment	PT Approach for Integration of Feedback (living document)
1	User stories: commercial	Nearshore fisheries hammered - In addition to MPAs and RCAs now have whale situation, 30x30, wind farms, RCA, MLPA // MPAs are far down on the list of threats - Wants a glimmer of hope that MPAs have some positive impact on fishing industry	Project Team to consider and integrate suggestion
1	Website: User stories - Commercial fishermen	User stories: Commercial fishermen more scientific data, studies, underwater photography, video (habitats) comparing inside and outside of MPAs // Want to know what is happening inside and outside MPAs // Do MPAs contain the intended habitats? // Is spillover real? // How are fish in MPAs are behaving? // Folks set a lot of gear on the borders of MPAs, is spillover real?	Project Team to consider and integrate suggestion
1	Website: User stories - Commercial fishermen	User stories: Commercial fishermen landings data by port group, like concept (of pick a port, pick a year, look at landings, look at revenue) but not seeing high enough resolution in the breakdown by year	Project Team to consider and integrate suggestion
1	Website: User stories - Commercial fishermen	User stories: Commercial fishermen Summary statement about fishermen's observations on performance of MPAs // read most of focus group summaries, seems like fishermen weren't observing spillover or increase in populations // "I want to hear from fishermen in their own voices about how MPAs are performing"*** Interest in audio clips of fishermen from focus groups - Let communities speak for themselves	Project Team to consider and integrate suggestion
1	Website: User stories - Commercial fishermen	Relationship between ocean conditions (upwelling, temp) and general production/effort. There will be a product like this in other long term monitoring projects // Central California Ocean Observation System Integrative analysis once individual projects have created their products // look at a time series of landings data and ocean events + special info on how harvest patterns have changed compared to biological and ecological data Ecological reports and other decadal review info will be available in Dec	Project Team to consider and integrate suggestion
1	Website: User stories - Charter boat owners / operators	If there is a rockfish fishery commercially? can we learn about recruitment and reproduction from the MPAs // ***"How does ecological monitoring data complement socioeconomic data?" Census of potential customers? Number of permit and license sales? Fuel consumption increase? Safety at sea, coast guard data, changes in accidents near and far from MPAs?	Project Team to consider and integrate suggestion
1	Website: User stories - Resource managers	Habitat // evidence for habitat changes as a result of MPAs? During the MLPA process heard from conservation that needed to repair damaged habitats	Project Team to consider and integrate suggestion
1	Website: User stories - Resource managers	Managers want ways to communicate data and trends to their network/the public, increase access to information // ***"I want easy understandable compelling ways to show trends over time to various audiences"	Project Team to consider and integrate suggestion
1	Website: User stories - Commercial fishermen	Interested in fleet dynamics - trawl fishery moves along, small boats left out	Project Team to consider and integrate suggestion

Webinar	Topic Area	Feedback / Comment	PT Approach for Integration of Feedback (living document)
1	Website: User stories - Researcher	<p>bigger picture work on MLMA evaluation and implementation // How can researchers engage with this information, and connect other projects and efforts that may complement this and add some different dimensions to it // How this can catalyze or enhance communication among researchers e.g. social scientists end up badgering people quite a bit // can this resource help us engage more effectively with audiences without over engaging and taking up too much stakeholder time</p> <p>How to connect different information resources // minimize need to pester stakeholders for information</p> <p>Concern (ethical/research quality) that people will take information out of context // Explain boundaries for appropriate uses of info (what research outputs can do, and what is not appropriate for these outputs)</p> <p>John Mellor - offering use of his boat to show researchers how things have changed over time // agree that you need to look at the big picture</p>	Project Team to consider and integrate suggestion
1	Website: User stories - Commercial fishermen	<p>As a port representative in Santa Barbara // effort at the port level to get the city to invest in fishing infrastructure, helpful to put a dollar value on fish to increase investments. Economic activity determines Army Corps of Engineers funding // ****</p> <p>I want to see data on dollar values and economic activity to inform city investment and funding eligibility”</p>	Project Team to consider and integrate suggestion
1	Website: User stories - Researcher	How long will website be available, updated, etc.?	Project Team to consider and integrate suggestion
2	Website	Why is there no plan to vet the focus group summaries with fishing communities? Could share with community and add feedback received, would increase credibility from stakeholder perspective. Ask: is anything missing? Not accurate? Possibly circulate a survey that groups can share? Need to clearly explain what info will be used for.	While there are no plans or capacity to share each port/port grouping summary with all local permitholders, the Project Team will consider how to receive feedback from website viewers. We will need to be mindful of how this feature continues to be monitored and responded to once the website is hosted by the state.
2	Website	Who's the audience for the website? Given value/impact of information, imagines folks will be interested in commenting/providing own input - what does this look like? How are we encouraging capability of providing insight and feedback (if not consideration yet, this should be)	
2	Website	When hover cursor over maps, does this highlight info, or need to scroll down page? Simplicity would be helpful, suggestions of pop-ups to help with site navigation	Thank you, updates will be made to website design
2	Website	Consider the priority of pages, move the MPA perceptions front and center as this will be the most important for fishermen	Thank you, updates will be made to website design
2	Website	Text seems small (line under Creativity seems small, so does quote), what do we want to highlight? Include more graphics/photos, similar to figures in focus group summaries	Thank you, updates will be made to website design
2	Participation / Website	Understand that the project team attempted to have Monterey fishermen participate, are there plans to be in touch with them? Would be helpful to indicate that this port/port grouping did not participate on the final website	The Project Team will work to update the website to identify those ports/port groupings that did not participate in a focus group conversation. Additionally, in the Fishing Community Engagement/Participation key finding, additional rationale for why certain ports chose to not participate will be included.
2	Website/Final reporting	During last webinar, conversation regarding demographics. Specifically, the lack of demo info included in reporting materials. Has there been progress on this (ie, age, time spent fishing pre/post MPAs) and incorporation into final products? This info will help with interpretation of MPA impacts (south compared to north, etc.)	Continue to hear the need for demographic information of those who participated in the FGs. This will be summarized by port as part of the final reporting. Additionally, the team is working on including longitudinal demographic information across all permitholders to look at shifts since 1992.
2	Website/Final reporting	MPA maps on website include federal MPAs, but other areas fishermen would consider MPAs (RCAs, CCAs) aren't. Why choose some to display rather than others (or all)?	The data layer comes from GIS archive from CDFW. The project team is updating spatial data piece and will note restricted areas beyond state MPAs.

Webinar	Topic Area	Feedback / Comment	PT Approach for Integration of Feedback (living document)
2	Website/Final reporting	Were focus group participants asked about confidence of future of commercial fishing in CA?	Yes, a list of all of the questions asked during the focus group is available in the Key Resources section of our website, see 'prep packets' for both commercial and CPFV focus groups. https://mpahumanuses.com/resources.html
1	Data Explorer: Audience Needs	California fisheries data explorer issues. We need to be able to see landings in lbs as well as value per species. Data errors for San Diego fisheries that I know about. I did find a way to get the landing per port by species, but there problems with species/landing methods, such as spot prawn landed by harpoon and diving.	Project Team to consider and integrate suggestion
1	Date explorer: Audience Needs	Wish we could look at CDFW landings data. Shortcoming example, nearshore finfish is broken into so many different fisheries, would love to aggregate all nearshore fisheries; Would like to be able to aggregate fisheries and have it split as it currently is	Project Team to consider and integrate suggestion
1	Data explorer: Audience Needs	Seasonal vs annual landings - for some spp (squid) managed on a seasonal basis so multiple ways of logging data. How capturing? Annually? Seasonally? Explore visualizing data differently i.e. Seasonally	Project Team to consider and integrate suggestion
1	Data explorer: Audience Needs	Can we look at recreational impact? Using recreational fishermen data?	Project Team to consider and integrate suggestion
1	Data explorer: Audience Needs	Data viewer is very helpful // Is there a way to take this data and embed it into our own websites?	Project Team to consider and integrate suggestion
1	Draft site map	Is the number of fishermen based on permit holders or commercial fishing licenses - and if the latter how do assign those to a specific fishery (since a CFL isn't fishery specific)?	The CDFW commercial landings data we analyze is summarized by who has made landings in a given port in a given year. If a permit holder didn't make landings they would not show up in our analyses of, for example, the number of active fishermen in a given port in a given year.
1	Draft site map	How do you calculate the number of fishermen? Does this include deckhands, etc.? Is there somewhere on the website that explains this? When can we share this website with others?	Yes, that is good feedback, we can add to the fisheries data explorer info tab. We have a module that pops up that provides definitions. We can clarify what we mean by number of fishermen there.
1	Draft site map	Would love data connections to be made across topics - social, economic, ecological, etc.	Project Team to consider and integrate suggestion
1	Spatial data: audience needs	Curious if in the final report there will be linkages between port summary data (well-being, perceptions, etc) and quantitative CDFW data featured on the website	Yes, to the extent possible, we will integrate qualitative focus group data and quantitative landings/logbook data to tell a more holistics story for each port community. Our hope is the various data sets will corroborate / support each other to communicate in both qualitative and quantitative data the change observed in the port communities across California.
1	Spatial data: Audience needs	Engage the issue of displaced effort, how it affects MPAs and health of the ecosystem. Will it be fine enough to show where the effort went to and show how displaced effort impacted ecosystem	The spatial data compiled in the project will provide information of how patterns of fishing pressure has changed over time. Integrating the data gathered in this project with ecological data is beyond the scope of our current project but is a priority for the state and so we will be providing the data gathered in this project to the integrative analyses lead by an NCEAS group that will bring together the human and biological researchers to explore what is possible. In our experience, a major hurdle is the mismatch in scale of data gathered. Ecological/biological data tends to be gathered at a much finer scale and fishing pressure data is often gathered at a much larger scale. This has been highlighted in the most recent MPA science recommendations as a key data gap to fill.
2	Spatial and Fisheries Data	How far back does the spatial data go? Does it include the Northern Channel Island process (prior to 2005)?	The modeled spatial data ranges from 2005 to 2020 and the tabular data from 1992 to 2020. We used this range of years for the spatial modeling because the Ecotrust data were initially collected starting in 2005 and this range provides a pre-MPA summary along with an estimation of activity since MPA implementation.
2	Spatial and Fisheries Data	How did the project team extrapolate CDFW's landings data which is at a scale of 100 square miles to the 1 square mile scale?	The project team developed a refactoring value from the Ecotrust survey data gathered during MPA planning and implementation process. This value was used to redistribute the total pounds caught within a 100 square mile area to 1 square mile blocks.
2	Spatial and Fisheries Data	Recommend included sea urchin logbook data, as well as focus on the near shore fisheries that have been most affected by MPAs (lobster, nearshore, sea urchin) and group these together spatially. Could be helpful to have umbrella of all CA fisheries and then drill into details os specific fisheries	Our data sharing agreement with CDFW was focused on the commercial landings across all species and fisheries. We did not request the urchin dive logbooks, so developing the the urchin spatial information for this analysis is not feasible at this late stage of our study. Part of our recommendations includes gathering better source data like the uchin logbooks to do future comparative analyses.

Webinar	Topic Area	Feedback / Comment	PT Approach for Integration of Feedback (living document)
2	Spatial and Fisheries Data	Since MPA implementation, there has been an 80% drop in sea urchin landings due to lack of kelp, warm water blob, El Nino, kelp wipeout affects urchin bc no food, etc. Currently, purple urchins are not harvestable. During the MPA planning process, fishermen brought up point that culling would be a positive for urchin/kelp populations, told by scientists not to worry about this. How will this be considered in the final reporting?	The final website will consider spatial and demographics data to illustrate shifts in landings over time. Urchin landings from 2005-2020 will be included in the spatial dataset and the project team in current working to update the Data Explorer to be responsive to these questions/needs.
1	Port profile: audience needs, 30x30	30x30; this kind of fine scale reporting allows nuance in how MPAs are crafted // aggressive or blind conservation // use this data to expand conservation in an intentional way that support socio economic and ecological outcomes for fishery participants “Don’t keep using hammers, when you could be using finer scale tools to protect habitat at large”	Yes, fine scale reporting on fisheries data can benefit many initiatives to both conservation marine resources and help fishing communities thrive. We hope our data can be utilize to support informed decision-making to balance conservation and human uses and economic resilience.
1	Port profile: partnership	We’re also developing port profiles for an MLMA-related project. Might be good to connect these.	The project team is very excited about the possibility of working to integrate work from this project with ith other state fisheries social science projects such as those connected to the MLMA. We plan to keep in communication with the leaders of these other projects to seek areas for collaboration and integration of the findings.
1	Port profile: audience needs, 30x30	Need to use different process than MLPA to get at 30x30 goals; Attempting to summarize comments from focus groups discussions // summaries rang true of what i know but, summarizing is still tricky (overinflate or suggest all opinion)	The project team attempted to develop a robust approach to the recruitment of participants in the focus group conversations. We developed this as a methodology to gain a snapshot of the conditions and perceptions of fishermen in the ports across California while also trying to reduce the burden and time commitment from fishermen. We sought to include participants that represented the diversity of fisheries, age groups, and types of fishermen. Additionally, we asked participants to speak to the conditions and perceptions across their whole port. Detailed information on the focus group design and recruitment process can be found here in Appendix C on page 22.
1	Port profile: audience needs / collaboration	Comment illustrates the disconnect between diverse researchers, esp. social scientists, who don’t seem to know what each other is doing. If this website is hosted for the long-term, it would be an extraordinary resource if there was a summary of funded research initiatives with sufficient details to facilitate interaction. Might also address some of the issues of stakeholder burnout. Suggestion for researchers and the agencies to improve communicating between MLPA and MLMA related work.	We wholeheartedly agree that more integration across fisheries social science efforts in California would help find synergies, leverage shared resources, and bolster how social science is integrated into better understanding and managing the human dimensions of marine resources. More integration is needed across fisheries social science. A challenge to maintaining a regular working groups tends to be the capacity to be responsible for organizing such gathering. If people find our project website useful it could be updated to serve as a sort of California human uses one stop shop for information/data. That might be a bit getting ahead of ourselves but centralizing access to information and serving it up in an engaging format I think is a common goal we have heard across stakeholders.
2	Port Profile	How many people participated in the Santa Barbara focus group? How many commercial fishermen in SB total? Will there be vetting to see if these are representative of port as a whole? Need to make it clear the focus group conversations may not be reflective of the entire local fleet.	The project's recruitment process was co-created in partnership with Key Communicators in early 2020. Considerations for participation were based on available lists of permitholders operating out of each port/port grouping, guidance offered by one or more port liaisons (fishermen or industry leaders who are well-versed in fishing participation within their local port), and existing relationships held by the Project Team. In Santa Barbara, for example, this included working with the Commercial Fishermen of Santa Barbara (CFSB). While there is not the intention to vet the summaries with each port, the Project Team will consider how to receive input from fishermen not involved in a focus group discussion who may feel perspectives are missing from the information captured.
2	Port Profile	Would like to have the number of participants in each focus group included in the port profiles. Suggestion to include an opportunity to provide input/comments if there are other perspectives by fishermen out of a given port.	While included in the summaries themselves, the Project Team will include the number of focus group participants within each port profile, together with a link to the recruitment process document. The Project Team sought the support and guidance from fishing leadership up and down the state to help get information out to their peers and solicit participation in the focus group conversations. To have this and any project like it be successful, there is a need for additional support from fishermen, researchers, managers and others working in these port communities to help inspire and promote participation and involvement.

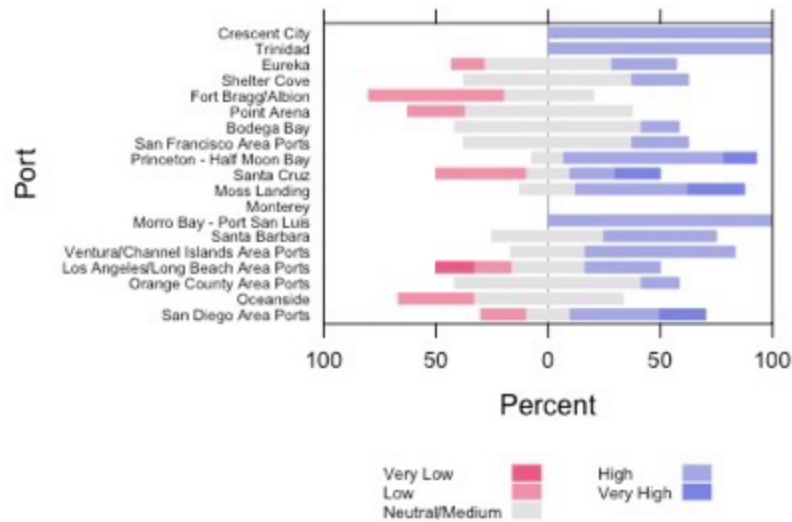
Webinar	Topic Area	Feedback / Comment	PT Approach for Integration of Feedback (living document)
2	Port Profile	During pilot, fishermen didn't realize the potential impact of this project. Individuals have been cautious to participate based on lack of trust, schedules, etc. Concerns that the makeup of certain focus groups are not reflective of the port. Can this be reflected in the port profiles?	Active attention was placed on engaging fishermen and others in the design of this project, including the process to recruit participants. This involved an initial webinar with Key Communicators, as well as a pilot focus group where real-time feedback was received on the focus group process and our approach was subsequently updated to reflect this feedback. We also appreciate that a lot has changed over the past 1.5 years. With the upcoming 10-year management review of the MPA Program and the Governor's 30x30 Initiative, in addition to other pressures facing fishing communities, there is an increasing need for useful and accurate human dimensions data and information. We welcome continued feedback on how projects like this can be most helpful to fishermen, decision-makers, and researchers.
2	Port Profile	Based on the changing political conditions fishermen find themselves in and now with a better understanding the connections to this project and the Decadal Management Review, wondering if the focus group conversations (i.e., information shared by fishermen) would have been different knowing what we do now?	The risks to participate in the focus group discussions were identified at the start of each conversation, including the uncertainty with how the information collected would be used to inform adaptive management of the MPA Network. The project was designed to monitor human dimensions at a statewide scale, while also considering port-specific information. We also intentionally avoided 1-on-1 interviews - based on feedback from Key Communicators - to try to reduce burnout from fishermen who are regularly requested to engage in these time-intensive activities. Our hope is that MPA views will come through final products to accurately convey concerns and strength, which will be useful for both fishermen and managers.
2	Port Profile	Were focus group participants asked about confidence of future of commercial fishing in CA?	Yes, a list of all of the questions asked during the focus group is available in the Key Resources section of our website, see 'prep packets' for both commercial and CPFV focus groups. https://mpahumanuses.com/resources.html
1	Key findings / themes across state: COVID-19	- COVID impacts linked to demographics? E.g., In less densely populated regions unable to sell direct to consumer	The project team has begun a preliminary analysis of the results from the responses to questions related to the impacts from COVID-19. You can see a presentation of these preliminary findings here . We hope to do follow-up analyses to explore how perceptions of COVID-19 impacts in California may be linked to demographic and geographic factors.
1	Key findings / themes across state: infrastructure	- General sense from fishing communities across the coast who feel OPC is putting lots of money into research/academia // Coastal Conservancy used to fund infrastructure projects - less resources invested in infrastructure by OPC // requesting more balanced allocation of resources to city council supported infrastructure projects	<p>The OPC welcomes this type of feedback and direction from stakeholders. Specifically, in the OPC's recent 2020-25 strategic plan there is a section on the 'blue economy'.</p> <p>The Fish and Game Commission is another decision-making body involved in gathering information fishing community needs/priorities in relation to changing ocean conditions.</p> <p>AB 125 has allocated funding to the secure, resilient, sustainable, and equitable food and farming system is essential for the economic and social well-being of the people of California. A participant highlighted this as a possible resource for infrastructure funding/resources.</p>
1	Key findings / themes across state: infrastructure	AB 125 if passed would generate \$ to SCC for infrastructure Info collected in study about infrastructure will also show the need up and down the coast for infrastructure - could be used to advocate for funding	See line 40
2	Key finding	Recommend the MPA perspectives are front and center, followed by well-being. This is an MPA project, so key findings should be focused on MPAs. Matter of priority, understanding how this info will be used in 10-year review. There is good information in well-being sections, hope that suggestions/recommendations will be considered by managers and decision makers. Suggest the well-being perspectives be put into the context of MPA impacts.	<p>The COVID-19 key finding was shared as an example of one of the key findings planned for the final reporting. Additional anticipated Key Findings to be included on the website/final report:</p> <p>Regional comparison of MPA outcomes Comparison of well-being across port-based fishing communities Fishing community engagement/participation COVID-19 impacts on fishing communities Spatial and fisheries data analyses CPFV (will consider the above 5 themes/findings)</p> <p>The Project Team will consider sharing an additional draft key finding - perhaps the Regional Comparison of MPA Outcomes - with the Key Communicators when available.</p>

Appendix B. Results

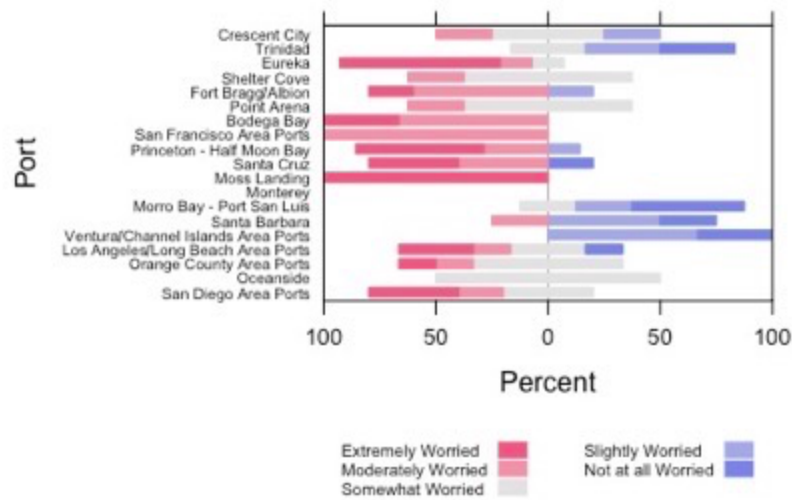
Appendix B.1 Commercial fishing and CPFV focus group question by question responses

The following series of 18 figures shows the percent of participant responses to commercial fishing focus group well-being and MPA questions per response type by port/port group, ordered geographically from north to south. There are no data for Monterey because we were unable to hold a commercial fishing focus group with individuals out of that port. All other missing data are due to the question not being asked during the focus group.

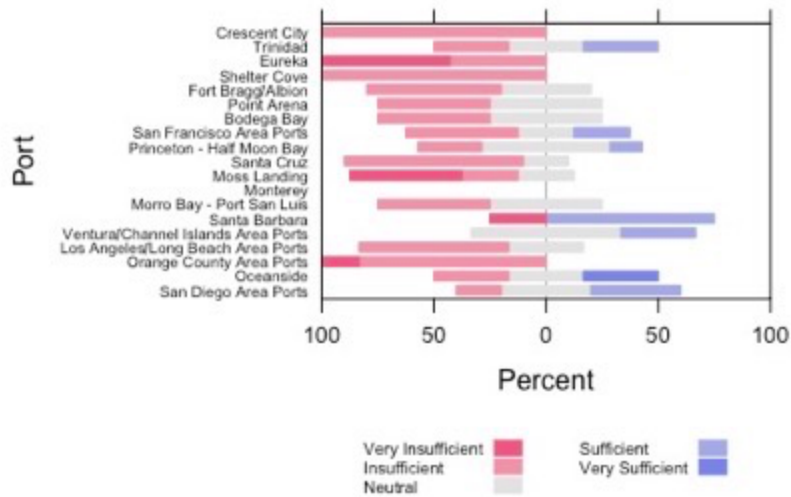
Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



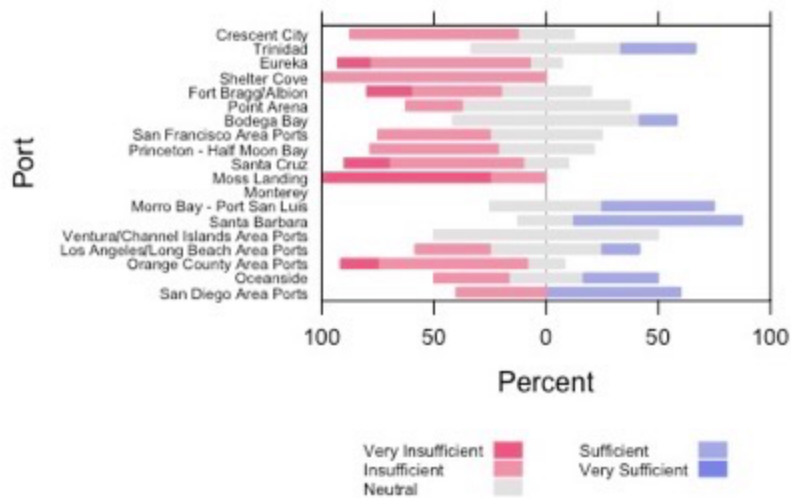
Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



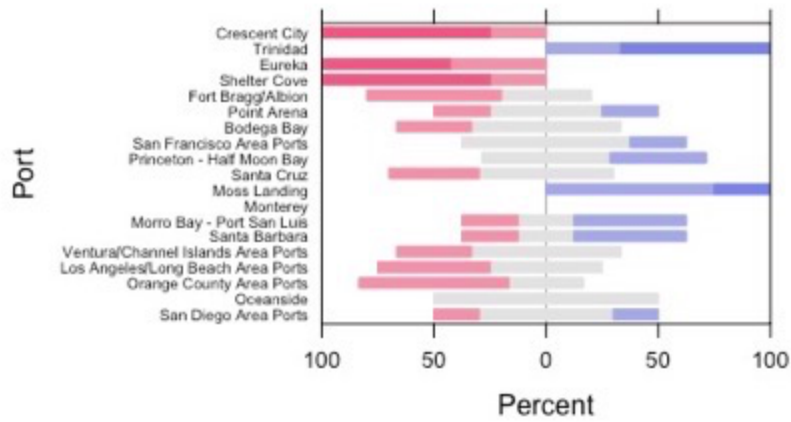
Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



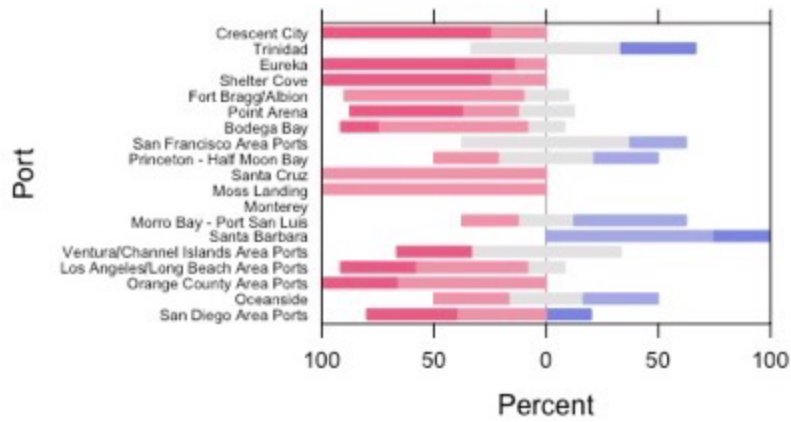
Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Very Poor
Poor
Neutral/Acceptable

Good
Very Good

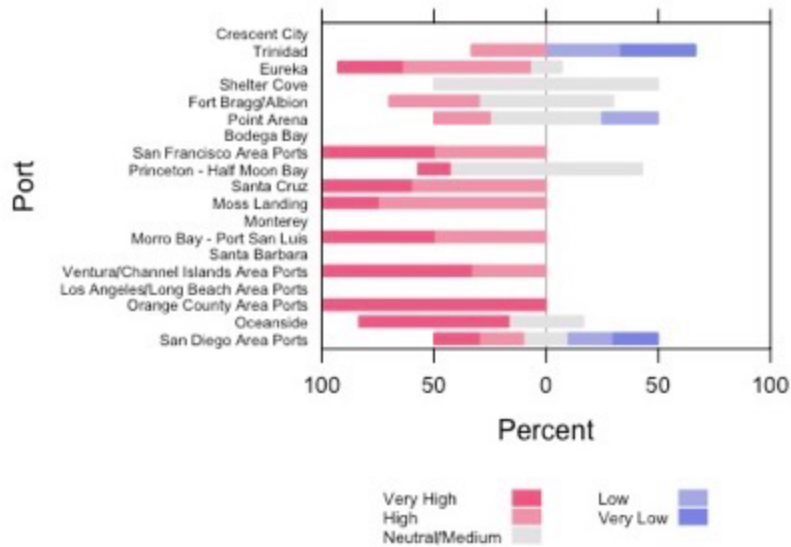
Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



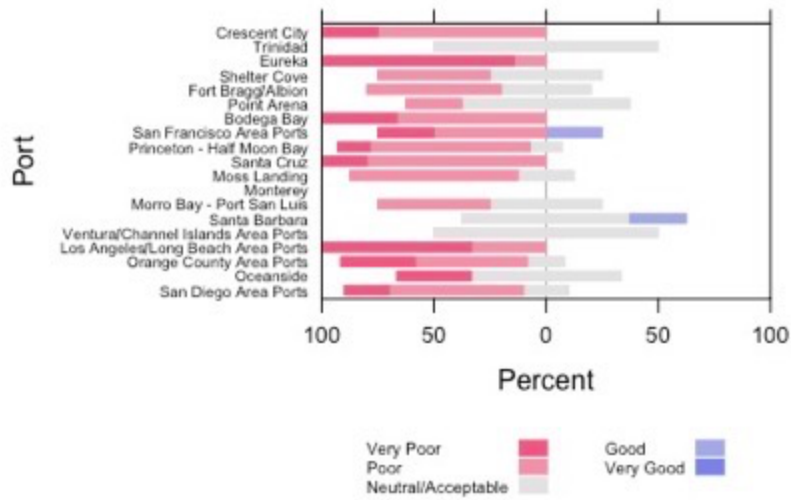
Very Poor
Poor
Neutral/Acceptable

Good
Very Good

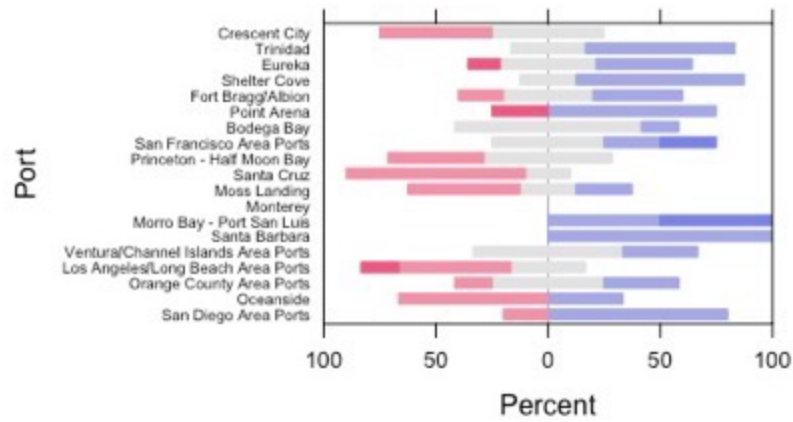
**How disruptive do you think COVID-19
has been to your port's fishing operations?**



**Overall, how would you rate your port
in terms of being able to recruit
new entrants to the industry
and being able to retain current participants?**



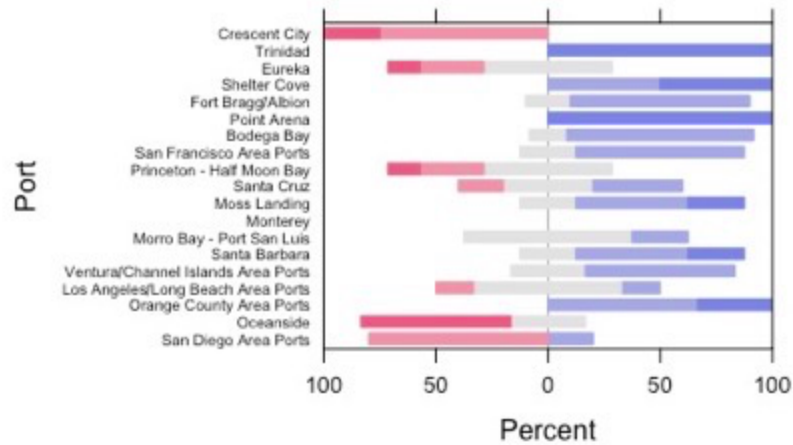
Overall, how satisfied do you think
fishermen from the port are
with their jobs in the fishing industry?



Very Dissatisfied
Dissatisfied
Neutral

Satisfied
Very Satisfied

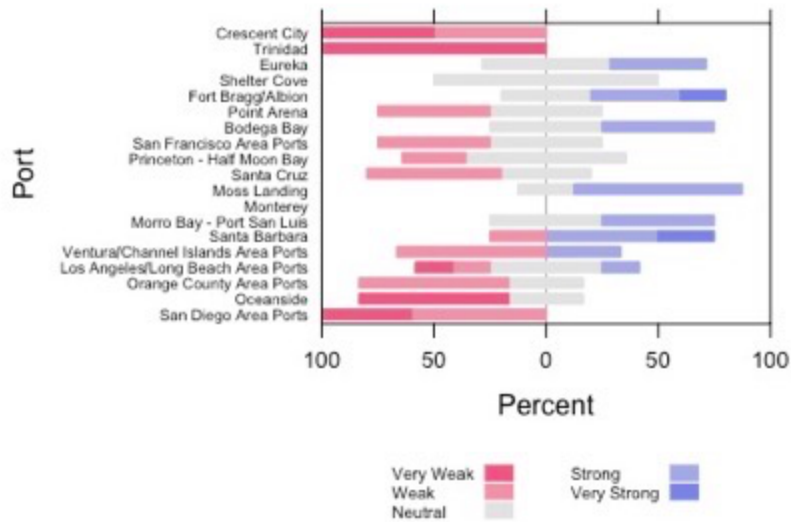
Overall, how would you rate the strength
of social relationships (or social capital) within your port?



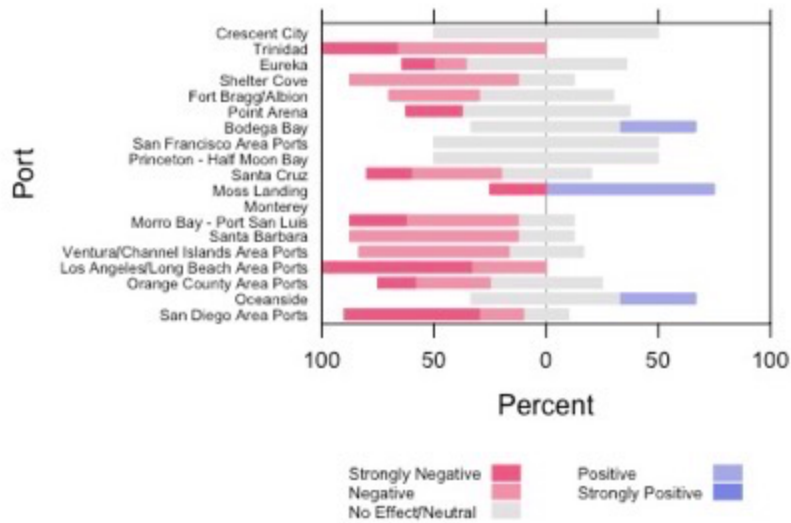
Very Weak
Weak
Neutral

Strong
Very Strong

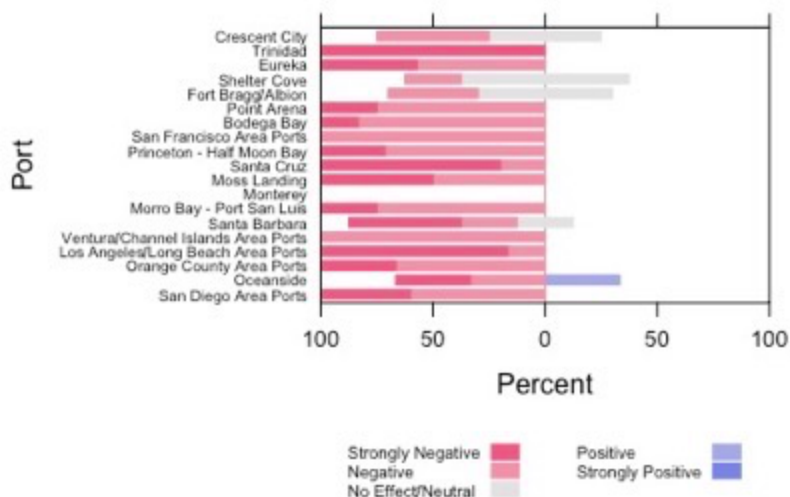
Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



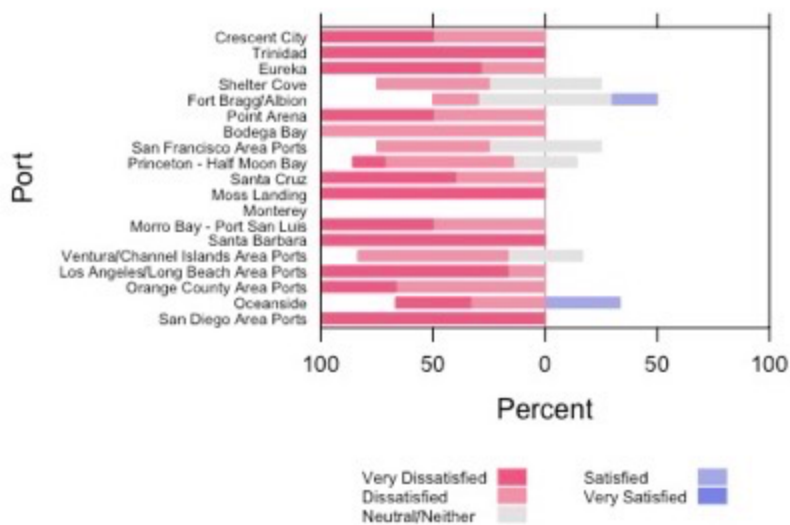
Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



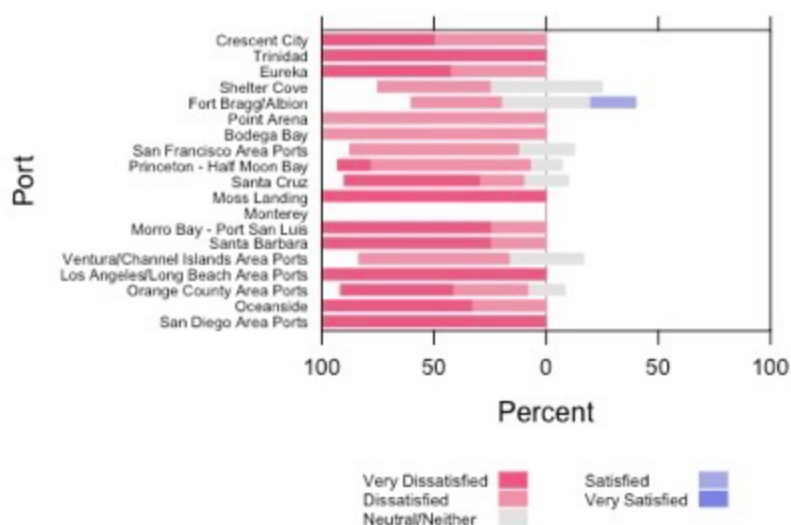
Overall, how would you rate
the effect that the MPA network
has had on the ability for fishermen
from your port to earn a living/gain income from fishing?



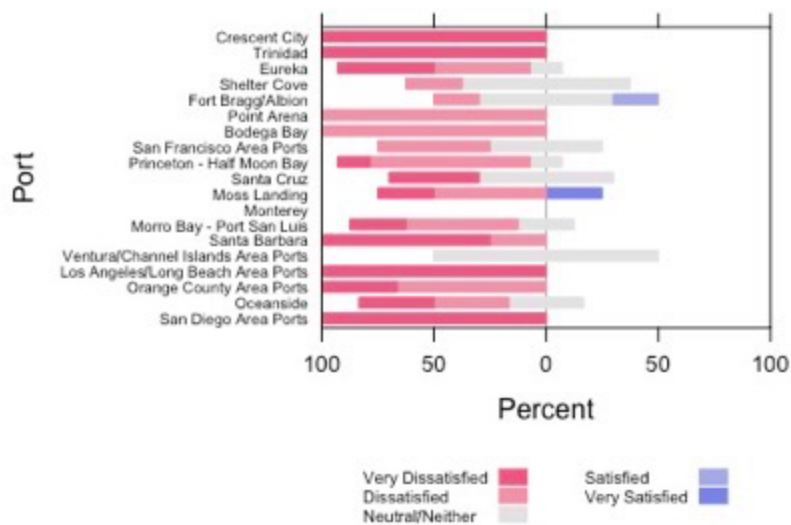
Overall, how satisfied do you think
fishermen from your port are with the management
of the MPA network?



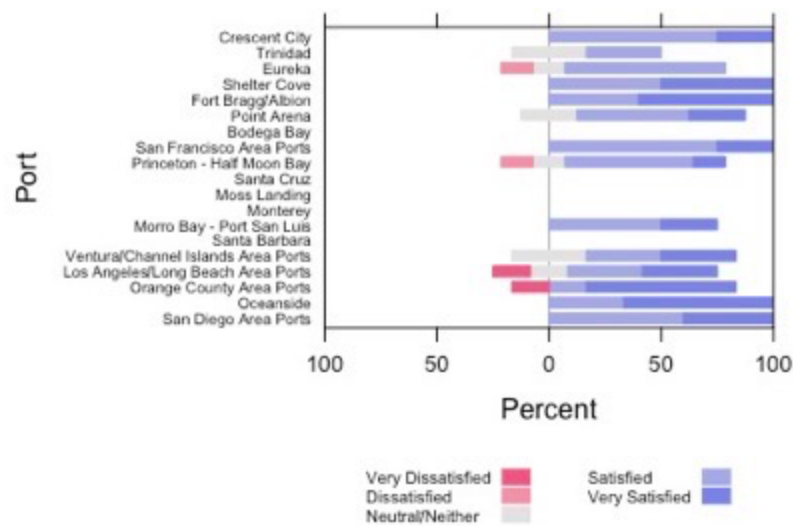
Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



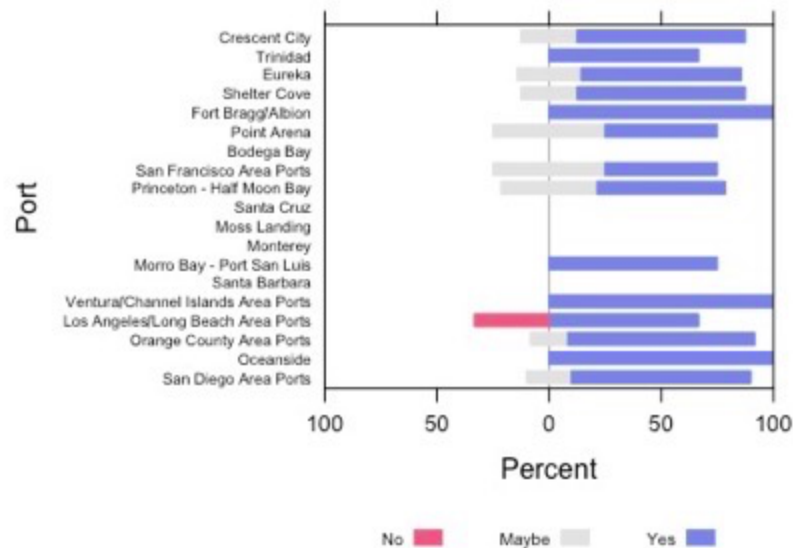
Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



**Overall, how satisfied were you
with your experience participating in this
virtual focus group?**

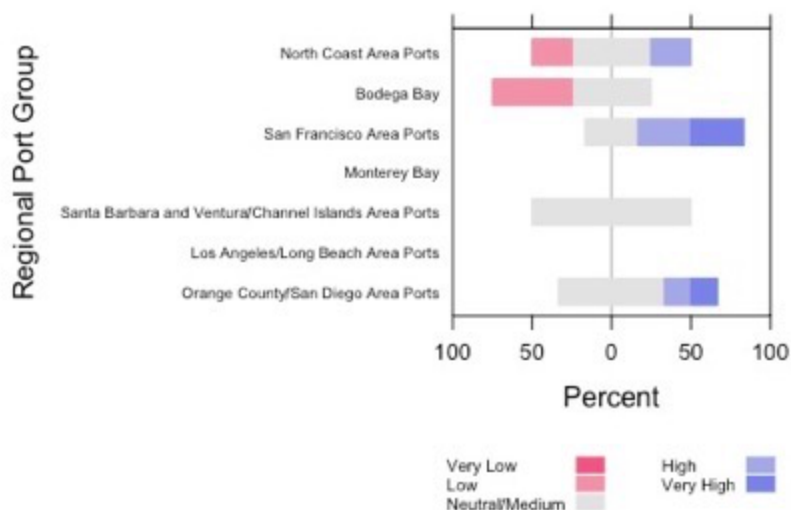


**Would you be open to participating
in a virtual focus group or meeting like this in the future?**

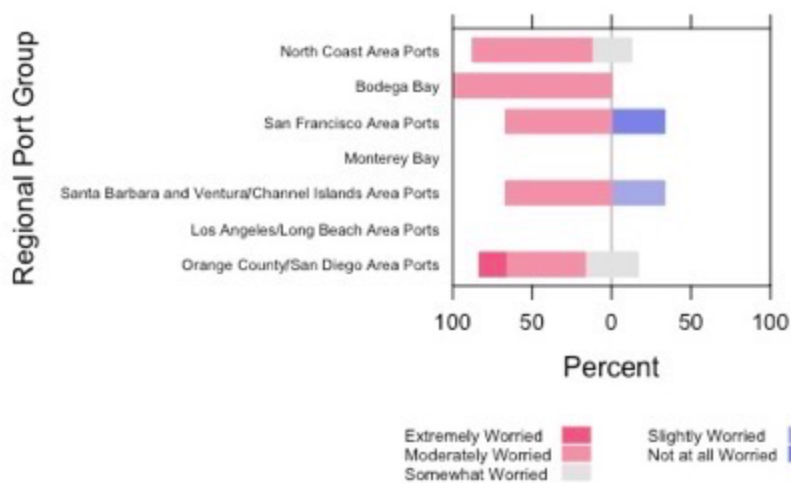


The following series of 15 figures shows the percent of participant responses to CPFV focus group well-being and MPA questions per response type by regional port group, ordered geographically from north to south. There are no data for Monterey Bay and Los Angeles/Long Beach Area Ports because we were unable to hold CPFV focus groups with individuals out of those regions.

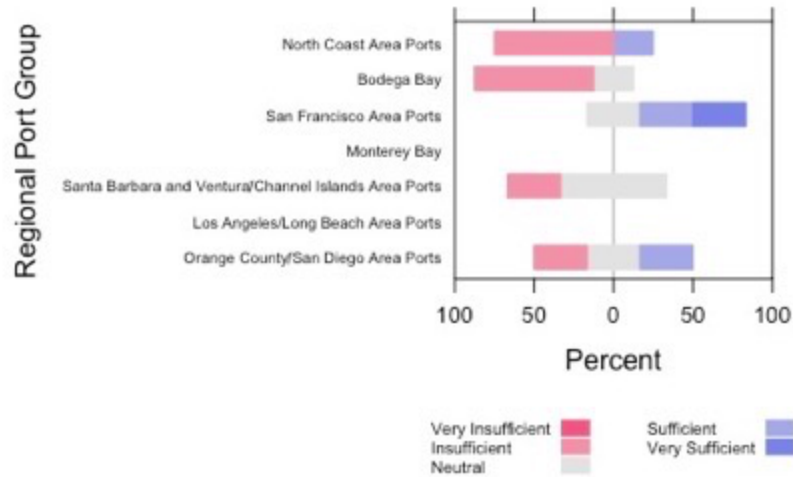
Overall, how would you rate the current health and sustainability of the marine resources on which CPFV own/op from this region rely?



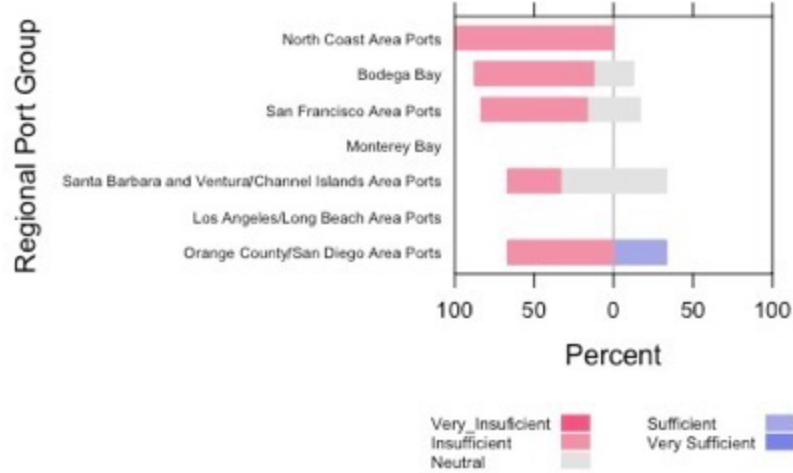
Overall, how worried are CPFV own/op from your region about the future long-term health and sustainability of the marine resource populations on which you rely?



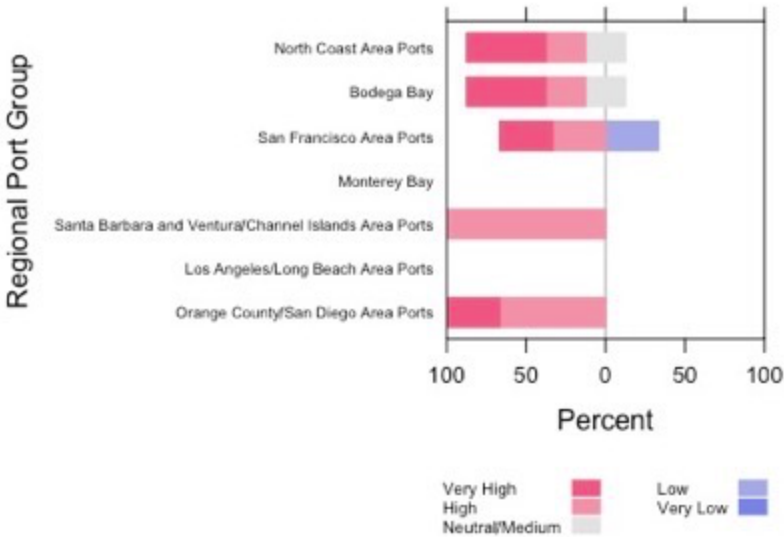
Overall, how would you rate the income that CPFV own/op (including crew) from your region earn from fishing to support livelihoods?



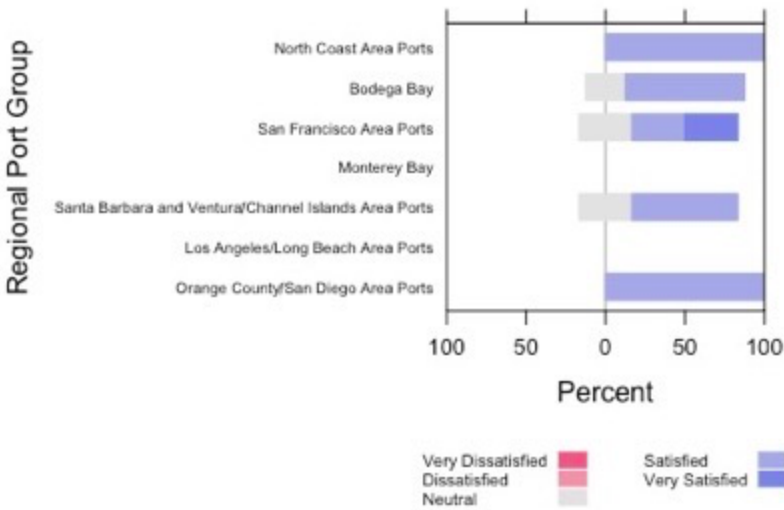
Overall, how would you rate the allocation of fish resources for CPFV fisheries in terms of supporting the CPFV industry?



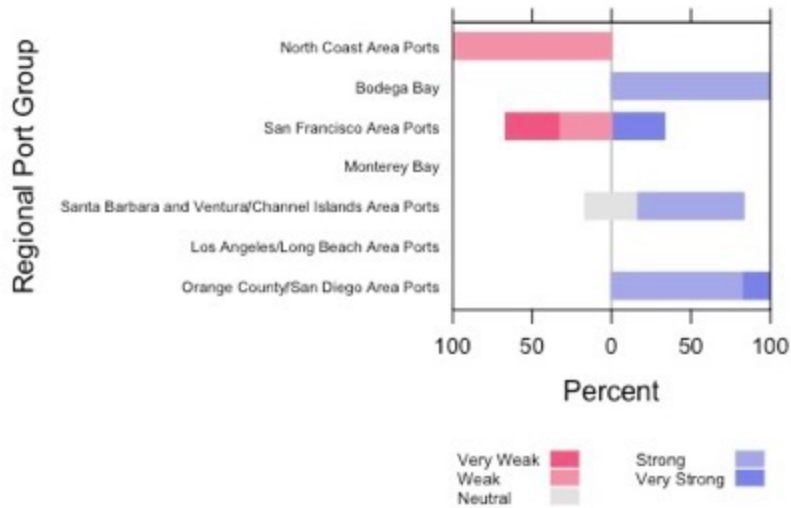
**How disruptive do you think COVID-19
has been to your region's fishing operations?**



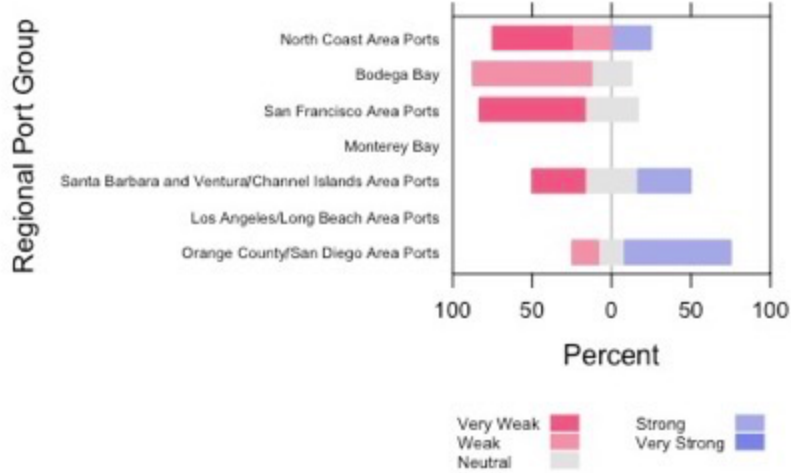
**Overall, how satisfied do you think
fishermen from the port are
with their jobs in the fishing industry?**



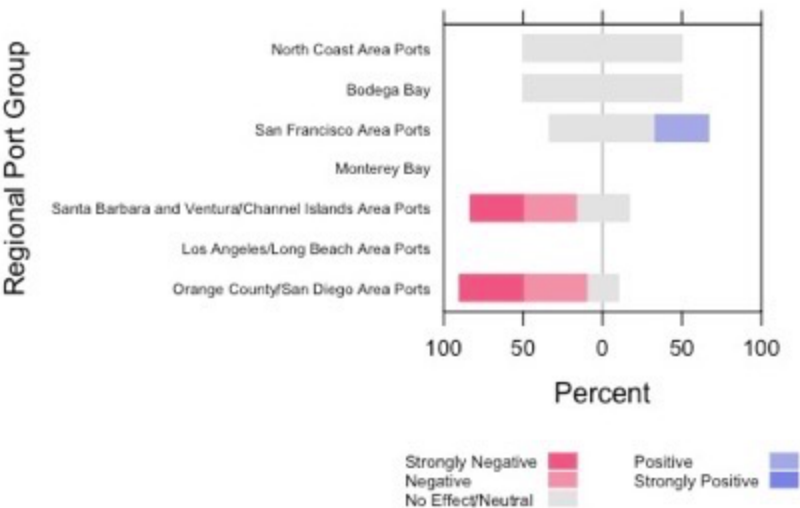
Overall, how would you rate the strength of social relationships (or social capital) among CPFV own/ in your region?



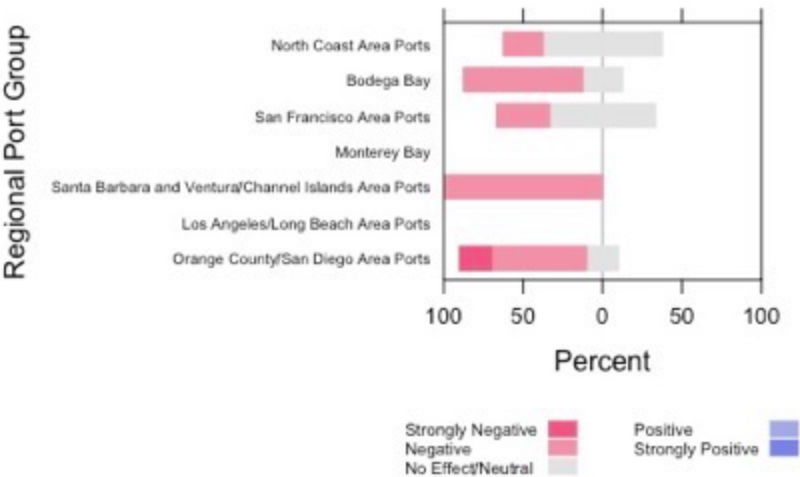
Overall, how would you rate the strength of relationships between CPFV own/op in your region and external groups who could help support industry needs?



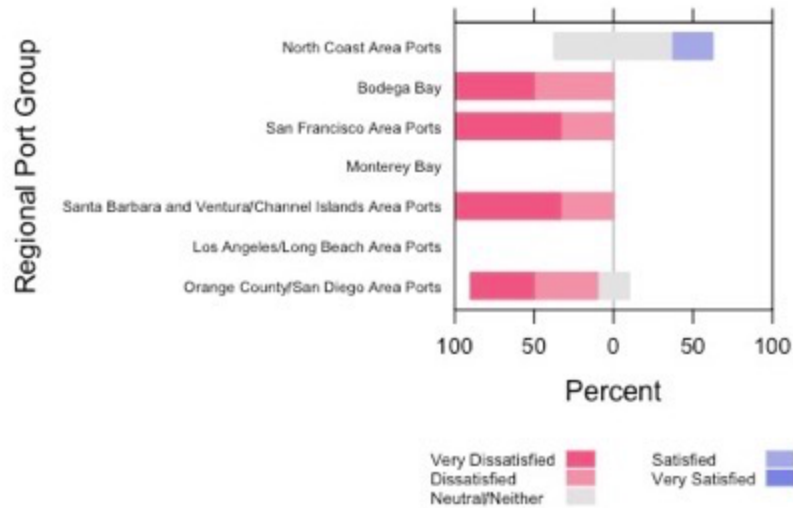
**Overall, how would you rate the effect
that the California MPA network
has had on marine resource health in your area?**



**Overall, how would you rate
the effect that the MPA network
has had on the ability for CPFV own/op
from your region to earn a living?**



**Overall, how satisfied do you think
CPFV own/op from your region
are with the management of the MPA network?**



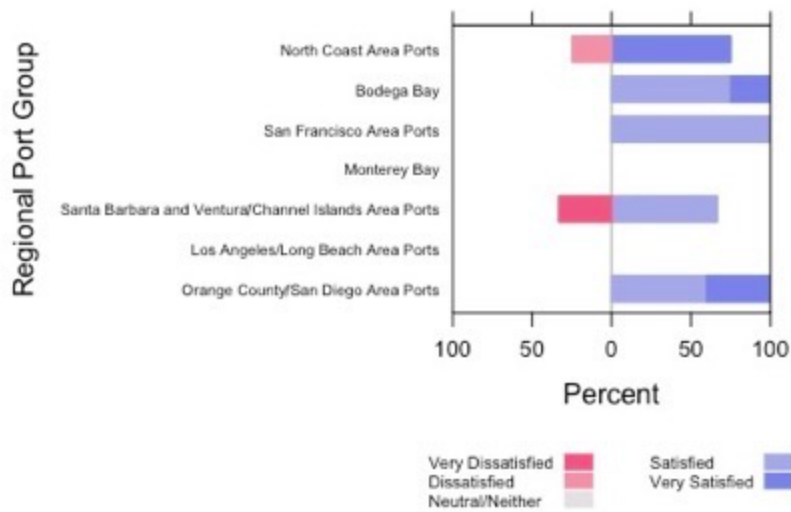
**Overall, how satisfied do you think
CPFV own/op from your region
are with the monitoring of the MPA network?**



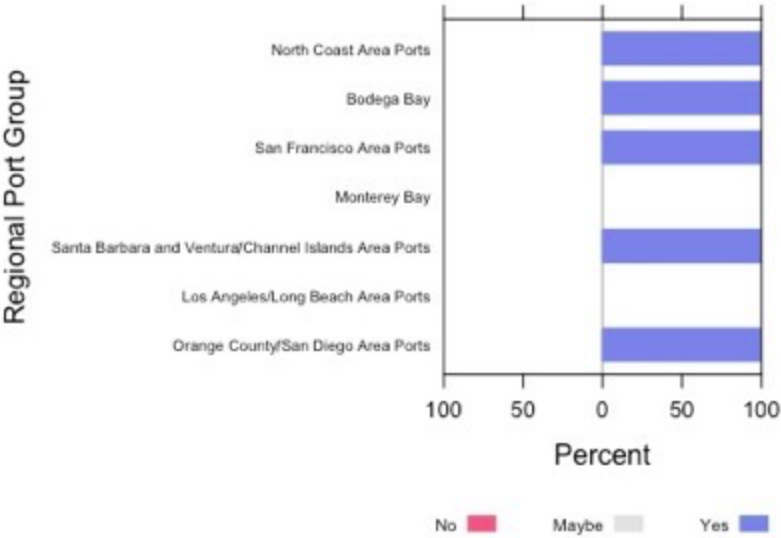
**Overall, how satisfied do you think
CPFV own/op from your region
are with the enforcement of MPAs?**



**Overall, how satisfied were you
with your experience participating in this
virtual focus group?**



**Would you be open to participating
in a virtual focus group or meeting like this in the future?**



Appendix B.2 MPA-specific effects table: Commercial fishing and CPFV focus groups

MPA	Port	Synthesis
Pyramid Point SMCA	<i>Crescent City</i>	Oregon fishermen frequently fished in this area prior to MPA implementation and participants shared this activity has continued within the Pyramid Point SMCA. <i>Participants from Crescent City port</i>
Reading Rock SMCA	<i>Crescent City</i>	For decades, this area was one of the healthiest, most productive fishing grounds. Prior to MPA implementation, fishermen relied on this area for Dungeness crab and drag fisheries. Adjacent RCAs compound the unavailable fishing grounds in the area. This MPA has negatively impacted fishermen's income due to having to travel farther to access fishing grounds. <i>Participants from Crescent City, Trinidad, Eureka, and the San Francisco ports</i>
	<i>Trinidad</i>	
	<i>Eureka</i>	
	<i>San Francisco Area</i>	
Reading Rock SMR	<i>Trinidad</i>	For decades, this area was one of the healthiest, most productive fishing grounds. Prior to MPA implementation, fishermen relied on this area for Dungeness crab, lingcod trolling and drag fisheries. Adjacent RCAs compound the unavailable fishing grounds in the area. This MPA has negatively impacted fishermen's income due to having to travel farther to access fishing grounds. <i>Participants from Trinidad, Eureka, and San Francisco Area ports</i>
	<i>Eureka</i>	
	<i>San Francisco Area</i>	
Samoa SMCA	<i>Trinidad</i>	Participants identified this MPA as an important and productive area for Dungeness crab fishing because the MPA doesn't restrict this type of activity. <i>Participants from Trinidad and Eureka ports</i>
	<i>Eureka</i>	
South Cape Mendocino SMR	<i>Trinidad</i>	This MPA has reduced access to some of the best fishing grounds, extended travel time, and limited potential income. Prior to MPA implementation, this area provided important fishing grounds for rock cod. <i>Participants from Trinidad and Eureka ports</i>
	<i>Eureka</i>	
Stewarts Point SMR	<i>Trinidad</i>	MPA implementation has restricted urchin and Dungeness crab fishing and has created a concentration of fishing along the MPA boundaries, increasing fishing pressure and the risk of whale entanglements. Fishermen must circumvent this MPA while following salmon and are no longer allowed to anchor in the area during bad weather. Participants questioned why salmon fishing is not allowed in this MPA, since they believed MPAs are intended to protect groundfish.
	<i>Bodega Bay</i>	
	<i>Princeton - Half Moon Bay</i>	
	<i>Santa Cruz</i>	

MPA	Port	Synthesis
	<i>Moss Landing</i>	<i>Participants from Trinidad, Bodega Bay, Princeton - Half Moon Bay, Santa Cruz and Moss Landing ports</i>
Mattole Canyon SMR	<i>Eureka</i>	<p>This MPA has reduced access to some of the best fishing grounds, extended travel time, and limited potential income. In recent years, there has been an increase in fishing gear along the boundaries of the MPA.</p> <p><i>Participants from Eureka and Shelter Cove ports</i></p>
	<i>Shelter Cove</i>	
Sea Lion Rock SMR	<i>Eureka</i>	<p>This MPA has reduced access to some of the best fishing grounds, extended travel time, and limited potential income.</p> <p><i>Participants from Eureka port</i></p>
Big Flat SMCA	<i>Eureka</i>	<p>This MPA has reduced access to some of the best fishing grounds for lingcod, halibut, rockfish and other fish, extended travel time, and limited potential income.</p> <p><i>Participants from Eureka and Shelter Cove ports</i></p>
	<i>Shelter Cove</i>	
Ten Mile SMR	<i>Eureka</i>	<p>Prior to implementation, this MPA was a productive salmon fishing area and fishermen still fish for salmon right along the MPA boundary. Salmon fishermen are no longer able to follow a school of salmon through this MPA though, affecting their fishing capabilities. This MPA has also reduced healthy fishing grounds for sea urchin.</p> <p><i>Participants from Eureka, Shelter Cove, and Fort Bragg Area ports</i></p>
	<i>Shelter Cove</i>	
	<i>Fort Bragg Area</i>	
Point St. George Offshore Reef SMCA	<i>Eureka</i>	<p>This MPA doesn't have much effect on fishermen since it is outside the thirty fathom boundary they are already restricted by.</p> <p><i>Participants from Eureka port</i></p>
Various MPAs near Bodega Bay	<i>Eureka</i>	<p>One participant noted that the MPA negatively affects fishermen in the area including reducing access to salmon fishing grounds.</p> <p><i>Participants from Eureka port</i></p>
Various MPAs in Southern California	<i>Eureka</i>	<p>Fishermen are frustrated that MPAs do not address water quality issues, using sewage run-off in the Santa Monica Bay as an example.</p> <p><i>Participants from Eureka port</i></p>

MPA	Port	Synthesis
Sea Lion Gulch SMR	Shelter Cove	<p>This MPA restricts access to a productive lingcod fishing area and one of the largest rock piles near Shelter Cove, reducing access to just one rock pile in the area. Additionally, there has been a build-up of fishing gear along the boundary of this MPA since designation.</p> <p><i>Participants from Shelter Cove port</i></p>
Russian Gulch SMCA	Fort Bragg Area	<p>This MPA allows for commercial fishing, and the current regulations prevent the area from being a site for kelp restoration.</p> <p><i>Participants from Fort Bragg Area ports</i></p>
Van Damme SMCA	Fort Bragg Area	<p>This MPA allows for commercial fishing, and the current regulations prevent the area from being a site for kelp restoration.</p> <p><i>Participants from Fort Bragg Area ports</i></p>
MacKerricher SMCA	Fort Bragg Area	<p>This MPA was considered an MPA before the MPA network was established, and the implementation process only updated the regulations and did not reduce access for fisheries.</p> <p><i>Participants from Fort Bragg Area ports</i></p>
Point Arena SMCA	Fort Bragg Area	<p>This MPA heavily negatively affects fishermen in this area, particularly sea urchin divers.</p> <p><i>Participants from Fort Bragg Area ports</i></p>
Point Arena SMR	Fort Bragg Area	<p>This MPA restricts fishing near the port where most fishermen prefer to fish, and traveling outside of the restricted area is not viable due to additional costs and safety concerns. Prior to implementation, the MPA was a productive fishing ground for rock cod, sea urchin, Dungeness crab, and salmon, leading to substantial income loss for fishermen in the area after designation. Participants stated that there were other areas where the MPA could have been placed that would not have led to such negative impacts on fishermen's livelihoods. This MPA was originally going to be a SMCA instead of a SMR, which would have allowed for salmon fishing and lessened the effect on fishermen livelihood, and the fishermen do not know why it ultimately became a SMR. Fishermen also expressed frustration that during the MPA design process, the proposed boundary line aligned with a road that would have been easily visible from boat or shore, but this changed during the process.</p> <p><i>Participants from Fort Bragg Area and Point Arena ports</i></p>
	Point Arena	

MPA	Port	Synthesis
Saunders Reef SMCA	Point Arena	<p>Prior to implementation, this MPA was a productive fishing ground, particularly for rockfish and Dungeness crab. It also provided protection against strong winds and bad weather that fishermen can no longer access. One participant noted that they didn't experience any effects from the MPA implementation.</p> <p><i>Participants from Point Arena, Bodega Bay, and Missing Landing ports</i></p>
	Bodega Bay	
	Moss Landing	
Del Mar Landing SMR	Point Arena	<p>This MPA does not allow rockfishing, but it is unlikely fishermen from the Point Arena area would travel that far south to fish.</p> <p><i>Participants from Point Arena port</i></p>
Bodega Head SMR	Bodega Bay	<p>This MPA forces fishermen to travel further to access productive fishing grounds, particularly for salmon and Dungeness crab. Participants questioned why salmon fishermen are allowed to transit these areas but are not able to fish in them since salmon trolling only interacts with the target species. The areas surrounding the MPA that are open to commercial fishing experience compaction and increased fishing pressure, leading to high levels of Dungeness crab gear in the MPA boundaries, which poses a risk to whale entanglements.</p> <p><i>Participants from Bodega Bay, Santa Cruz, and Moss Landing ports</i></p>
	Santa Cruz	
	Moss Landing	
Bodega Head SMCA	Bodega Bay	<p>This MPA forces fishermen to travel further to access productive fishing grounds, particularly for salmon and Dungeness crab. Participants questioned why salmon fishermen are allowed to transit these areas but are not able to fish in them since salmon trolling only interacts with the target species. The areas surrounding the MPA that are open to commercial fishing experience compaction and increased fishing pressure.</p> <p><i>Participants from Bodega Bay and Santa Cruz ports</i></p>
	Santa Cruz	
Point Reyes SMR	Bodega Bay	<p>Prior to implementation, this MPA was a productive fishing ground for Dungeness crab, halibut, and salmon. The restrictions have led to substantial financial loss for fishermen and forced them to fish along the MPA boundaries, creating high levels of Dungeness crab gear and posing a risk for whale entanglements. Salmon fishermen must circumvent this MPA when they are following salmon along the coast. Some participants questioned the reasoning behind the MPA designation and why</p>
	San Francisco Area	
	Princeton - Half Moon Bay	

MPA	Port	Synthesis
	<i>Moss Landing</i>	<p>salmon fishing is not allowed since MPAs are intended to protect groundfish, suggesting the MPA was chosen without any particular conservation goals in mind. Another participant believed it was designated as a MPA to produce habitat replication and connectivity with other MPAs. Some participants noted that they still see fishing activity within the MPA.</p> <p><i>Participants from Bodega Bay, San Francisco Area, Princeton - Half Moon Bay, and Moss Landing ports</i></p>
Point Reyes SMCA	<i>Bodega Bay</i>	<p>Prior to implementation, this MPA was a productive fishing ground for Dungeness crab and halibut. The restrictions have led to substantial financial loss for fishermen and forced them to fish along the MPA boundaries, creating high levels of Dungeness crab gear and posing a risk for whale entanglements. This MPA allows for salmon fishing. One participant believed the area was designated as a MPA to produce habitat replication and connectivity with other MPAs.</p> <p><i>Participants from Bodega Bay and San Francisco Area ports</i></p>
	<i>San Francisco Area</i>	
North Farallon Islands SMR	<i>Bodega Bay</i>	<p>Prior to implementation, this MPA was a productive rockfish fishing ground. Since MPA designation several fisheries have lost substantial income, particularly salmon and Dungeness crab fisheries, and the surrounding areas have experienced increased fishing pressure, especially during Dungeness crab season. Current regulations force salmon fishermen to circumvent this MPA when they are following salmon along the coast. One participant commented this MPA should have been designated as an SMCA to allow for salmon fishing, and that the overall planning for these MPAs was not done collaboratively. Another participant questioned why salmon fishing is not allowed since they believed MPAs are intended to protect groundfish.</p> <p><i>Participants from Bodega Bay, San Francisco Area, Princeton - Half Moon Bay, and Moss Landing ports</i></p>
	<i>San Francisco Area</i>	
	<i>Princeton - Half Moon Bay</i>	
	<i>Moss Landing</i>	
Southeast Farallon Island SMCA	<i>San Francisco Area</i>	<p>Prior to implementation, this MPA was a productive fishing ground for rockfish. Restrictions force fishermen to circumvent the MPA when following salmon along the coast and travel as far as out of state to fish Dungeness crab. The MPA boundaries and surrounding areas experience increased fishing pressure. One participant commented that the overall planning for these MPAs was not done</p>
	<i>Princeton - Half Moon Bay</i>	

MPA	Port	Synthesis
	Moss Landing	<p>commented that the overall planning for these MPAs was not done collaboratively. Another participant questioned why salmon fishing is not allowed since they believed MPAs are intended to protect groundfish.</p> <p><i>Participants from San Francisco Area, Princeton - Half Moon Bay, and Moss Landing ports</i></p>
Southeast Farallon Island Special Closure	San Francisco Area	<p>Prior to implementation, this MPA was a productive rockfish fishing ground. Restrictions have resulted in increased fishing pressure along the boundaries and in surrounding areas. Salmon fishermen must circumvent this MPA when they are following salmon along the coast and Dungeness crab fishermen have traveled out of state waters for fishing access. One participant commented that the overall planning for these MPAs was not done collaboratively. Another participant questioned why salmon fishing is not allowed since they believed MPAs are intended to protect groundfish.</p> <p><i>Participants from San Francisco Area, Princeton - Half Moon Bay, and Moss Landing ports</i></p>
	Princeton - Half Moon Bay	
	Moss Landing	
Southeast Farallon Island SMR	Princeton - Half Moon Bay	<p>MPA regulations force salmon fishermen to catch what they can along the MPA boundaries and circumvent the area to follow salmon along the coast. Fishermen have had to fish for Dungeness crab out of state due to MPA restrictions. One participant questioned why salmon fishing is allowed since they believed MPAs are intended to protect groundfish.</p> <p><i>Participants from Princeton - Half Moon Bay and Moss Landing ports</i></p>
	Moss Landing	
Año Nuevo SMR	Bodega Bay	<p>Prior to MPA implementation, this was a preferred and important fishing ground for salmon, Dungeness crab, halibut, rockfish, and lingcod. Salmon fishermen are now forced to catch what they can along the MPA boundaries and must circumvent the area to follow salmon along the coast. One participant shared it was unnecessary to close these fishing grounds since bycatch was negligible due to the shallow</p>
	Princeton - Half Moon Bay	
	Santa Cruz	

MPA	Port	Synthesis
	<i>Moss Landing</i>	<p>habitat, which allowed for non-targeted species to be released without harm. One participant expressed frustration because this MPA is close to Santa Cruz harbor and now local small-boat fishermen must travel an unsafe distance into San Mateo County to fish north of Santa Cruz. Another participant questioned why salmon fishing is not allowed since they believed MPAs are intended to protect groundfish. It was reported that groundfish stocks near this MPA are recovering, but the participant questioned the accuracy of these estimates.</p> <p><i>Participants from Bodega Bay, Princeton - Half Moon Bay, Santa Cruz, and Moss Landing ports</i></p>
Greyhound Rock SMCA	<i>Santa Cruz</i>	<p>One participant expressed frustration because this MPA is close to Santa Cruz harbor and now local small-boat fishermen must travel an unsafe distance into San Mateo County to fish north of Santa Cruz.</p> <p><i>Participants from Santa Cruz port</i></p>
Soquel Canyon SMCA	<i>Bodega Bay</i>	<p>Prior to MPA implementation this area was a very productive area for spot prawn and groundfish. Restrictions have led to fishermen leaving the industry due to loss of income. Participants pointed out that prawn fishing is allowed in the MPAs near Carmel Canyon because fishermen requested this exemption during the implementation process. They also expressed that this MPA should be opened to the eel, spot prawn, and Dungeness crab fisheries to allow fishermen to rotate fishing grounds. One participant mentioned that an exemption for Dungeness crab fishing would not harm the rockfish populations the MPAs are designed to protect. This MPA has had a beneficial impact on salmon fishermen by decreasing the conflict between salmon, Dungeness crab, and hagfish gear. It was mentioned that rockfish sometimes climb onto fishing gear and, due to restrictions, must be thrown back even if they're likely to die, underutilizing bycatch in these circumstances. This MPA also creates risks for whale entanglements due to compaction of fixed gear along the MPA boundaries and its placement along the canyon ledge, where upwelling conditions create rich feeding grounds for marine life.</p> <p><i>Participants from Bodega Bay, Santa Cruz, and Moss Landing ports</i></p>
	<i>Santa Cruz</i>	
	<i>Moss Landing</i>	
Montara SMR	<i>San Francisco Area</i>	<p>MPA designation forces salmon fishermen to catch what they can along the MPA boundaries and circumvent the area to follow salmon along the coast. One participant questioned why salmon fishing is not allowed since they believed MPAs are intended to protect groundfish. Another participant shared how they have seen large</p>

MPA	Port	Synthesis
	<i>Princeton - Half Moon Bay</i>	<p>intended to protect groundfish. Another participant shared now they have seen large crabs moving out of this MPA.</p> <p><i>Participants from San Francisco Area and Princeton - Half Moon Bay ports</i></p>
Duxbury Reef SMCA	<i>San Francisco Area</i>	<p>One participant shared that because they can still rockfish here, this MPA did not have adverse effects.</p> <p><i>Participants from San Francisco Area port</i></p>
Drakes Bay MPAs	<i>Princeton - Half Moon Bay</i>	<p>MPA designation forces salmon fishermen to catch what they can along the MPA boundaries and circumvent the area to follow salmon along the coast. One participant questioned why salmon fishing is not allowed since they believed MPAs are intended to protect groundfish.</p> <p><i>Participants from Princeton - Half Moon Bay port</i></p>
Salt Point SMCA	<i>Moss Landing</i>	<p>This MPA restricts Dungeness crab fishing and one participant believed this MPA was created in response to a complaint from a resident nearby who was bothered by Dungeness crab fishermen working in the area.</p> <p><i>Participants from Moss Landing port</i></p>
Portuguese Ledge SMCA	<i>Santa Cruz</i>	<p>Prior to MPA implementation, this area was productive for spot prawn and groundfish, and current regulations affect fishermen in the area. Opening up this MPA would help sustain the financial viability of and increase safety for Santa Cruz's small boat fishing operations due to its proximity to port. Participants pointed out that prawn fishing is allowed in the MPAs near Carmel Canyon because fishermen requested this exemption during the MPA implementation process. One participant suggested an exemption for Dungeness crab fishing because it wouldn't harm the rockfish populations the MPA is designed to protect. Another participant expressed support for this MPA, and agreed with others that there would be a benefit to rotating this MPA with others located to the south.</p> <p><i>Participants from Santa Cruz, Moss Landing, and Morro Bay - Avila / Port San Luis ports</i></p>
	<i>Moss Landing</i>	
	<i>Morro Bay - Avila / Port San Luis</i>	

MPA	Port	Synthesis
Carmel Bay SMCA	Santa Cruz	One participant shared this MPA was an important habitat to protect and suggested revisiting the boundaries in the area to help reduce overfishing. <i>Participants from Santa Cruz port</i>
Asilomar SMR	Moss Landing	Participants explained that this area provided safe fishing grounds for nearshore rockfish fishermen during poor weather conditions, and its presence increases fishing pressure in smaller areas near Pebble Beach. <i>Participants from Moss Landing port</i>
Point Lobos SMR	Santa Cruz	Prior to MPA implementation, this MPA was a productive area for rock cod fishing. Current restrictions concentrate fishing along the MPA boundaries and don't provide protection for important fisheries. One participant expressed support for this MPA to protect juvenile fish in Carmel Bay and reduce commercial and sport fishing pressure. <i>Participants from Santa Cruz and Moss Landing ports</i>
	Moss Landing	
Point Lobos SMCA	Santa Cruz	Prior to MPA implementation, this MPA was a productive area for rock cod fishing. Current regulations concentrate fishing along the MPA boundaries and don't provide protection for important fisheries. One participant expressed support for this MPA to protect juvenile fish in Carmel Bay and reduce commercial and sport fishing pressure. <i>Participants from Santa Cruz and Moss Landing ports</i>
	Moss Landing	
Point Sur SMR	Santa Cruz	MPA designation has created fishing pressure in surrounding areas and a depletion of rockfish along the boundaries, which, participants believed, could be relieved by opening up fishing within the MPA since it is among the best rockfish breeding grounds along the California coast. Prior to MPA implementation the area was a productive salmon fishing ground. One participant expressed frustration with the large size of the MPA and questioned whether the entire area needed to be restricted to achieve management goals, while another participant expressed interest in learning more about the research being conducted in the MPA. <i>Participants from Santa Cruz, Moss Landing, and Morro Bay - Avila / Port San Luis ports</i>
	Moss Landing	
	Morro Bay - Avila / Port San Luis	

MPA	Port	Synthesis
Point Sur SMCA	Santa Cruz	MPA designation has created fishing pressure in surrounding areas and a depletion of rockfish along the boundaries, which, participants believed, could be relieved by opening up fishing within the MPA since it is among the best rockfish breeding grounds along the California coast. Prior to MPA implementation the area was a productive salmon fishing ground. One participant expressed frustration with the large size of the MPA and questioned whether the entire area needed to be restricted to achieve management goals, while another participant expressed interest in learning more about the research being conducted in the MPA.
	Moss Landing	
	Morro Bay - Avila / Port San Luis	Participants from Santa Cruz, Moss Landing, and Morro Bay - Avila / Port San Luis ports
Piedras Blancas SMR	Moss Landing	Prior to MPA implementation, this area was a productive salmon and Dungeness crab fishing ground where fishermen would be able to catch their quota during a day trip.
	Morro Bay - Avila / Port San Luis	Participants from Moss Landing and Morro Bay - Avila / Port San Luis ports
Piedras Blancas SMCA	Moss Landing	Prior to MPA implementation, this area was a productive salmon and Dungeness crab fishing ground where fishermen would be able to catch their quota during a day trip.
	Morro Bay - Avila / Port San Luis	Participants from Moss Landing and Morro Bay - Avila / Port San Luis ports
Big Creek SMCA	Santa Cruz	Prior to MPA implementation, this area was a productive salmon and Dungeness crab fishing ground and was successful in replenishing fish populations in deep water habitats. The boundaries along the MPA experience compaction, and one participant recommended opening up the MPA to help fishermen fill their available quotas without compromising safety when traveling further distances. Participants from Santa Cruz and Moss Landing ports
	Moss Landing	
Big Creek SMR	Santa Cruz	Prior to MPA implementation, this area was a productive salmon, Dungeness crab, spot prawn, and black cod fishing ground, and fish populations were able to replenish in deep water habitats. The boundaries along the MPA experience compaction. One participant recommended opening up the MPA to help fishermen fill their available
	Moss Landing	

MPA	Port	Synthesis
	Morro Bay - Avila / Port San Luis	<p>participant recommended opening up the MPA to help fishermen fill their available quotas without compromising safety when traveling further distances, while another participant expressed additional safety concerns about the inability to anchor in the area.</p> <p><i>Participants from Santa Cruz, Moss Landing, and Morro Bay - Avila / Port San Luis ports</i></p>
Point Buchon SMR	Moss Landing Morro Bay - Avila / Port San Luis	<p>This MPA provides valuable, nutrient habitat for salmon, Dungeness crab, and whales, but there is an increased risk of marine mammal entanglements because fishing is concentrated along the boundaries. MPA designation has impacted local and commercial fleets by affecting their ability to fish safely and efficiently.</p> <p><i>Participants from Moss Landing and Morro Bay - Avila / Port San Luis ports</i></p>
Point Buchon SMCA	Moss Landing Morro Bay - Avila / Port San Luis	<p>This MPA provides valuable, nutrient habitat for salmon, Dungeness crab, and whales, but there is an increased risk of marine mammal entanglements because fishing is concentrated along the boundaries. MPA designation has impacted local and commercial fleets by affecting their ability to fish safely and efficiently.</p> <p><i>Participants from Moss Landing and Morro Bay - Avila / Port San Luis ports</i></p>
Campus Point SMCA (No-Take)	Santa Barbara Ventura/Channel Islands Ports	<p>Prior to MPA implementation, this area was a productive and important fishing ground for sea urchin and lobsters. Fishermen can access sandy bottoms, but this habitat does not house target fisheries. One participant expressed frustration about the large size of this MPA and that the entire Santa Barbara mainland is restricted from commercial fishing, which demonstrates the variability of MPA impacts on different ports and regions.</p> <p><i>Participants from Santa Barbara and Ventura/Channel Islands ports</i></p>
Naples SMCA	Santa Barbara	<p>Prior to MPA implementation, this area was a productive and important fishing ground for sea urchin and lobsters. Fishermen can access sandy bottoms, but this habitat does not house target fisheries. One participant expressed frustration about the large size of this MPA and that the entire Santa Barbara mainland is restricted from</p>

MPA	Port	Synthesis
	<i>Ventura/Channel Islands Ports</i>	<p>size of this MPA and that the entire Santa Barbara mainland is restricted from commercial fishing, which demonstrates the variability of MPA impacts on different ports and regions.</p> <p><i>Participants from Santa Barbara and Ventura/Channel Islands ports</i></p>
Gull Island SMR	<i>Santa Barbara</i>	<p>Prior to MPA implementation, this area was great for day trips, provided weather protection on the way to Santa Rosa island, and was a productive and important fishing ground for sea urchin, lobsters, and kelp. Older fishermen knew the weather and tides in this area before it was an MPA and had to relearn new fishing grounds elsewhere after designation.</p> <p><i>Participants from Santa Barbara and Ventura/Channel Islands ports</i></p>
	<i>Ventura/Channel Islands Ports</i>	
Gull Island FMR	<i>Santa Barbara</i>	<p>This MPA has had high negative effects on fishermen in the area, particularly on urchin fishermen.</p> <p><i>Participants from Santa Barbara port</i></p>
South Point SMR	<i>Santa Barbara</i>	<p>This MPA has had high negative effects on fishermen in the area, particularly on urchin fishermen.</p> <p><i>Participants from Santa Barbara port</i></p>
South Point FMR	<i>Santa Barbara</i>	<p>This MPA has had high negative effects on fishermen in the area, particularly on urchin fishermen.</p> <p><i>Participants from Santa Barbara port</i></p>
Harris Point SMR	<i>Santa Barbara</i>	<p>Prior to MPA implementation, this area was an important and safe fishing ground, and now fishermen are displaced into more dangerous areas with high wind and waves. MPA designation restricted about 50 percent of the area around San Miguel island and fishermen would like to see this reduced.</p> <p><i>Participants from Santa Barbara port</i></p>
Harris Point FMR	<i>Santa Barbara</i>	<p>Prior to MPA implementation, this area was an important and safe fishing ground, and now fishermen are displaced into more dangerous areas with high wind and waves. This MPA restricts about 50 percent of the area around San Miguel island and fishermen would like to see this reduced.</p> <p><i>Participants from Santa Barbara port</i></p>

MPA	Port	Synthesis
Judith Rock SMR	Santa Barbara	<p>Prior to MPA implementation, this was a productive fishing ground for rockfish and rock crab, and provided a safe and protected place to fish away from high wind and waves. This MPA restricts about 50 percent of the area around San Miguel island and fishermen would like to see this reduced.</p> <p><i>Participants from Santa Barbara port</i></p>
Richardson Rock SMR	Santa Barbara	<p>Prior to MPA implementation, this area was an important and safe fishing ground, and now fishermen are displaced into more dangerous areas with high wind and waves. This MPA restricts about 50 percent of the area around San Miguel island and fishermen would like to see this reduced.</p> <p><i>Participants from Santa Barbara port</i></p>
Richardson Rock FMR	Santa Barbara	<p>Prior to MPA implementation, this area was an important and safe fishing ground, and now fishermen are displaced into more dangerous areas with high wind and waves. This MPA restricts about 50 percent of the area around San Miguel island and fishermen would like to see this reduced.</p> <p><i>Participants from Santa Barbara port</i></p>
Point Conception SMR	Santa Barbara	<p>Prior to MPA implementation, this was a productive fishing ground for lobster.</p> <p><i>Participants from Santa Barbara port</i></p>
Vandenberg SMR	Santa Barbara	<p>Prior to MPA implementation, this was a productive fishing ground for Dungeness crab and was regularly fished by nearshore fishermen out of the Port of San Luis. Fishermen do not understand why salmon trolling is not allowed in this MPA while it is allowed in other MPAs in the state, given that salmon are a pelagic species and do not stay within MPA boundaries.</p> <p><i>Participants from Santa Barbara and Morro Bay - Avila / Port San Luis ports</i></p>
	Morro Bay - Avila / Port San Luis	
Point Dume SMCA	Ventura/Channel Islands Ports	<p>Prior to MPA implementation, this was a productive fishing ground for rock crab, lobster, and kelp, and protected fishermen from bad weather conditions. Fishermen are now forced to travel far to access productive fishing grounds, which puts them at a higher risk for unsafe conditions and adds to fuel costs. Participants also reported that there is greater fishing compaction in the areas surrounding the MPA.</p> <p><i>Participants from Ventura/Channel Island ports</i></p>

MPA	Port	Synthesis
Point Dume SMR	Ventura/Channel Islands Ports	<p>Prior to MPA implementation, this was a productive fishing ground for rock crab, lobster, and kelp, and protected fishermen from bad weather conditions. Fishermen are now forced to travel far to access productive fishing grounds, which puts them at a higher risk for unsafe conditions and adds to fuel costs. Participants also reported that there is greater fishing compaction in the areas surrounding the MPA.</p> <p><i>Participants from Ventura/Channel Island ports</i></p>
Anacapa SMCA	Ventura/Channel Islands Ports	<p>This MPA covers almost the entire frontside of Anacapa Island, which offers protection from bad weather, leading to safety concerns and increased fishing pressure and a concentration of gear on the backside of the island. One fisherman suggested that the closures around Anacapa Island be evenly distributed.</p> <p><i>Participants from Ventura/Channel Island ports</i></p>
Anacapa SMR	Ventura/Channel Islands Ports	<p>This MPA covers almost the entire frontside of Anacapa Island, which offers protection from bad weather, leading to safety concerns and increased fishing pressure and a concentration of gear on the backside of the island. One fisherman suggested that the closures around Anacapa Island be evenly distributed.</p> <p><i>Participants from Ventura/Channel Island ports</i></p>
Scorpion SMR	Ventura/Channel Islands Ports	<p>Prior to MPA implementation, this was a productive fishing ground for kelp, sea urchin, and sea cucumber. The MPA covers a large area of the front east side of Santa Cruz Island and mostly consists of sandy boom.</p> <p><i>Participants from Ventura/Channel Island ports</i></p>
Footprint SMR	Ventura/Channel Islands Ports	<p>This MPA helps with rockfish abundance in deeper waters but does not negatively affect the sea urchin or lobster fisheries.</p> <p><i>Participants from Ventura/Channel Island ports</i></p>
Arrow Point to Lion Head Point SMCA	Ventura/Channel Islands Ports	<p>One participant questioned why this MPA restricts commercial fishing, but allows for some sport fishing.</p> <p><i>Participants from Ventura/Channel Island ports</i></p>
Blue Cavern Onshore SMCA	Ventura/Channel Islands Ports	<p>One participant questioned why this MPA restricts commercial fishing, but allows for some sport fishing.</p> <p><i>Participants from Ventura/Channel Island ports</i></p>

MPA	Port	Synthesis
Blue Cavern Onshore SMCA (No-Take)	Ventura/Channel Islands Ports	One participant questioned why this MPA restricts commercial fishing, but allows for some sport fishing. <i>Participants from Ventura/Channel Island ports</i>
Long Point SMR	Ventura/Channel Islands Ports	One participant questioned why this MPA restricts commercial fishing, but allows for some sport fishing. <i>Participants from Ventura/Channel Island ports</i>
Casino Point SMCA (No-Take)	Ventura/Channel Islands Ports	One participant questioned why this MPA restricts commercial fishing, but allows for some sport fishing. <i>Participants from Ventura/Channel Island ports</i>
Lover's Cove (SMCA)	Ventura/Channel Islands Ports	One participant questioned why this MPA restricts commercial fishing, but allows for some sport fishing. <i>Participants from Ventura/Channel Island ports</i>
Laguna Beach SMR	Orange County Area Ports	MPA designation closed off several square miles of the Laguna Beach coast and has led to income loss for fishermen in the area. Participants suggested that that this MPA could have been smaller with better spacing in relation to surrounding MPAs, which could have allowed for fishing in some of the area. <i>Participants from Orange County Area ports</i>
Laguna Beach SMCA (No-Take)	Orange County Area Ports	Prior to MPA designation, this area was one of the best fishing grounds in Orange County. The MPA includes an artificial reef that was built to cover a pipeline that needs to be serviced, which disturbs the habitat. <i>Participants from Orange County Area ports</i>
Tijuana River Mouth SMCA	San Diego Area Ports	Fishermen have experienced a decrease in overall lobster landings due to MPA restrictions and lack of lobster spillover into surrounding areas. One participant expressed confusion about the rationale for designating this MPA, given that it sustained little fishing activity prior to MPA implementation and continues to experience poor water quality and pollution. <i>Participants from San Diego Area ports</i>
Point Cabrillo SMR	San Diego Area Ports	The areas surrounding this MPA experience increased fishing pressure due to fishermen attempting to capitalize on lobster spillover. <i>Participants from San Diego Area ports</i>

MPA	Port	Synthesis
South La Jolla SMCA	Oceanside	<p>MPA designation has led to a loss of productive fishing grounds and forces fishermen to travel further to fish, leading to overcrowding and competition outside of the MPAs, as well as lower efficiency and increased carbon emissions. One participant estimated the majority of fishing grounds in the area were lost to MPAs and it is not viable to fish in northern San Diego County anymore.</p> <p><i>Participants from Oceanside and San Diego Area ports</i></p>
	San Diego Area Ports	
South La Jolla SMR	Oceanside	<p>MPA designation has led to a loss of productive fishing grounds and forces fishermen to travel further to fish, leading to overcrowding and competition outside of the MPAs, as well as lower trip efficiency and increased carbon emissions. One participant estimated the majority of fishing grounds in the area were lost to MPAs and it is not viable to fish in northern San Diego County anymore.</p> <p><i>Participants from Oceanside and San Diego Area ports</i></p>
	San Diego Area Ports	
Swami's SMCA	Oceanside	<p>Prior to implementation, this MPA was a productive fishing ground for lobster, bass, and deeper rockfish. All participants noted that this MPA is the most impactful for Oceanside commercial fishermen. One participant estimated the majority of fishing grounds were lost to MPAs and it is not viable to fish in northern San Diego County anymore.</p> <p><i>Participants from Oceanside and San Diego Area ports</i></p>
	San Diego Area Ports	
All MPAs in LA/LB area	Los Angeles/Long Beach Area Ports	<p>All MPAs have had negative effects on fishermen who operate out of the Los Angeles/Long Beach area. The MPAs closest to where fishermen used to fish have resulted in the most negative effects, and the MPAs have cascading effects on fishing areas further away.</p> <p><i>Participants from Los Angeles/Long Beach Area ports</i></p>

MPA	Regional Port Group	Synthesis
Big Flat SMCA	<i>Group A: Crescent City, Trinidad, Eureka, Shelter Cove, Fort Bragg, Albion, Point Arena</i>	MPA implementation has restricted CPFV access to rockfish and halibut fishing grounds.
Bodega Head SMR	<i>Group B: Bodega Bay / Bolinas</i>	Prior to MPA implementation, this area was a historically important fishing ground for CPFV fleets due its proximity to the port, allowing fleets to make multiple fishing trips in one day. Fishermen experience compaction on the MPA boundaries, which can scare away fish and create unsafe conditions on foggy days. The MPA restricts salmon trolling, which affects salmon fishermen. One participant did not understand the value of closing this area to salmon fishing , but understands the value of closing it to rockfish fishing.
Bodega Head SMCA	<i>Group B: Bodega Bay / Bolinas</i>	Prior to MPA implementation, this area was a historically important fishing ground for CPFV fleets due its proximity to the port, allowing fleets to make multiple fishing trips in one day. Fishermen experience compaction on the MPA boundaries, which can scare away fish and create unsafe conditions on foggy days. The MPA restricts salmon trolling, which affects salmon fishermen. One participant did not understand the value of closing this area to salmon fishing , but understands the value of closing it to rockfish fishing.
Stewarts Point SMR	<i>Group B: Bodega Bay / Bolinas</i>	Prior to MPA implementation, this area was an historically important fishing ground for local fleets because of its good bottom structure.
Stewarts Point SMCA	<i>Group B: Bodega Bay / Bolinas</i>	Prior to MPA implementation, this area was an historically important fishing ground for local fleets because of its good bottom structure.
Point Reyes SMCA	<i>Group B: Bodega Bay / Bolinas</i>	CPFV fleets have lost access to important safe harbor areas and productive fishing grounds due to MPA implementation. Local fleets used to make multiple trips to this area in one day.
	<i>Group C: San Francisco Area Ports, Princeton - Half Moon Bay</i>	
Point Reyes SMR	<i>Group B: Bodega Bay / Bolinas</i>	CPFV fleets have lost access to important safe harbor areas and productive fishing grounds due to MPA implementation. Local fleets used to make multiple trips to this area in one day.
	<i>Group C: San Francisco Area Ports, Princeton - Half Moon Bay</i>	
Russian River SMCA	<i>Group B: Bodega Bay / Bolinas</i>	Prior to MPA implementation this area was a productive fishing ground for rockfish.
Various Farallon Island MPAs	<i>Group B: Bodega Bay / Bolinas</i>	Some CPFV and charter operators anticipate they will fish near Fanny Shoals more often once regulations open deeper water fishing. One participant noted that local CPFV and charter operators did not fish in this area before MPA implementation.
North Farallon Islands SMR	<i>Group C: San Francisco Area Ports, Princeton - Half Moon Bay</i>	CPFV fleets have lost access to important safe harbor areas and productive bottom habitat for fishing due to MPA implementation.

MPA	Regional Port Group	Synthesis
Southeast Farallon Island SMR	<i>Group C: San Francisco Area Ports, Princeton - Half Moon Bay</i>	CPFV fleets have lost access to important safe harbor areas and productive bottom habitat for fishing due to MPA implementation.
Southeast Farallon Island SMCA	<i>Group C: San Francisco Area Ports, Princeton - Half Moon Bay</i>	CPFV fleets have lost access to important safe harbor areas and productive bottom habitat for fishing due to MPA implementation.
Point Reyes Headlands Special Closure	<i>Group C: San Francisco Area Ports, Princeton - Half Moon Bay</i>	This MPA is all sandy bottom and fishermen would like to see it opened to fishing access, which, they believe, wouldn't harm the protected elephant seals.
Año Nuevo SMR	<i>Group C: San Francisco Area Ports, Princeton - Half Moon Bay</i>	This MPA has not affected CPFV business much.
Montara SMR	<i>Group C: San Francisco Area Ports, Princeton - Half Moon Bay</i>	Prior to MPA implementation, fishermen used to fish in the area a lot, and some still do illegally. MPA restrictions force fishermen to travel farther to access fishing grounds. One participant thought the MPA designation will support healthy fish populations that they could access in the future, similar to the reefs south of Pigeon Point, which produce good quality fish after not being fished for two decades.
Anacapa Island SMR	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this area was a productive fishing ground, and its closing has had damaging effects on local CPFV business.
Anacapa Island SMCA	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this area was a productive fishing ground, and its closing has had damaging effects on local CPFV business.
Footprint SMR	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this area was a productive fishing ground, and its closing has had damaging effects on local CPFV business.
Scorpion SMR	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this area was a productive fishing ground, and its closing has had damaging effects on local CPFV business.
Gull Island SMR	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this area was a productive fishing ground, and its closing has had damaging effects on local CPFV business.
Carrington Point SMR	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this area was a productive fishing ground, and its closing has had damaging effects on local CPFV business.
Harris Point SMR (San Miguel Island MPA)	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this was an important area to local CPFV fleets, including both day boats and overnight charter boats.
Richardson Rock SMR (San Miguel Island MPA)	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this was an important area to local CPFV fleets, including both day boats and overnight charter boats.

MPA	Regional Port Group	Synthesis
Judith Rock SMR (San Miguel Island MPA)	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this was an important area to local CPFV fleets, including both day boats and overnight charter boats.
Point Conception SMR	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	MPA designation restricts CPFV fleets from accessing the area, causing frustration for charter boats that are able to make the extended trip and have overnight capacity.
Naples SMCA	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	MPA designation restricts CPFV fleets from a productive fishing area that is close to the mainland and only requires a short day trip, causing owners/operators to change their business model accordingly.
Point Dume SMR	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i> <i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	Prior to MPA implementation, this area was a productive fishing ground for sea bass and pelagic finfish, and was frequented by charter boats from Santa Barbara and Channel Islands Harbors. One participant believed the MPA was expanded and specifically positioned, based on input from environmental NGOs, to ensure CPFV operations could not harvest any fish from the reef at Point Dume.
Point Dume SMCA	<i>Group E: Morro Bay, Avila-Port San Luis, Santa Barbara, Ventura, Port Hueneme-Oxnard</i>	Prior to MPA implementation, this area was a productive fishing ground for sea bass and pelagic finfish, and was frequented by charter boats from Santa Barbara and Channel Islands Harbors.
Laguna Beach SMR	<i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	Prior to MPA implementation, this area was a historically important fishing ground that was near CPFV home ports. Restrictions force half-day CPFV fleets to travel farther to access target species, which has doubled their fuel costs.
Laguna Beach SMCA	<i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	Prior to MPA implementation, this area was a historically important fishing ground that was near CPFV home ports.
Dana Point SMCA	<i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	Prior to MPA implementation, this area was a historically important fishing ground that was near CPFV home ports.
Crystal Cove SMCA	<i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	Prior to MPA implementation, this area was a historically important fishing ground that was near CPFV home ports.
Swami's SMCA	<i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	Prior to MPA implementation, Oceanside fishermen relied upon this area because it has some of the best habitat structure.
South La Jolla SMCA	<i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	Fishermen drive through this area and see schools of yellowtail and other species, but cannot stop and fish due to MPA restrictions.

MPA	Regional Port Group	Synthesis
Farnsworth Onshore SMCA	<i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	MPA designation affects Newport CPFV fleets' ability to fish for rockfish, yellowtail, and other species.
Long Point SMR	<i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	MPA designation affects Newport CPFV fleets' ability to fish for rockfish, yellowtail, and other species.
Cabrillo SMR	<i>Group G: Orange County Area Ports, Dana Point, Oceanside, San Diego Area Ports</i>	This MPA does not affect CPFV businesses, but it does affect local commercial lobster fishermen.

Appendix B.3 Commercial fishing and CPFV focus group participant recommendations

The following list is a compilation of suggestions and requests made by focus group participants related to MPA management specifically, and fisheries management broadly.

Focus group participant suggestions related to MPA management:

Communication and Engagement

- Consider fishermen's input in MPA decision making and build trust by taking action based on this input
- Improve two-way communication between decision-makers and fishermen
- Engage fishermen in MPA management and monitoring processes in ways that are meaningful and equitable
- Revisit communication regarding MPA goals and permanence of MPA network
- Suggestion for managers to communicate how MPAs are helping fishermen - if they are improving marine resource health
- Do more to justify value of MPAs - they are expensive to enforce and maintain, and create large negative impacts on fishermen
- Communicate with fishing community about MPA management and monitoring outcomes via frequent and direct emails to permit/license holders
- Engage sea urchin divers statewide in discussions about kelp and sea urchin grazing issues

Management and Decision-Making

- Revisit discussions with fishermen about adaptive management, and consider a more dynamic management approach for a dynamic ocean environment
- Implement rotational closures for MPAs, rather than permanent closures
- Reconsider closures since there is currently less concern about trawlers, gillnets, large fishing fleets than there was when MPAs were implemented
- Consider MPA management modifications on regional or place-based scales, as MPAs are not 'one size fits all'
- Consider changing some MPA designations to allow for more flexible management (i.e., change some SMR designations to SMCA designation to allow salmon trolling and sea urchin harvest, as SMCA designation allows for more management)
- Reconsider anchorage in MPAs for safety reasons
- Allow harvest of invasive species, based on discussions during MPA planning process regarding invasive species and seaweed
- Reconsider allowing harvest of urchins inside MPAs, based on kelp abundance and sea urchin grazing issues
- Hold fewer meetings about increasing closed areas (i.e., related to 30x30 Initiative) until current closed areas are effectively managed
- Consider all compounding factors and weigh positives and negatives of potential effects of MPAs when making decisions about MPA management. Potential factors to consider include social and economic impacts to fishing communities, 30x30 Initiative, wind energy development, entanglement risk, MPAs, RCAs, CCAs, permit transferability, depth restrictions, quotas, etc.
- Make decisions that support California seafood production
- Make management decisions without influence of special interest groups
- Implement future ocean development (i.e., wind energy) where fishermen are already not allowed to fish (i.e., within MPAs)
- Manage fisheries through gear limits and seasonal closures rather than area closures like MPAs.
- Managers should read focus group summaries

Enforcement

- Develop system of visual, land-based markers to help identify MPA boundaries from the water
- Support efforts to prevent heavy boat traffic in biologically important areas to limit effects of large vessel activity on seabirds and other marine life
- Consider opportunities during enforcement encounters for education versus straight to citation

Focus group participant suggestions related to fisheries management broadly:

- Ensure there is an overlap between fisheries and MPA management (i.e., to reduce crowding around MPA boundaries, consider reducing trap limits)
- Invest in port infrastructure statewide
- Consider socioeconomic impacts of management decisions
- Make management decisions to support seafood production in California by considering the importance of California's commercial fishing industry to seafood supply, jobs, etc. beyond ex-vessel value
- Be more proactive in addressing fisheries management issues as they arise
- Consider both small ports and large ports in fisheries management decisions
- Make in-season adjustments to regulations, e-tickets can help w real-time data collection
- Consider timing of restrictions when making management decisions (i.e., sea urchin fishery timing restrictions create unsafe incentives for divers to fish in inclement weather to avoid missing limited fishing opportunities)
- Improve internal agency tracking of fishermen input to avoid lost institutional knowledge due to agency staff turnover
- Consider impacts of COVID-19 on fishing effort and opportunity when making management decisions in the near-term
- *For suggestions related to individual fisheries, please see focus group summaries in Appendix C*

Appendix C. Commercial fishing and CPFV focus group summaries¹

¹ Summaries are being updated for consistent nomenclature (but not substance) parallel to peer review

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network *Members of Crescent City's Commercial Fishing Community*

The Marine Protected Area (MPA) Human Uses Project Team¹ is hosting over 30 virtual focus group conversations with fishermen throughout California from July - October 2020. The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts of MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Crescent City

Date: Thursday, August 6, 2020

Participants: Gerry Hemmingsen, Victor Pomilia, Randy Smith, Troy Wakefield

Overview

On August 6, 2020, four commercial fishermen operating out of Crescent City participated in the second focus group conversation. A high-level summary of the conversation is captured below, including:

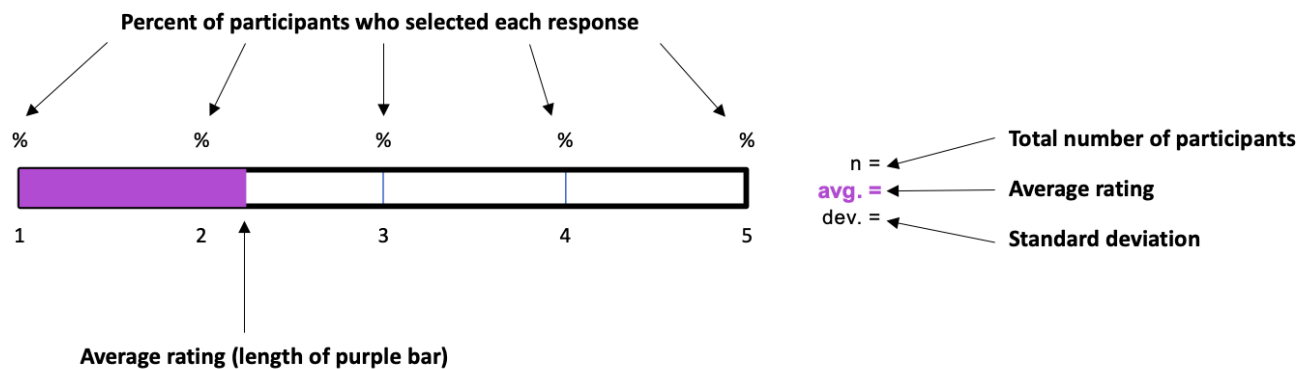
- the numerical final scores (via Zoom polls) for questions asked within each theme;
- a summary of participant's perceptions, insights, and perspectives related to each question; and

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 16 figures displaying participant responses for those questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 13 and 19 that display all of the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

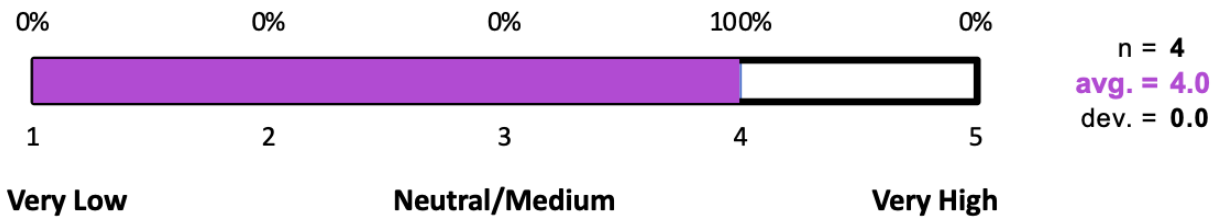
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, North Coast \(2013-2017\)](#)

Our Project Team would like to express our appreciation to the four Crescent City fishermen—Gerry Hemmingsen, Victor Pomilia, Randy Smith, and Troy Wakefield—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary In terms of the current health and sustainability of marine resources, participants expressed the view that ocean conditions and several species are generally healthy.

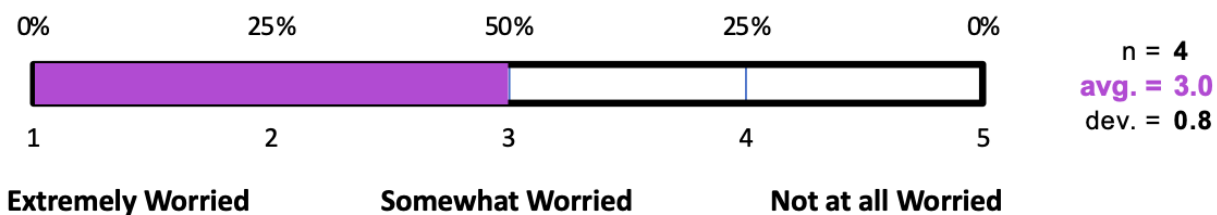
- Several fishermen noted that prawn/shrimp populations have been up in recent years, and Dungeness crab populations, though cyclical, are also doing well. One participant believed Dungeness crab in the Crescent City area is currently in a low cycle, but that it is likely high elsewhere on the California coast.
- One participant mentioned through the use of technology, fishermen can detect feed and ocean conditions, and that they are currently seeing an abundance of feed across species.
- Most participants believe that while the species sport fishermen rely on may be doing well, this does not provide a clear indication of the health of commercial species in the area.
- One fisherman highlighted some worry with regard to an overabundance of species that feed on pink shrimp and Dungeness crab larvae.

Participant Quotes

"I just, I've been fishing, like I said, for 10, 11 years now. And since I started in the two fisheries that I've been in, the ocean just seemed very, very healthy as a whole [. . .] I mean the prawns seem to be up. I know the shrimpers have had good years, the [Dungeness] crabs cycle, but somewhere on the coast, you know, they've been [doing] well [. . .]."

"With our technology, we could see the amount of feed and ocean conditions on our electronics and there's [an] abundance of feed of all species through the food chain. So we're pretty comfortable with the way the ocean is responding to the environment."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary When reflecting on the long-term health of marine resources, several participants expressed they are not as concerned about future ocean conditions as they are about how marine resources are being managed.

- Several fishermen believed that the ocean is and will remain healthy overall, though there was some worry with regard to climate change.
- A couple of fishermen emphasized it is difficult to separate concerns related to the future health of marine resources from those related to current and future fisheries management and regulation; many were more concerned about regulations preventing them from accessing resources than they were about the future health of marine resource populations.
- One participant communicated concerns related to how whale populations and entanglements with fishing gear might affect commercial fishing access in the long term.

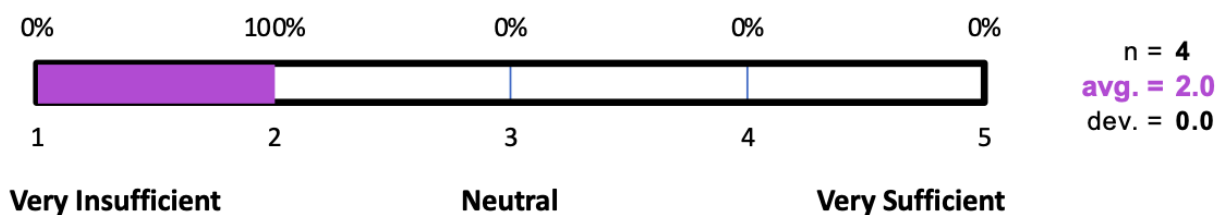
Participant Quotes

"I think, you know, there's a lot of concern about the whole climate change thing, I think, how that's going to affect the industry."

"It's hard to separate the resource worries with the management worries [and] regulations coming down on fishermen because of, you know, of some resource issues. So it's really hard to separate that. But I know fishermen are worried about the industry overall [. . .] I don't think the resources are going away or anything like that as a personal worry but I do worry about how we're going to get regulated out of business - that's a concern. So I don't know how you separate the two when you're worried about the industry. But as far as a resource, I think it's gonna be fine, but I know fishermen are worried."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants expressed several concerns related to the level of access to commercial fish resources for fishermen from their port.

- Several fishermen perceived the loss of the commercial salmon industry in Crescent City as having a lasting effect on the port.
 - Several participants identified the closure of the commercial salmon fishery this year as a result of Klamath Management Zone (KMZ) regulations, and that the salmon industry is moving north and south out of Crescent City. One participant added that KMZ regulations have become a reality for Crescent City fishermen in recent years.
 - A majority of participants believed that while other fisheries have emerged, including pink shrimp, none have been able to contribute economically as much to the port as salmon did. One participant explained that after the salmon fishery closed, most fishermen in Crescent City were only able to work two to five months out of the year.

- One participant believed participation in multiple fisheries is difficult for Crescent City fishermen because of the barriers to access associated with limited entry and lack of affordable and accessible permits. Another fisherman identified the financial and capital investments that are required to enter the commercial fishing industry as a barrier to access.
- Several participants perceived the combination of fishing regulations and area closures as having compounding effects on fishermen.
 - One fisherman cited essential fish habitat areas, KMZ regulations, and rockfish conservation areas (RCAs) as restrictions of particular concern because they affect nearly every aspect of the fishing industry.

Participant Quotes

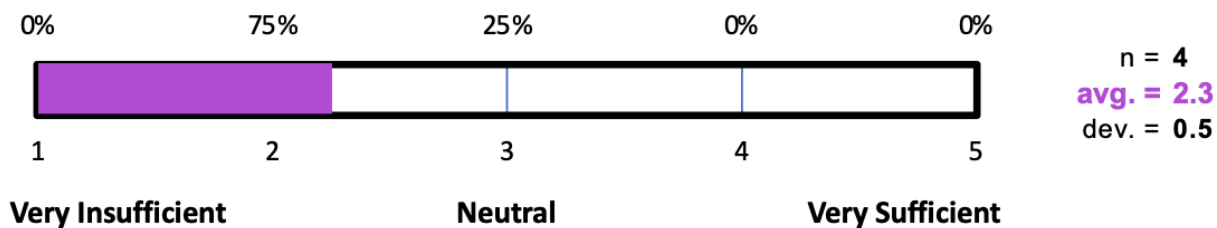
“The salmon industry certainly drags us down to, I think, insufficient because that used to be very prosperous in our port and it's no longer. I was thinking that [maybe] there's kind of trade-offs: we do a little more of this and a little less of that. But I kind of think that we've lost out on that fishery and that was a big part of this community.”

“Well, I do [wish to access other fisheries]. But if you look at the fleet [. . .] they're not able to. It's limited entry and the permits aren't available.”

“And just to expand on what [name redacted] was saying, it wouldn't be so bad if the management took one or the other [area closures], either had to be essential fish habitat areas or the MPAs, or the regulations, but we get nothing on both of them. So we get, you know, in my estimation, we get over regulated and we get the restricted areas.”

“Over the years, I saw a lot of fishermen go away because they couldn't afford to be diverse. And that's what we're seeing here. It's just, it's getting smaller and smaller, their fleets are getting smaller and smaller because people can't afford to be diverse.”

4. *Income from Fishing* Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary When discussing income and livelihoods from fishing, participants indicated that the costs associated with fishing, among other factors, have made it difficult for fishermen to support themselves on income from fishing alone.

- One fisherman estimated that most of the Crescent City commercial fishing fleet has a second job, and that only a small percentage fishes full-time.
- A majority of participants perceived that costs associated with fishing have increased while the price of fish has decreased.

- Several participants indicated that effects from the COVID-19 pandemic have made it increasingly more difficult for fishermen to cover their costs, but that lower fuel prices have eased some of the burden.
- One fisherman reflected on how fishing used to be profitable despite the challenges, but that it has become less secure and has less benefits than other jobs.
- Due to limited access to fishing grounds, one participant highlighted the need for fishermen to diversify the fisheries they participate in to make a viable living. They added that not every fisherman has the capacity to diversify, and as a result, they are forced to leave the industry.

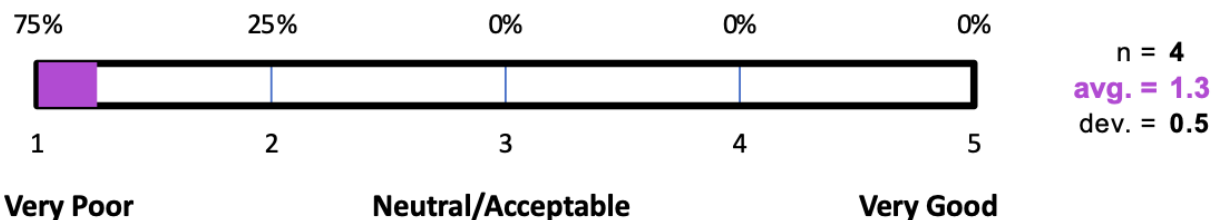
Participant Quotes

"I was just gonna say [there are] few boats [. . .] that are lucky enough to fish year around and have fisheries, you know, that pretty much go year round. There's two or three weeks out of the year, besides the closures now where you can't fish. People do make an okay living still at it. But there's a lot of people in our port when salmon shut down and stuff like that that only work for two or five months out of the year. And yeah, those, those boys have to have other jobs."

"I mean, nothing gets cheaper except the price of fish."

"And due to this coronavirus, we're down and we're scraping the bottom trying to cover our costs over it and we wouldn't cover our costs if it wasn't for the cost of fuel being down. So we'd be all tied up, we'd really have a problem. So luckily the price of fuel [is down] and somebody took a hit on that because people are going broke, like the fuel companies, you know, they can't afford to compete. So that's a ball of wax on that."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary When discussing markets, participants noted that nearly all fish is either landed out of state or distributed south of Crescent City. Given current market conditions, they believe their local markets will continue to get worse.

- Several participants shared that the market situation in Crescent City is nearly as bad as it could be as there currently is no processing plant or steady buyer based in the port.
- A majority of participants highlighted that most of the pink shrimp caught off the California coast is landed in Oregon, resulting in a significant economic loss for Crescent City.
 - These fishermen shared that the reason for this is due to California not completing its Marine Stewardship Council (MSC) certification for pink shrimp, which is required by buyers to sell to European markets. As a result, California's pink shrimp industry has been relocated to Southern Oregon.

- Several participants shared that while one of Crescent City's primary live buyers is located in Oregon, their remaining product is trucked to Oakland and is distributed from there. As a result, pricing is expensive because most of the buyer's revenue goes toward trucking and fuel.
- One participant indicated that fishermen do not feel supported in their efforts to sell their catch locally. They added there is a local fish store that could potentially do well, especially in the summer months, but that it is poorly managed. Additionally, selling directly to consumers does not seem to be a priority for the harbor since it was rebuilt.
- Participants reported that the COVID-19 pandemic has affected markets in several ways, including a significant loss of seafood sales and a reduction of trucks coming into Crescent City to purchase small quantities of fish.
 - Another participant shared that they expect there to be a greater price reduction for Dungeness crab as a result of the pandemic based on what they have seen happen in Alaska.

Participant Quotes

"I do feel very poor. I think, we lost the shrimp processing in California, there'll probably never be shrimp processing in California again because of the [Environmental Protection Agency] EPA and the City of Eureka. There is no processing in Crescent City. So I think we're going to have market problems in the future."

"I think we're going to lose some of our live buyers, seasons are going to be so short that they're not going to survive. So our markets are bad now but they're going to get worse."

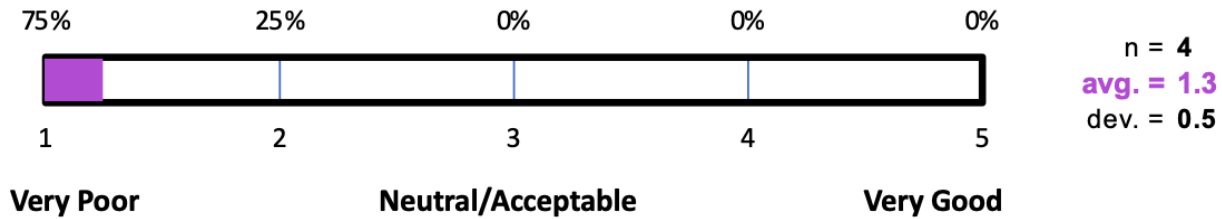
"Three of us have been unloading in Oregon all year, and the rest of the fleet is unloading in Brookings now. So because we don't have the MSC certification [in California], and in the marketplace MSC is very valuable... [the buyers] don't want to buy something if it isn't MSC. So we've kind of had the leg shot out from under us because we didn't qualify in California. So now basically the shrimp industry is out of California. It's going to Southern Oregon now, and that includes product caught off the coast of California going into Oregon. So the Department has lost revenue from all that, and so has the port itself."

"I mean, there's [no processing] done around here. And that's why there's problems with the pricing around here. It's so expensive for [the live buyer] to truck. You know, I mean, anything that could be made is spent on the truckers and the fuel."

"With this COVID-19 thing, the few small trucks that were coming up and buying a little bit of fish, just small line markets, trying to get in there, no, I mean, I haven't seen one of them come up since this started so it's really about keeping the few markets that we have going."

"I mean we lost 98% of our seafood sales this year because of COVID, and that is driving the prices down. And the ability of the markets have changed [. . .] We have pretty good markets, all four of these folks that are on here now. But there are people in this [port] that have really crappy markets this year and the price for all of this is down."

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Related to the port’s infrastructure, participants discussed the relationship between limited product being landed in Crescent City and the state of the port’s facilities.

- Several participants highlighted that fishermen are unable to sell their catch at port due to the lack of processing facilities (especially for pink shrimp) which, in turn, creates a need to truck almost all product out of the area.
- A couple of fishermen shared that without product being landed in Crescent City, particularly pink shrimp, there is no longer revenue to maintain the harbor. Services that support fishing needs, like dredging, will be harder to obtain which will make boat maintenance difficult.
- Another participant added that the harbor receives a portion of the money for every gallon of fuel sold in Crescent City, but with most fishermen now fueling their boats in Oregon, the port no longer receives these funds.
- One participant questioned whether fuel will continue to be accessible in Crescent City since fishermen are purchasing fuel out of state due to cost savings.

Participant Quotes

“Trucking is a huge problem in this port, the processing plants left right before I came in, you know, just things like that. Also makes it much harder in this port because what you can catch, it can be difficult to get rid of it.”

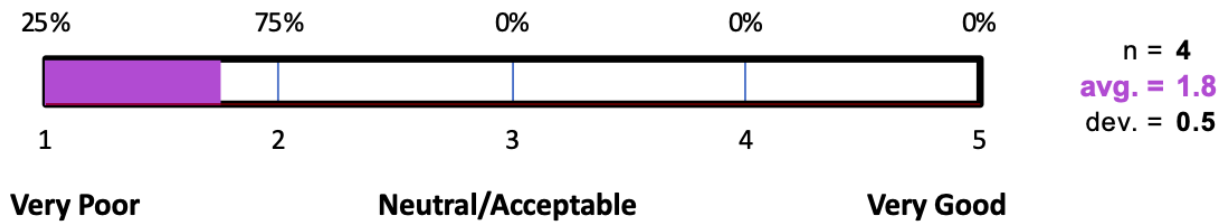
“Because of pounds not being delivered into this port, the dredging is going to be harder and harder to get and without dredging, we won't be able to do boat maintenance here in Crescent City.”

“The harbor has problems maintaining a brand new harbor because they don't have the revenue from the shrimp industry, which was a big part of revenue over the years.”

“The fuel dock is also, you know, part of that harbor gets money for every gallon of fuel. It's pumped over here and now with deliveries into Oregon, of course, we're all fueling up in Oregon. So, you know, and there's certainly a benefit to us because the fuel [in Oregon] is usually \$1 less a gallon [. . .], but we wouldn't, we probably would not be doing that if we were fishing out of this port.”

Well-Being, Social/Political

7. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary When discussing labor concerns, participants indicated that recruitment and retention of participants to the commercial fishing industry was difficult due to economics and the overall challenges associated with the industry.

- One participant mentioned several barriers to entry, especially for younger individuals, including the financial investment. They also highlighted there are not many incentives to enter the industry, however there are a great deal of deterrents like regulations, lack of benefits, and overall economic instability. Another participant mentioned future concerns as reasons why people are not entering the industry, including more potential restrictions, environmental concerns, and ocean wind energy.
- Several participants explained that the labor pool is very small, and that it is difficult to recruit and retain good crew members. One fisherman explained those who enter the industry often do not stay for more than a week.

Participant Quotes

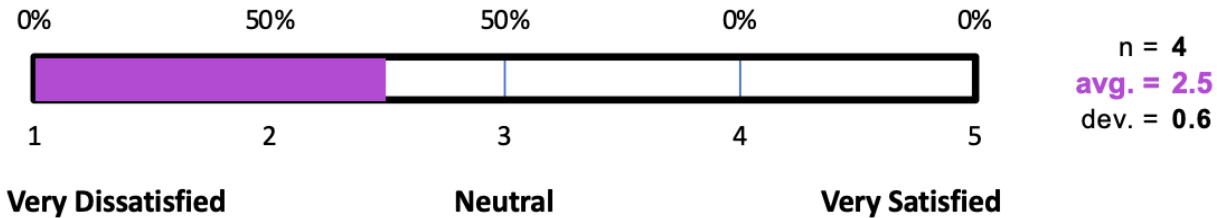
“It's practically impossible to get especially young people into the industry, you know, there's various reasons. We kind of touched on them, economics, I mean having the money to get into the industry or even in, you know, a job recruiting try to replace a crewman, nobody wants to get into this industry. There's virtually no benefits [. . .] there's not much of an incentive, especially with the regulations, the unsureness, the insurance of the industry. Overall, you know, people are just not out there wanting to become fishermen that I see.”

“There's a lot of people that come into this industry that don't make it more than a day or a week. [. . .] The recruitment is way down. I mean, I haven't been around that long. I know people talk about, you know, in the 70s and 80s, with the mills running here that there were people all over, but it is hard to find people.”

“When it comes to crew, the crew pool is so small. It's hard to come up with good people anymore. That's the bottom line. You go through a few people and you end up keeping one of them because they're the best of all, you know, the choice is way down, a lot worse than it used to be.”

“One of the reasons the crew pool is so small is that people look at the future of the industry and with every year, there's new restrictions. I mean, we're getting hit from all sides. If it isn't the environment, it's management and now we're looking at wind energy on the ocean. So they're going to take more of the ocean away that we traditionally fish, and so that scares people from getting into this industry as a crew or investing in the industry.”

8. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



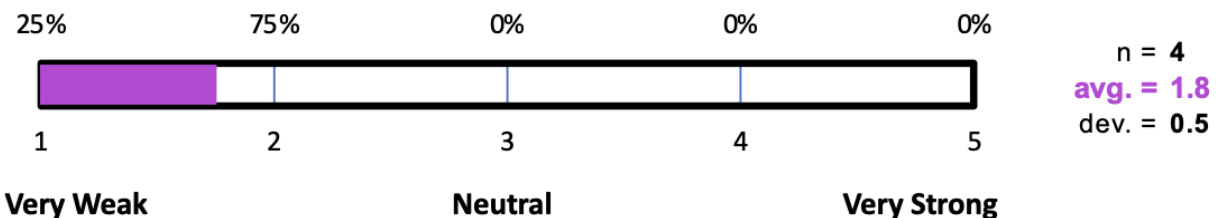
Discussion Summary One participant explained that job satisfaction in the fishing industry is often related to whether fishermen can fulfill their crew and pricing needs.

- The majority of participants estimated that given the state of the labor pool, job satisfaction will decrease. They added that when there is an abundance of product and the prices are high, job satisfaction typically increases.

Participant Quotes

"So there's going to be a lot of dissatisfied people [in the industry] over the next couple years [due to the current price of the product]. But when the years are good the products are plentiful and the prices are high, there's a lot of satisfaction."

9. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Overall, participants reported they felt social relationships within the Crescent City fishing community were weak.

- Several participants believed there is a lack of trust between groups within the community, and that different groups do not seem to work together to support each other and the industry. One participant noted that only a small portion of the fleet works to sustain the industry in Crescent City.
- One participant explained that while some fishermen were able to obtain permitting for Dungeness crab pots through the Crescent City Fishermen's Marketing Association, the association is not active.
- One fisherman emphasized that communication among community members is important, but that internal strife prevents community organization and progress.

Participant Quotes

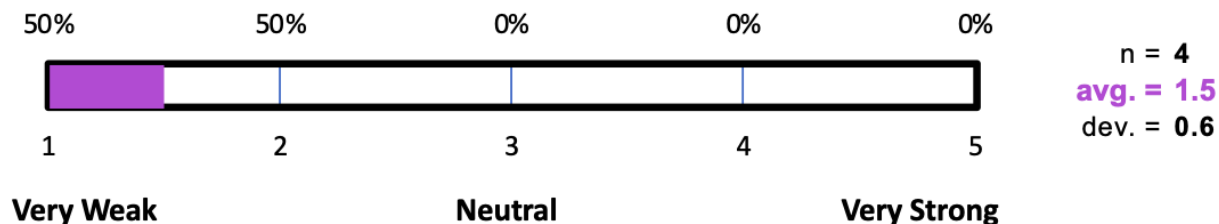
"The first question, with internally within the group of fishermen, and even though there are different factions sometimes, you know, we get into the whole small boat/big boat thing, but

each of those groups has some sort of reputation. So I think within their groups they work okay together. So it's certainly weak but I don't think it's very weak."

"I wouldn't say [the marketing association] really was active. I'm part of it. I mean, we did, me and [name redacted], [. . .] and then [name redacted] helped me. We got the permitting to pick up the crab pots through that association, you know, but that's the first thing they'd done in a long time, you know, but people pay their dues to be at the price meetings. So it had a little bit of money, so it did pay for the permit for that. But I mean that's been it."

"None of them really seem to get along very well, and a few of them, you know, they do talk amongst each other, but they have no representation at all because they don't want representation but, you know, they will do nothing to help out [. . .] I know I'm the youngest one here, by far, but some of the people just don't seem to care at all if it ended in five or eight years - they would be done with their fishing career. Anyway, some of them have enough money where they're not worried about selling their boats, you know, I mean, it's just that part doesn't bother them that much and they just, they don't want to help. They don't seem to care one bit if the industry died with them. They get to be the last one that caught, you know, kind of a thing. So I don't see them helping, period. And it's just kind of a bummer. You know, because it is a very, very small portion of the fleet trying to, to keep it going, at least in this port. I don't talk to that many people in other ports, but in this one here. It's a very small portion."

10. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants shared negative views about their fishing community's relationship with external groups.

- One fisherman believed that the fishing industry lacks support from California Department of Fish and Wildlife (CDFW) and non-governmental organizations (NGOs).
 - Another participant described how the community has had some communications with CDFW and NGOs through the California Dungeness Crab Fishing Gear Working Group and the Dungeness Crab Task Force, but there is mistrust between the fishing community and CDFW and NGOs.
 - One participant perceived that there is some engagement in policy processes among the fishing community, but that fishermen do not always trust those who are involved.
- Several fishermen indicated that the local community generally does not support the fishing industry in Crescent City, though they have provided monetary support in times of crisis in the past (e.g., tsunami events).
 - One fisherman believed that the Harbor District is developing the harbor to become a tourist attraction without commercial fishing or fishermen. Given that the industry has

become smaller over the years, they were not sure if the local community knows the commercial fishing fleet exists.

- Another participant explained that as the fleet ages, commercial fishing seems to become less prominent within the broader community.

Participant Quotes

“When you get into outside help, like help from [CDFW] or help from these other NGOs or these other groups, I think it's abysmal on the help that we've got to support the industry.”

“With some of the policies that we're fighting, such as the whale entanglements, there's been a small group of people on the coast that [are fighting] the battle with this problem that we're going to be confronted with every year. And I think a lot of it is, it's not all economics. A lot of it is mistrust of the people that are driving the California Coast Crab Association. They're the lead in fighting these new regulations with entanglements so there's a lot of mistrust in that [. . .] and it's a large percentage that are afraid that we're up to something - I'm part of the group - in the background that's going to hurt them.”

“But I think communication more with [CDFW], more with NGOs, you know, we've got a little bit of that through the whale working group. And we've got a little bit of that with the D[ungeness] Crab Task Force, with [CDFW], but there's a lot of mistrust [. . .] not only within the fishing community itself, but outside the fishing community [with CDFW] and these other NGOs, I mean there's not much trust. Every time it seems like we're asked to help out [by the state or NGOS] it comes back to bite us.”

“We've gotten to such a small group, I'm not sure a lot of the community even knows we exist anymore or [. . .] that we're still in business. But I think for the most part, the people that have been around a long time do have some support for fishermen. As the demographic changes, you know, as we move on, I think it gets less and less. I think we're getting to the point of being almost insignificant, which is pretty sad, in our industry.”

“I'd like to see the industry continue on it. I think at the rate it's going, it's not. It's disappointing.”

Well-Being, Overall/Additional Comments

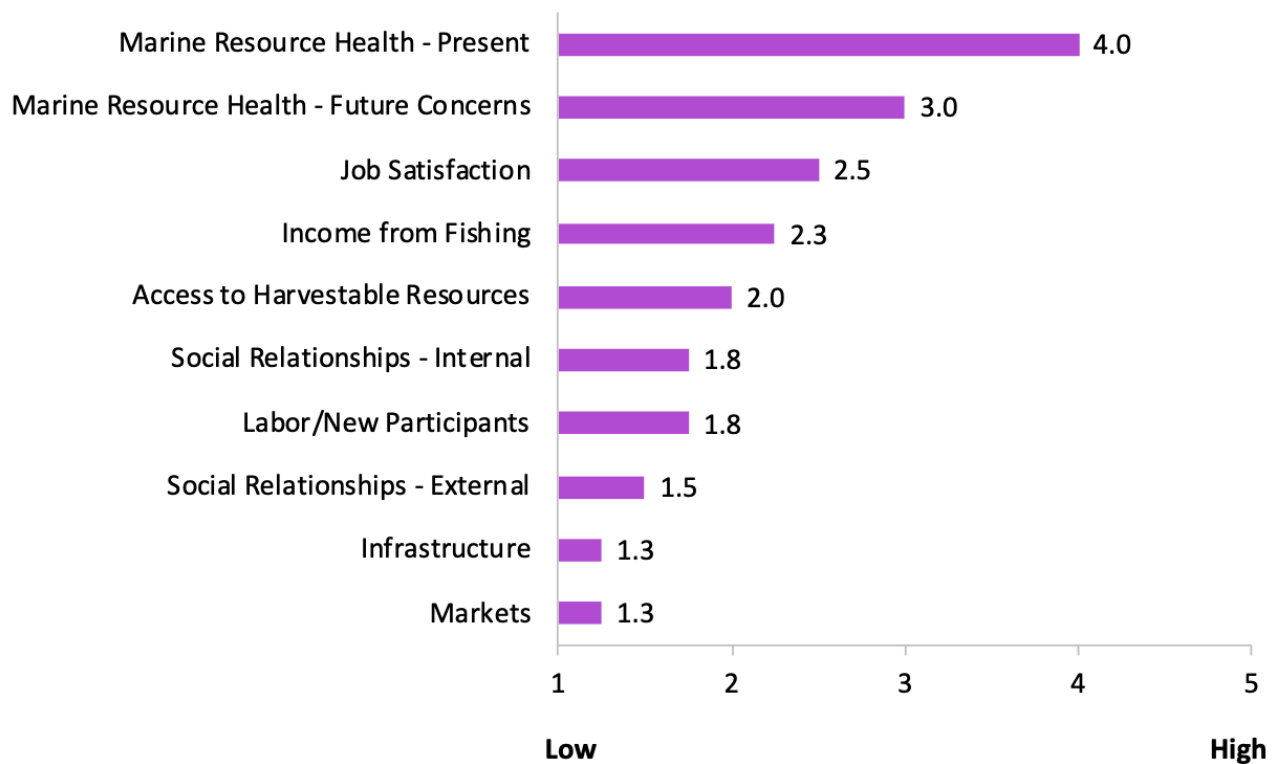
11. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary When asked to follow up with additional information or recommendations related to fishing community well-being, several participants expressed worries about the long-term health of the industry and offered suggestions for fishery managers.

- Participants re-emphasized their concerns about the lasting effects of whale entanglement issues and the effects of COVID-19 on markets due to restaurant closures that will likely decrease sales.
- Several fishermen suggested CDFW make efforts to improve how managers communicate with fishermen.
 - One participant expressed some concern with regard to CDFW holding separate conversations with fishermen and environmentalists. They believe these meetings should be more open and collaborative.
 - Another participant recounted how fishermen were unable to get MSC certification for pink shrimp as a result of poor communication and would like to see efforts from the state to obtain that certification.

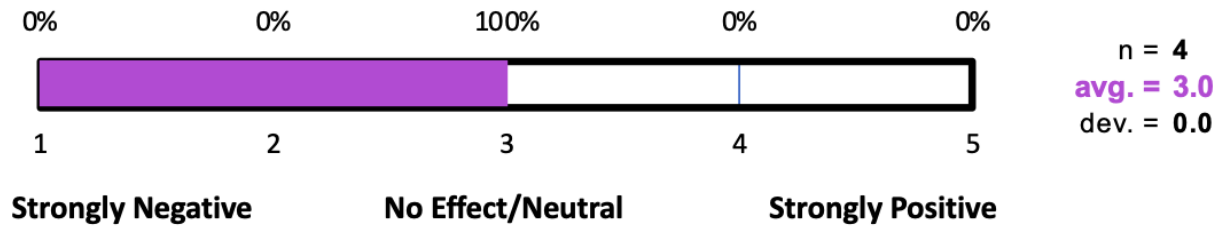
Perceptions of Fishing Community Well-being, Average Responses for Questions 1-10



Perceptions of MPAs

MPAs, Outcomes/Effects

12. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Several participants stated they are not clear on the effects, positive or negative, of MPAs on marine resource health in their area.

- One fisherman shared that despite having attended MPA meetings that indicated MPAs were having a positive effect on resource health, the fisherman had not noticed any change since the MPAs were designated and did not think that MPAs made much of a difference, with the caveat that they are not a scientist.
- One participant was aware of the MPA baseline surveys conducted upon implementation of the MPA network, and expressed some interest in learning about the ecological effects of MPAs.
- Another fisherman believed because so few fishermen were fishing in areas that are now MPAs prior to MPA implementation, the MPAs have not had an effect on marine resource health. In addition, they believed fishing was still occurring in MPAs due to the lack of enforcement.

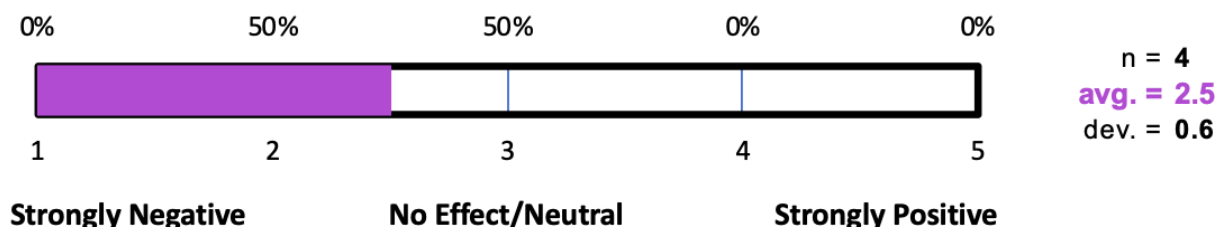
Participant Quotes

"I mean, very small, insignificant. And so, I don't think whether having them or not having them really would change anything in our area. [. . .] I have gone to some MPA meetings after the fact that they say that all these areas are doing wonderful, and I'm sure that they are, there's no reason that they shouldn't. But I think in our areas they wouldn't be able to show much of a difference, I shouldn't say that they don't, but I think little or no impact in our particular area."

"I don't know if this was supposed to be a systematic thing. So it was, you know, they had [MPAs] completely down the coast. So they were all kind of interacting with each other and supposed to do great things. And in our area, I don't think that there's been a big difference. I could be wrong. I'm not a scientist and not an -ologist of any kind."

"I think one thing that's going on is that they are still being fished off and on. We've had people catch crab in them and nothing happens. So then you get more and more of that."

13a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question *13b. MPA Effects - Overall* which summarizes the conversations related to questions 13a and 13b.

13b. MPA Effects - Overall *What other types of effects or impacts have fishermen from your port experienced from MPA implementation?*

Discussion Summary Participants reported that MPAs had a minimal effect on fishermen from Crescent City, but that MPAs in general create more difficulties for fishermen overall.

- A majority of participants perceived that the MPAs in Crescent City were not placed in the most productive fishing grounds, though one participant stated that they can no longer fish for pink shrimp in restricted areas. However, most participants believed that Dungeness crab and pink shrimp do not stay within the MPAs, and that their natural movement outside MPA boundaries allows fishermen to continue to fish these species.
- One fisherman detailed how MPAs have made it more expensive to catch Dungeness crab because they are required to use more bait and spend more time drawing the species outside of the MPAs whereas if there were no MPAs, they would spend less time catching Dungeness crab by going directly to the source.
 - Another participant explained one positive effect related to MPAs in that the greater amount of Dungeness crab within the MPAs allowed Dungeness crab fishermen to fish later in the spring due to the available biomass.
- One participant noted that a fisherman's ability to earn a living is affected any time an area is closed off from fishing.
- Participants were not aware of any fishermen leaving Crescent City as a result of MPAs, nor did they believe MPAs had an effect on the political organization in the port.
- One participant mentioned the global target to designate a percentage of the world's oceans as MPAs, and stated that restricting areas from fishing makes it difficult for the industry to continue. They added that in taking away fishing grounds, MPAs lead to compaction and an increase in gear in some areas which exacerbates other issues such as whale entanglement.
- A participant noted that an MPA placed near the Oregon border was important fishing grounds for fishermen from Brookings, OR. After implementation, Brookings fishermen moved further south to fish near Crescent City, causing more crowding in the area.

Participant Quotes

"And the only thing that I know as a shrimp fisherman that there's two of the MPAs here that we do not fish in any longer. But shrimp aren't staying in those areas anyway. They're moving in and out of that area naturally and moving all the time. Anyway, so eventually we're going to catch those shrimp if they happen to be in there now."

"I think it's minimally negative, but anytime you take an area away from fishermen, you're certainly going to impact their ability to earn more so, yeah, I don't think it's significant. But I do think it's worth noting that, I think it's negative anytime you take away fishing area."

"I'd like to add to that, I think we can still catch the crabs [when they move out of the MPAs], but it costs us more money, we're fishing around them and pulling those animals out there with more bait. So, it costs us more with fuel - it takes longer to fish those areas. [. . .] The way we

fish is to fish as fast as we can and go on to the next fisheries. [. . .] So this just slowed some of us down.”

“Brookings boats have come to California to fish crab, because of the MPAs, because there's a large MPA that covers the border and a large part of it's in Brookings and Oregon and so they feel there's more ground to fish in California. So there has been an influx of boats from Oregon into California below the MPAs.”

MPAs, Discussion of Specific MPAs

14. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants highlighted that all MPAs in their area have had a negative effect on Crescent City fishermen.

- *Pyramid Point State Marine Conservation Area (SMCA)*: Several participants shared that Oregon fishermen fished in this area before it was designated as an MPA, and that upon MPA implementation, more Oregon fishermen continued to illegally fish there in retaliation for it becoming a restricted area.
- *Reading Rock SMCA*: One fisherman expressed that this area was fairly significant for Dungeness crab and drag fisheries.
- *Point St. George Reef Offshore SMCA*: One participant explained that fishermen did some dragging and pink shrimp fishing as well as crabbing and line fishing in the area before this MPA was established.

Participant Quotes

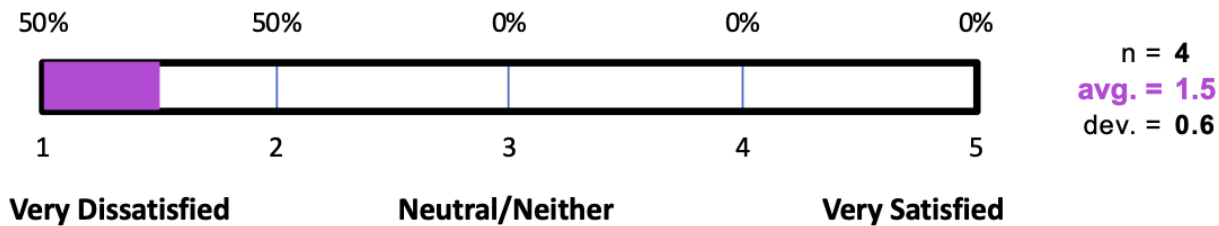
“Well, I'd like to bring up a point about the Pyramid Point SMCA that hasn't been mentioned in that when that first went in there is - and it's a political point - when that first went in, the Brookings guys were mad at us, because that's a lot of their fishing grounds or fishing area, so they think that we did it on purpose. And so some of our pricing of Dungeness crabs is done on the phone. Each Association called into the other Associations up and down the coast and they had gone fishing because they were mad at us without going and getting the price that we were all trying to get. They just went fishing on that point to get back at us.”

“I think that Reading Rock area was fairly significant to the Dungeness crab fishery and even to the drag fishery to some point because I think we used to drag fish right close to Reading Rock and now we can no longer do that.”

“The Point St. George [SMCA], I think we did some dragging around that area too, if I remember right, and shrimp, and so there are some restrictions there as well as our line fisheries and maybe some crabbing too, so I think they've all had some negative impact on the fishing industry.”

MPAs, Management

15. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants expressed they were dissatisfied with the communication of information related to MPA management.

- The majority of participants believed that managers could better share MPA goals and whether the MPAs are improving resource health. One participant explained that fishermen heard little from managers after the implementation process, and that those who did were the ones who were involved in the process.
- When reflecting on the MPA implementation process, one participant recalled that the fishermen who were involved were able to bring other fishermen's perspectives to the MPA meetings, and they believed that this resulted in a satisfactory outcome for the port overall. They explained that those most dissatisfied with the process were Oregon fishermen.

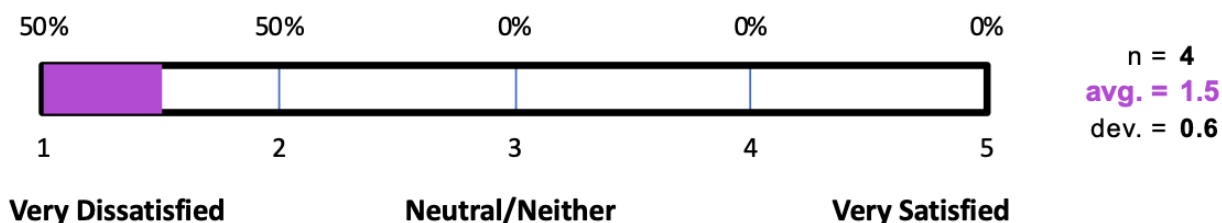
Participant Quotes

"I think for our area - I'm not talking about other areas because I know other areas did not have the same kind of information gathering [during the MPA implementation process] that we did - but I think for our area in getting the response that we did end up with what were proposed, I think we ended up in a much better place than it could have been. So I think that whole process for me was pretty satisfactory."

"Most people have no idea [of MPA management] [. . .], I just don't think that that does the state any good to not try and make people aware of why [MPAs are] there or if they are or aren't healthy."

"I just think [. . .] they need to do a much better job of making, especially fishermen, but entire communities aware of what they're doing. But the point is, it was just kind of a weird deal when they implemented them, you know, 'we just, we have to do this,' and [it] just kind of went through, was done, and then you just don't hear much about it."

16. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



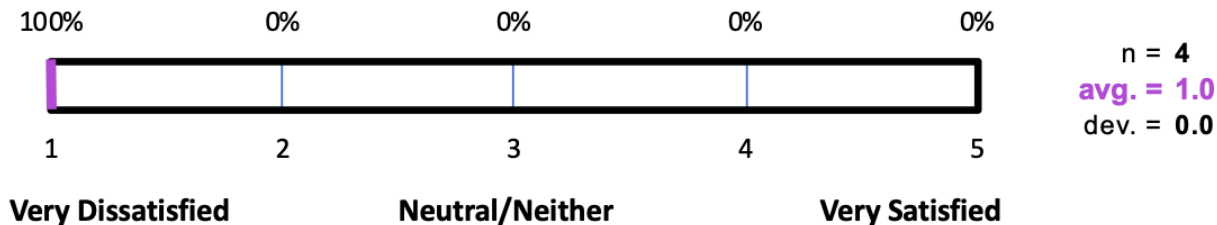
Discussion Summary Most participants had limited knowledge of MPA monitoring efforts to comment on the monitoring program.

- One fisherman shared they have not seen any research vessels in the area and are not aware of monitoring in general.

Participant Quotes

"I have the same [dissatisfied] feeling about the monitoring of the animals within the MPA itself too. We don't see any of that. I don't know that we've seen any research vessels out there, checking or going. Nobody's reported that to me anyway that, 'oh yeah, there's such and such a boat out there and they're monitoring just this MPA and they're checking it out.' So, at least in our area, I haven't heard of that. So it may be happening. But, so I kind of have to go along with [name redacted] on that, you know, being unaware of it, still dissatisfied that we're not aware."

17. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants were generally dissatisfied with MPA enforcement.

- Several fishermen believed that enforcement has declined since MPA implementation, and that there currently is no enforcement observed in the Crescent City area. One participant added that if the MPAs are not enforced, they should be removed.
- One fisherman expressed issues regarding fairness of enforcement where sometimes fishermen are penalized for fishing in an MPA and other times they do not receive so much as a citation.

Participant Quotes

"Most people are not aware because they don't think there is any [enforcement]. Fishermen basically are the only ones [enforcing]. But even if they do call in and say, 'x, y, and z is fishing in this MPA,' there doesn't seem to be any reaction. Nothing seems to happen."

"There's been other people in MPAs and they've done nothing to them. No citations written. It's ridiculous. If they're not going to enforce it, they outta just close the MPAs down. Either that or enforce it."

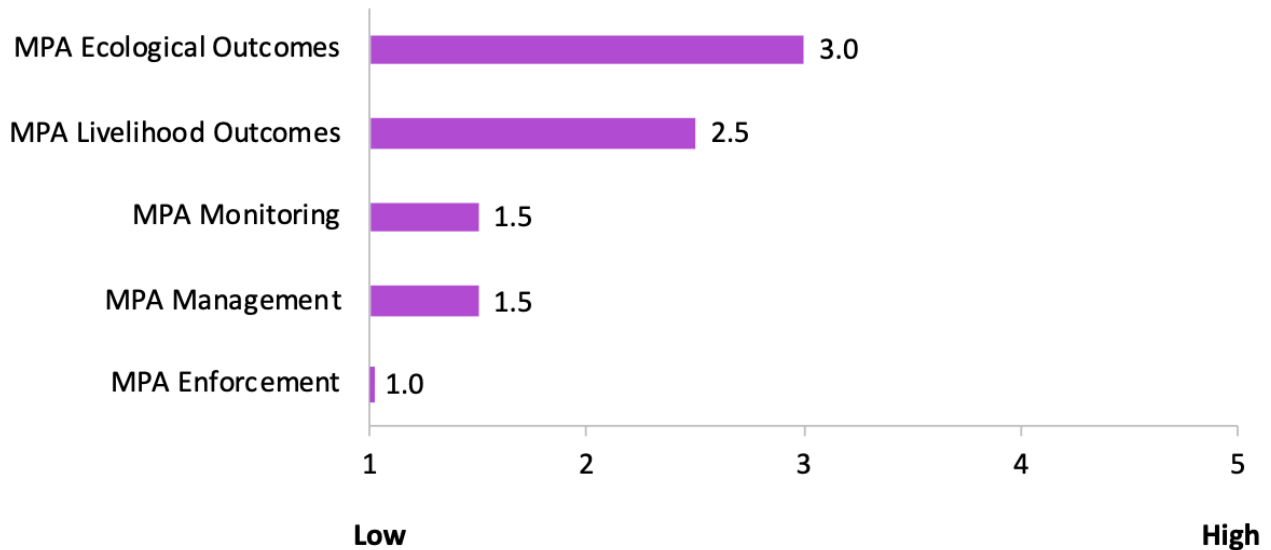
18. MPA Overall Any additional comments or concerns about the MPAs and MPA management you would like to communicate?

Discussion Summary All participants shared concerns regarding future MPA expansion.

- One fisherman believed that if research shows MPAs are not improving ocean conditions, then MPAs should be reduced in size. Another fisherman expressed some worry that the state will use fishing data to justify the expansion of MPAs.

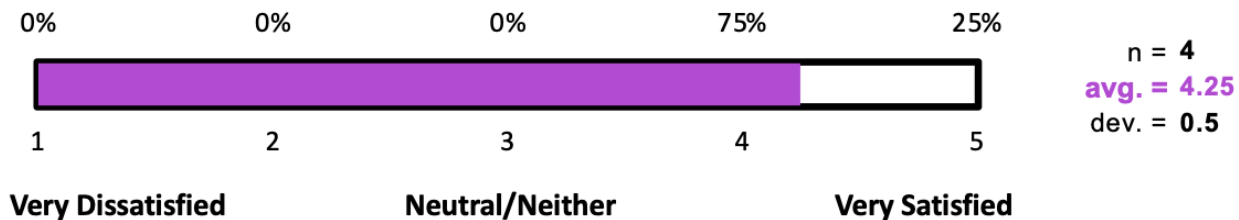
- One participant explained that the MPA implementation process seemed to be ‘one size fits all,’ and that the smaller population in Northern California compared to the Central or Southern parts of the state should warrant modifications to the size and location of MPAs in the area.

Perceptions of MPAs, Average Responses for Questions 12-13a, 15-17



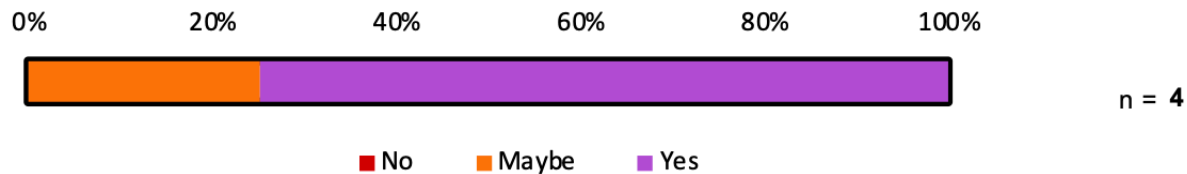
Feedback on Virtual Process

19a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



19b. Willingness to Participate in Virtual Process in Future *Would you be open to participating in a virtual focus group or meeting like this in the future?*

(**Note:** For the following figure, the length of the orange bar indicates the percent of participants who responded 'Maybe' to question 19b. The purple bar indicates the remaining percent of participants who responded 'Yes.' If participants responded 'No,' a red bar would appear.)



19c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Overall, participants were appreciative of their fellow fishermen for their willingness to engage in a virtual focus group conversation, and for the opportunity to hear their perspectives.

- One participant was disappointed that more fishermen from different fisheries could not be on the call, but acknowledged the time commitment and technology needs necessary to engage in an online meeting format.
- Another participant was glad the virtual meeting ended at the scheduled time and added that, in general, this is an important consideration for them along with shorter meetings overall.

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network *Members of Trinidad's Commercial Fishing Community*

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Trinidad

Date: Tuesday, October 27, 2020

Participants: Zach Rotwein, two anonymous participants

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

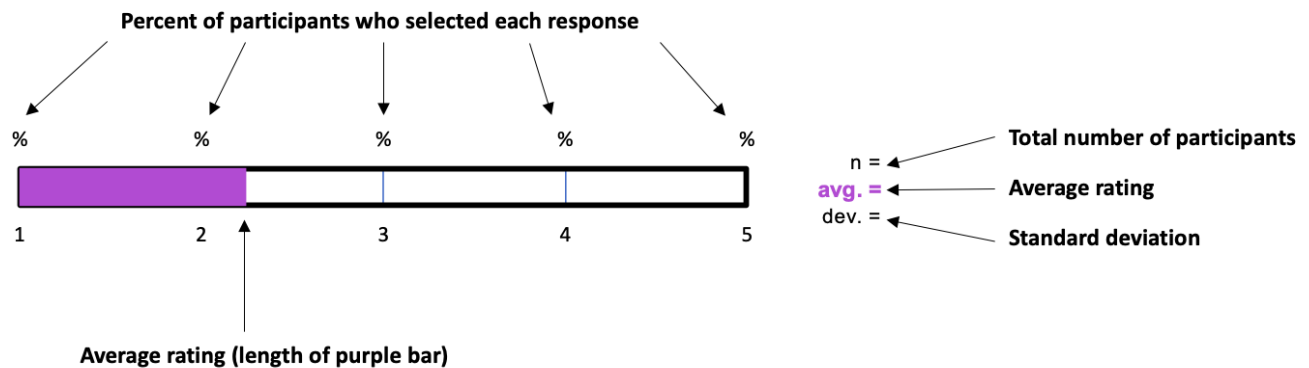
Overview

On October 27, 2020, three commercial fishermen operating out of Trinidad participated in the tenth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.³

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 15 and 23 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2013–2017, North Coast](#)
- [Information about the square mileage of MPAs in California coastal state waters](#), including regional and statewide MPA statistics
- [Statewide MPA map](#)

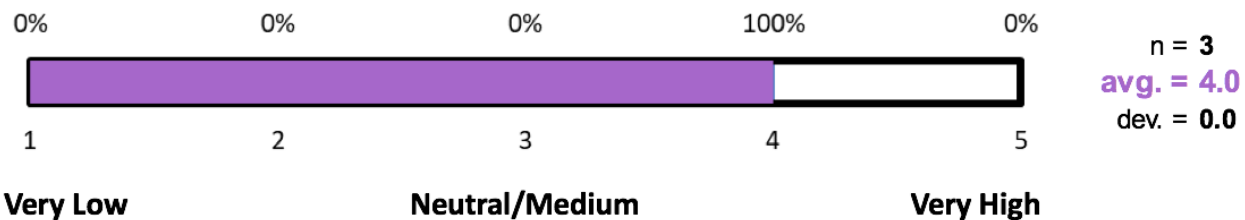
³ The quotes throughout the document came from various participants including those who wish to remain anonymous.

Our Project Team would like to express our appreciation to the three Trinidad fishermen—Zach Rotwein and two anonymous participants—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants reported marine resource health in the Trinidad area varies across species but that, overall, ocean resources seem balanced and healthy. They indicated that while most species seem to be doing well, there are concerns about the management of the salmon fishery as a result of deprioritizing hatcheries.

- Several participants perceived Dungeness crab to be very healthy and abundant.
- One fisherman reported high bottomfish abundance, though another fisherman stated it is difficult to assess bottomfish and black cod abundance since Trinidad fishermen seldom target these species due to quotas.
- One participant believed there is a large biomass of anchovies, squid, and albacore tuna.
- One participant stated salmon abundance in Trinidad is low and that wild salmon runs on the Klamath River have been poor for the past several years. They shared the concern that salmon hatcheries are not as widely available as they once were; another participant attributed this decrease in hatchery presence to politics.

Participant Quotes

“I think that the abundance in the ocean's pretty good. I think sea life's doing well in general, but the management sucks.”

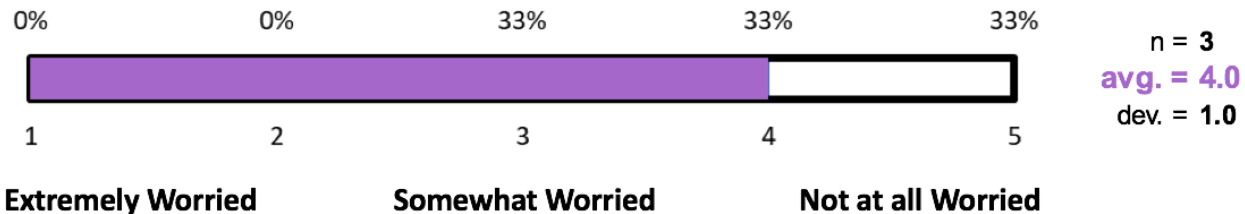
“For crab, [. . .] we have a healthy resource... very healthy - not just healthy - very healthy.”

“I think things are in pretty good shape. The biomass on the anchovies is pretty seriously thick, as is squid, as is albacore tuna. We don't know about the bottomfish because they're not being targeted that hard because of quotas, black cod - same deal on quotas. [. . .] Things seem balanced to me.”

“[holding up historic photo of adult hatchery salmon] It was the beginning of the hatcheries when they were trying to figure out if they would work or not. They obviously worked for some reason. We don't have so many hatcheries anymore. [. . .] The Klamath River [has] had such bad

salmon runs the last few years [. . .] there's no fish coming up the river hardly, and they're just getting small, tiny."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants expressed concerns regarding the effectiveness of fisheries management in supporting both the long-term health of marine resources and economic well-being of fishermen who depend on those resources. They did not specify concerns related to future ocean changes or marine resources themselves.

- One participant shared a sentiment of deep distrust in management stemming from the loss of access to marine resources as a result of management actions through the years. These losses have hindered their ability to support themselves and their family through commercial fishing. As a result, they do not trust that future management decisions will contribute to the long-term health and sustainability of marine resources that fishermen rely on.
- Another participant recalled a time when salmon abundance was high and believed this was the result of salmon hatcheries. They stated that since management objectives have begun to focus on the resurgence of wild salmon and because salmon hatcheries have closed, salmon populations have dropped, leaving them worried about the impacts of management on future salmon health.

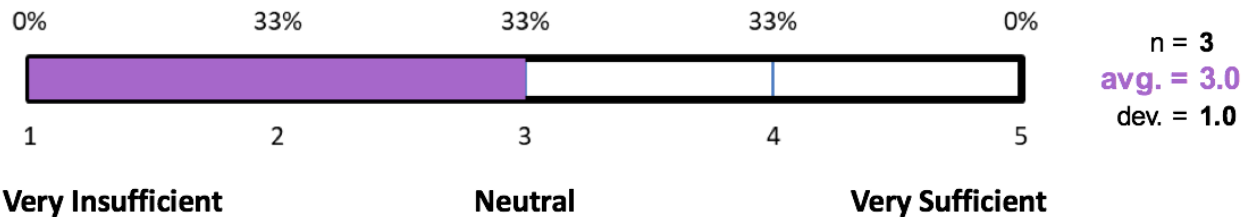
Participant Quotes

"I don't trust the management. Every time somebody meddles in our business, we wind up with less fishing area, less grounds, less opportunity - I got a family [to support]. Now it's whale [entanglements] [. . .] it just keeps coming at us. I think if the [fisheries managers] do their job, we would be rocking and rolling just fine."

"My only concern with the salmon is the mismanagement of it. [. . .] Somebody came up with this faulty decision that we had to have wild salmon - which I don't think they can scientifically justify because I don't think there's any such thing as wild salmon - but we used to have hatcheries everywhere. We used to have healthy populations. But since the management got involved, with the change in the way they manage fish, there's not been the [volume of] fish that we used to have for salmon, and I don't think we ever will, so I'm extremely concerned about salmon. I don't call that a resource issue, I call that a mismanagement issue."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants identified several factors that either contribute to or limit access to marine resources for fishermen out of Trinidad. They believed resources are abundant and there are not any physical barriers that hinder fishermen's access to harvestable resources. However, they reported costs associated with fishing operations as well as fisheries management inhibit access.

- One participant stated local fishermen are able to fish in inclement weather because they do not have to cross a coastal bar that is often a hazard in other ports.
- Regarding resource abundance, one participant reported there is plenty of Dungeness crab for both local and out-of-town fishermen to harvest. They explained the volume of catch depends on the amount of effort they put into fishing.
- Several participants highlighted the financial barriers to purchase fishing permits, gear, a boat, and boat insurance that hinder fishermen from entering or persisting in the fishery.
- One participant identified fisheries management as a barrier to access. For example, when the Dungeness crab season opener is delayed or when the season is closed due to marine life entanglement issues, fishermen cannot work because Dungeness crab is the main fishery in Trinidad.

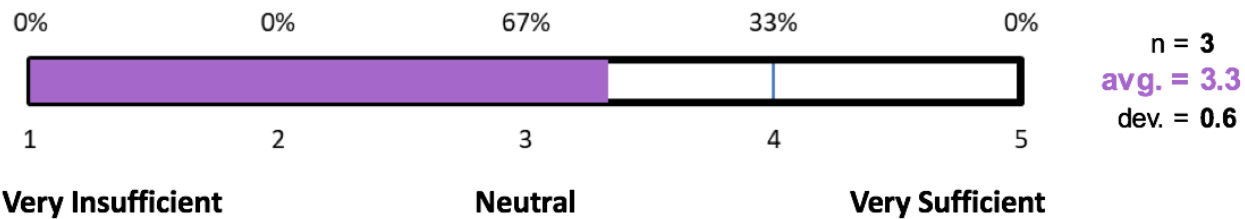
Participant Quotes

"Fishing out of Trinidad, it allows us to fish in weather that [we otherwise wouldn't be able to if we had] to cross a bar... it's got its ups and downs."

"I think there's plenty of crab out there, and the people that aren't making a living crabbing in our port, it's not the crab's fault. [. . .] If you're trying hard, you catch your share of crab. If you don't try hard, somebody from out of the area catches those crabs. They're not our crab, they're everybody's crab here. I think that if everybody worked together, there'd be enough for everybody, but everybody's got a different business plan. The opportunity's there, whether they take advantage of that opportunity or not for crab. Any other resource, that's another subject."

"You could buy a house for the amount of money that it costs you to go buy a boat and a permit, [and] you can't get insurance on your gear, your crab pots and all that stuff. You can get some insurance on the boat, but it doesn't really cover you... Or to have a season and be able to actually go to work - that's all I ask for, is to let me go to work and let me provide for my family, and that's it."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants indicated that income from fishing supports some people and their families better than others. They explained fishermen who do not earn enough money commercial fishing in Trinidad supplement their income elsewhere within the fishing industry (e.g., operating charter boats, commercial fishing for salmon in the Bay Area).

- One participant stated they earn sufficient income from fishing to support themselves and their children. They added that Trinidad fishermen earn more income catching Dungeness crab compared to salmon which does not yield sufficient income.
 - Another participant recounted that when salmon fishing was prominent in Trinidad, there were two to three times more fishermen than there are today who were able to make a comfortable, middle-class living from fishing.

Participant Quotes

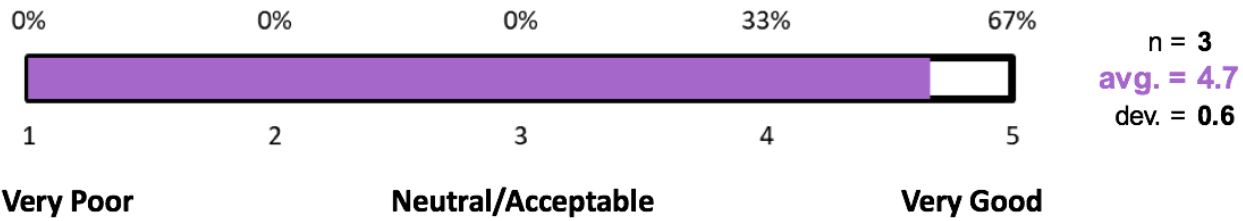
"I picked 'Neutral' because some people are doing better than others. Everybody's got a different story. It seems like there's people that are very successful [. . .] and then there's people that are just barely hanging on. So it's a mixture of everything to me."

"[Some people] charter in the summertime, which probably is what keeps them afloat; they've only been [in Trinidad] for a couple of years. Another boat, he fishes salmon and he has to go down to San Francisco and make his money down there."

"I've done an amazing job with supporting my family [with income from fishing]. I have four daughters, [and fishing's] what keeps our family going."

"It wasn't very many years ago when there were 40 or 50 or 60 boats in Trinidad making livings, supporting families - I mean, people making decent money. We just don't have that [anymore]. We got 17 boats now or 18 boats or something. It's not like the good old days [during] the salmon boom when there were [more than] 50, 60 boats tied up there. It used to be that a lot more middle class families were making a living on the fishing industry and having nice - not extravagant - but nice lifestyles on fishing income, and I don't see that anymore."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants shared the belief that the Trinidad market for Dungeness crab is among the best in California because fishermen always have a buyer for their product even though they compete with bigger boats that fish in waters near Trinidad.

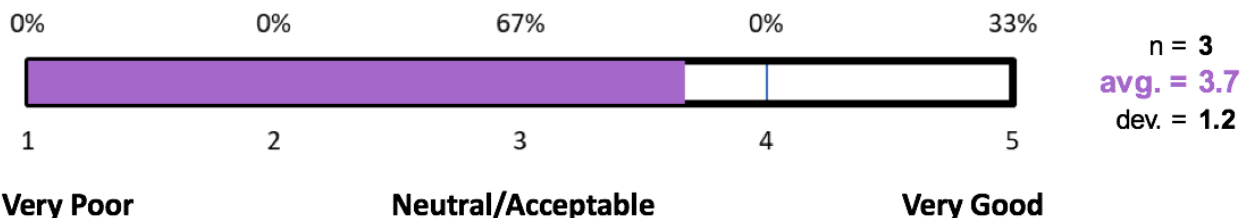
- One participant shared how fishermen used to have to sell their product locally through direct sales but because they currently have consistent buyers, they do not have to worry about how they are going to sell their crab. They attributed this market stability to the high desirability of Dungeness crab across the West Coast.

Participant Quotes

"I think we have the best marketing situation in all of California for Dungeness crab in Trinidad. You couldn't ask for a better situation."

"I can remember my boss that I bought the boat from telling me that he would have to take his own crab in a box and go sell them on the street. And as long as I've ever fished in Trinidad, we've always had a buyer. Every time I've gone to sell my crab, we've never not had a buyer. Our crabs are desired on the West Coast for all the buyers. And [. . .] there's a lot of big players that come to fish right outside of Trinidad - big boats from all over the place come fish right there."

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants reported Trinidad lacks important infrastructure and services (i.e., ice, a dock, fuel), but fishermen make do with what is available. They believed this lack of infrastructure helps groom fishermen out of Trinidad to be more successful.

- Several participants explained Trinidad used to have a fuel station, but it was removed because it had fallen into disrepair and caused water quality issues. One participant stated fishermen have adapted by bringing fuel in barrels to their boats, but added it would be nice to have a fuel dock.
- Participants noted that although the pier was recently rebuilt, it is still too narrow to allow more than one vehicle at a time because when it was rebuilt, the pier was not allowed to be any wider than the old one was.

- Several participants indicated that while Trinidad has its advantages (e.g., not having to cross a coastal bar like Eureka fishermen) and disadvantages (e.g., not having a fuel dock), improved infrastructure would increase competition within the port. They believed it would be difficult for Trinidad fishermen to earn a living from fishing if they had to compete with more people.
 - Another participant stated that having some hardship in terms of infrastructure makes Trinidad fishermen tougher and more competitive with out-of-town fishermen.

Participant Quotes

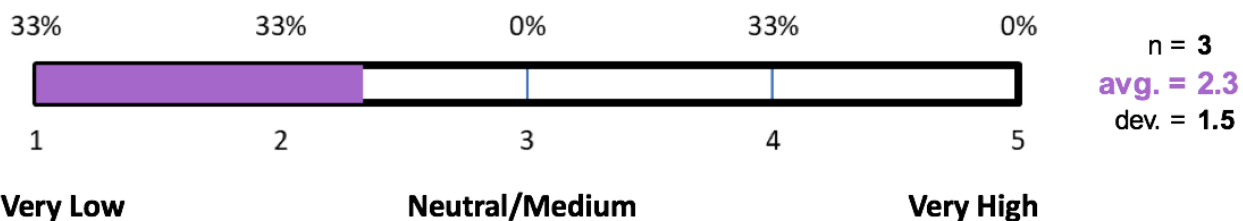
“Depending on what you're fishing for, the port may lack some things, like there's no ice there and stuff like that. But for me and crab fishing, Trinidad has treated me very well. I mean, it might be easier to go out of other places [where you're] tying your boat up to a dock - that's pretty nice if you got something to work on.”

“It's against the law to have a fuel station here, [but] we've adapted. It would be nice [to have one] - we can whine about wanting fuel here, but good luck trying to get that. We used to have fuel here until a bunch of environmentalists moved into our town and told us we couldn't.”

“When they built that brand new pier, the state of California said you can't make it any wider than it originally was. So, yeah, they built a brand new pier, but they couldn't make it any bigger than the original one.”

“If we made [the port] any nicer, more people would come and it would be harder to make a living. [. . .] If you try to make it perfect, then you might be screwing yourself. [. . .] If you added more infrastructure to the area, you'd be bringing some of those [out-of-towners] up here. So to ensure success, [you] have to have a little bit of hardship because that makes it just that [much] more viable for the people that are willing to put up with it.”

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port's fishing operations?*



Discussion Summary Participants indicated COVID-19 impacts were variable because while Trinidad fishermen were able to continue fishing for Dungeness crab - although at a lower price per pound - and with less competition from other ports, they also experienced a loss of crew members who decided to leave fishing and collect unemployment.

- Several participants reported the price per pound for Dungeness crab dropped to about half of the typical pre-pandemic spring price. Given the marketing situation in Trinidad detailed in the **Discussion Summary** on page 7, participants stated local Trinidad fishermen were able to continue fishing because they consistently had a buyer who was willing to purchase their crab throughout the pandemic.
 - Participants noted this situation differed for larger boats who decided to stop crabbing because it was not worth it for them to fish for lower prices even though they had

buyers out of Eureka and Crescent City. One participant highlighted how this created more opportunities for local, Trinidad fishermen to continue fishing because there was less competition on local fishing grounds.

- Participants shared how unemployment benefits deterred crew from working in the fishing industry. One participant stated their crew member left because it was easier for them to collect unemployment than to continue fishing during COVID-19. Another participant added that while fishermen were able to continue selling their product, they still needed crew to support their operations.

Participant Quotes

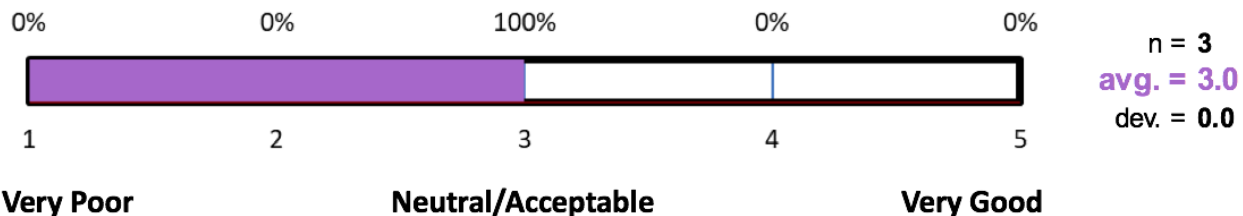
“Last spring, in the heart of COVID-19, we saw a reduced price. [But while] other ports didn't have a market, we had a market. So there wasn't as much competition on our grounds due to the fact that other ports didn't have a market. I think it was a wash [. . .] because, yes, we got a lower price, but we also had less competition due to our incredible marketing situation we have here. So what we saw in less price, I think we picked up not having to share our resources with so many people.”

“When we were supposed to be getting a raise [in Dungeness crab prices], we got deducted [. . .] we were expecting another dollar a pound, dollar fifty a pound. It went down to what we started [negotiating] at, so our little raise that we were getting all of a sudden went down to three bucks. Most boats quit right then, right on the spot. They could have sold their crab still - there were buyers in Eureka and Crescent City. But the fact that the price dropped to three dollars a pound - it wasn't worth those boats fishing. We had a buyer consistently in Trinidad, which we're lucky we [did]. We can make it work with lower prices, but bigger boats - you drop them to three dollars a pound, they're done.”

“As soon as that six hundred dollars a week unemployment showed up, there were people quitting boats. And that happened to me [. . .] I lost a crewman as a result.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Participants stated their assessment of labor and new entrants in the fishing industry varies depending on whether they are discussing captains/boat owners or crew. Several participants highlighted that their response to this question would fall around ‘Poor’ for captains, particularly younger fishermen who are just starting their fishing business, and ‘Good’ for crew members, which is why they selected ‘Neutral/Acceptable’ as an overall score.

- Participants reported several new boat owners have entered into the commercial fishing industry in Trinidad over the last several years. One participant identified one fisherman that was new to the port who had previous commercial fishing experience. Another participant shared how they started as a crew member, worked their way up, and were able to buy their own boat in their twenties.
- Participants explained that while they have seen new entrants to the fishing industry in recent years, there are several Trinidad fishermen who will retire soon. When asked whether this creates opportunities for new, younger fishermen to join the local fleet, participants stated the most significant barrier to entry is the risk and uncertainty of whether fishermen are able to make enough money to support themselves and their family as a result of fishing seasons, particularly for Dungeness crab, that may be delayed or closed. This is especially challenging for new boat owners who need a steady income to cover the initial, upfront costs of entering the fishing industry.
- One participant explained how there used to be steady employment for crew throughout the year with enough time off to fish or hunt recreationally in and around Trinidad. Now, crew members must find employment across several boats that engage in different fisheries throughout the year in order to have steady work (e.g., Dungeness crab in winter and spring, salmon in summer and fall).
- Participants expressed different views with regard to longevity and ease of finding crew.
 - One participant stated Trinidad fishermen are in need of crew since deckhands come and go frequently. They gave the example of how they employ two people for six months of the year and another person for two months, which can create challenges finding and retaining crew members who are willing to work around this schedule.
 - Another participant reported having had an easy time recruiting new crew members, and their crew has been consistent and steady for almost ten years. They believed people are drawn to fishing and working out of the port of Trinidad, especially if they live in the area. They added that although they are able to recruit crew, it is difficult to know whether crew members are good at the job until they start working.

Participant Quotes

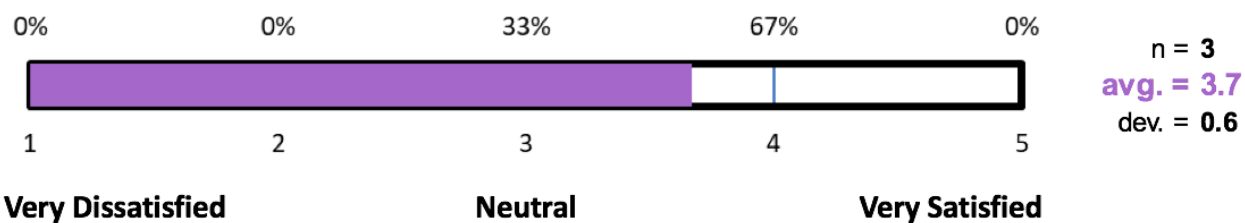
"We've got a couple new boats that have come in the last couple of years, actually some guys that are like my age [when] I bought my boat, and I feel like I was really young [when] I got into [the fishing industry] and I made it happen; I was stacking pots for Captain [name redacted] when I was like 13 years old. They're all pretty young guys that are [. . .] making it work."

"There's three or four boats that are going to retire this year because of old age. They're done doing it [. . .]. To be honest, you got to be almost crazy to get into this industry right now. It's financially irresponsible. I mean, I've made good money, and really, this is all I can do. This is what I do. And so when [the season] gets shut[down early], [it's] devastating to my family, devastating... I can't even explain to you. So for somebody to get into this industry right now, you would have to be crazy or [at least] know what the possibilities are. You can make good money, but there's a possibility that you're going to be spending a lot of money and not making nothing and be left high and dry without anything. You're gambling, big time."

"There was a time, not long ago, where a crewman had year-round employment, where it wasn't just seasonal [. . .] Basically, the traditional deal was that as crewmen on a boat, you'd work all year and you'd have the time off that you wanted to go deer hunting or elk hunting or steelhead fishing on the [Klamath] River or do whatever you wanted. [. . .] That was the old deal, and it's just not that way anymore. The problem these days is that most of the crew, if they want to be full-time employed, they got to get on two or three different boats because boats have their specialties like we do in Trinidad - we specialize in crabbing, and very few boats go salmon fishing consistently. Logistically, there's some technicalities to making it all come together if you want to stay employed full-time as a crewman on a fishing boat these days."

"I've had deckhands for like, ten years straight and I've got another one - this will be his sixth year, so it seems like recruiting new folks is not a challenging thing. There's people that want to come fish in Trinidad. We catch crab and we get to come home to our families. But finding good help, that's hit or miss; you never know until you get them with you and see what they're all about."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



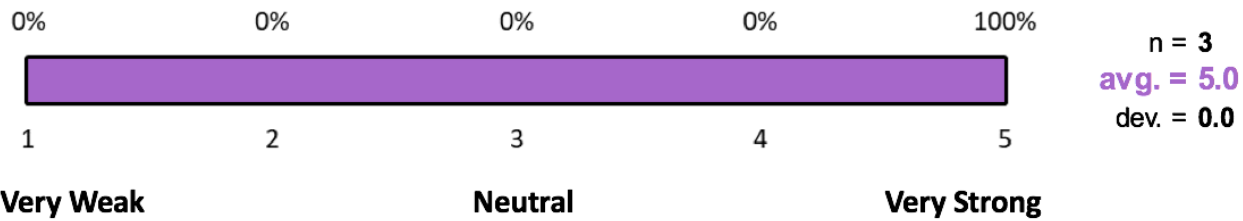
Discussion Summary One participant indicated their job in the fishing industry provides them with a sense of fulfillment because they are able to support their family with the income they earn from fishing. They also highlighted a sense of home and belonging in Trinidad for fishermen who live in the area and are able to return to their families after work rather than having to sleep on their boat like out-of-town fishermen do.

Participant Quotes

"I feel like we're blessed to be able to fish out of Trinidad [. . .] I love crab fishing out of Trinidad. [. . .] For me, there's no better feeling in the world than being [. . .] there for my family. I can support my kids [with my fishing income]. I can't even explain [how that makes me feel], there's no words for that."

"I think a lot of people like fishing out of Trinidad, especially people who have families and kids because we get to go home and spend the nights with our family, and I think a lot of people value that."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants believed social relationships among fishermen in Trinidad are among the strongest compared to other ports.

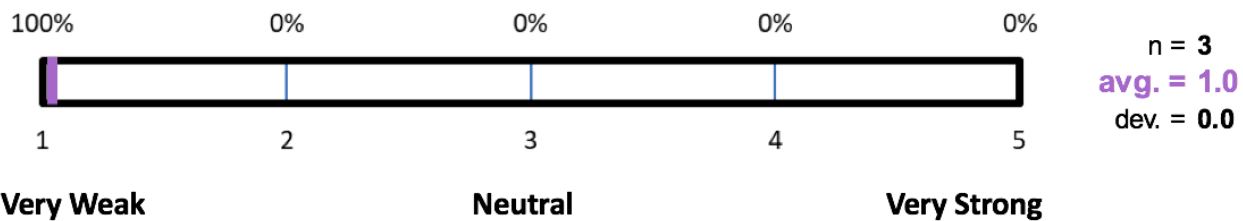
- One participant indicated that ensuring the safety and well-being of local fishermen takes precedence over day-to-day activities (i.e., fishing). They recounted an experience when a Trinidad fisherman needed help while out on the water, and all the other fishermen dropped what they were doing and came to help.

Participant Quotes

"If you can show me a stronger port [than Trinidad], I'd like to see it, because we're as tight as they get."

"I remember one time when [name redacted] hit a log that was sunk underwater - and I was a deckhand on a boat [at the time] - and my captain just screamed... I thought we were sinking. He was freaking out so bad, and we just hightailed it there as fast as we could. And every single boat from Trinidad was enroute, man. [Name redacted] got on his wetsuit, went in there, and saved that boat, dude. Those guys - I would do anything I could [for them]. When it comes to catching crab, that gets put on the back burner, don't matter how many crabs you're catching: if somebody needs your help, you come running."

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants reported relationships with government agencies, like the California Department of Fish and Wildlife (CDFW), and nongovernmental organizations (NGOs) are extremely weak.

- Several participants shared the belief that the goal of fisheries management agencies like CDFW is to shut down the fishing industry as is evidenced by the current management restrictions on commercial Dungeness crab. One participant stated the agencies were established to support fishermen; instead, they believed the agencies are hurting and undermining fishermen by limiting fishing opportunities.

- Regarding relationships with other ports, participants believed Trinidad fishermen are open and willing to work with fishermen across California to meet shared goals, like donating money to the California Coast Crab Association (CCCA) to support the Dungeness crab fishery. One participant added that while fishermen may not always agree on things like price, they are aligned when it comes to the big picture of ensuring the longevity of the commercial fishing fleet.

Participant Quotes

"I put 'Very Weak' and I wish there was one [option] even lower than that, because I think [CDFW] talk the talk but, ultimately, I believe their goal is the demise of the [fishing] industry. And so I think 'Very Weak' doesn't even state what the real situation is: it's hostile."

"The agencies wouldn't blink an eye to shut our whole entire industry down. It's sad to feel like that, but I feel like that's the intention of some groups."

"When it comes to the long run, I feel like we're down to work with other ports. I think all of us put money into the CCCA so we could try and accomplish something to keep us crabbing [. . .] We might not see eye to eye on [some things], but when the big picture comes down to it [. . .] we all work together to make this industry work."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants highlighted several instances where managers could better support their fishing community, especially with regard to access and opportunity for the Dungeness crab fishery amid marine life entanglement issues.

- One participant stated fishermen need as much opportunity as possible to access marine resources in order to support their families and their businesses and to feed the people who depend on their seafood catch. They reiterated that CDFW, and the rules and regulations they implement (e.g., MPAs, the Risk Assessment and Mitigation Program), do more to harm than help fishermen.
 - Another participant shared that since they started fishing in the 1970s, they have not seen support for the fishing industry among agency staff.
- Several participants shared the belief that fisheries management in California is driven by politics rather than science, especially with regard to marine life entanglements in Dungeness crab gear. One participant recounted an instance during the October 2020 Dungeness Crab Task Force (DCTF) meeting when they heard a representative from CDFW indicate that crabbing restrictions will not be lifted even if whales are delisted from the California list of endangered or

threatened species. With responses like this coming from CDFW, participants believed there is not much hope for the future of the commercial Dungeness crab industry in California.

- One participant perceived CDFW's response to the marine life entanglement issue as an act of betrayal toward fishermen. They believed the department's message to fishermen changes from meeting to meeting. They had a deeply emotional response at this point during the focus group because they stated CDFW's decisions affect whether they have enough fishing opportunity to provide a home and food for their children.
- One participant recalled CDFW staff assuring fishermen that they were going to rely on the California Dungeness Crab Fishing Gear Working Group's (the Working Group) recommendations regarding marine life entanglements, but that this has not happened. They added that participation in the Working Group is a waste of members' time if CDFW is not going to consider what they have to say. Additionally, another participant added that agency staff continue to earn an income even as they make decisions that affect whether fishermen are able to make a living.
- One participant believed CDFW does not want fishermen on the ocean, and questioned whether this is a result of CDFW's support for offshore wind energy development.

Participant Quotes

"As a community and as a fishery, the whole bunch of us, we need all the opportunity we can get to go fishing. We need access to the ocean. We don't need more MPAs. We don't need any of that. We don't need more restrictions. We need access and opportunity to feed our families."

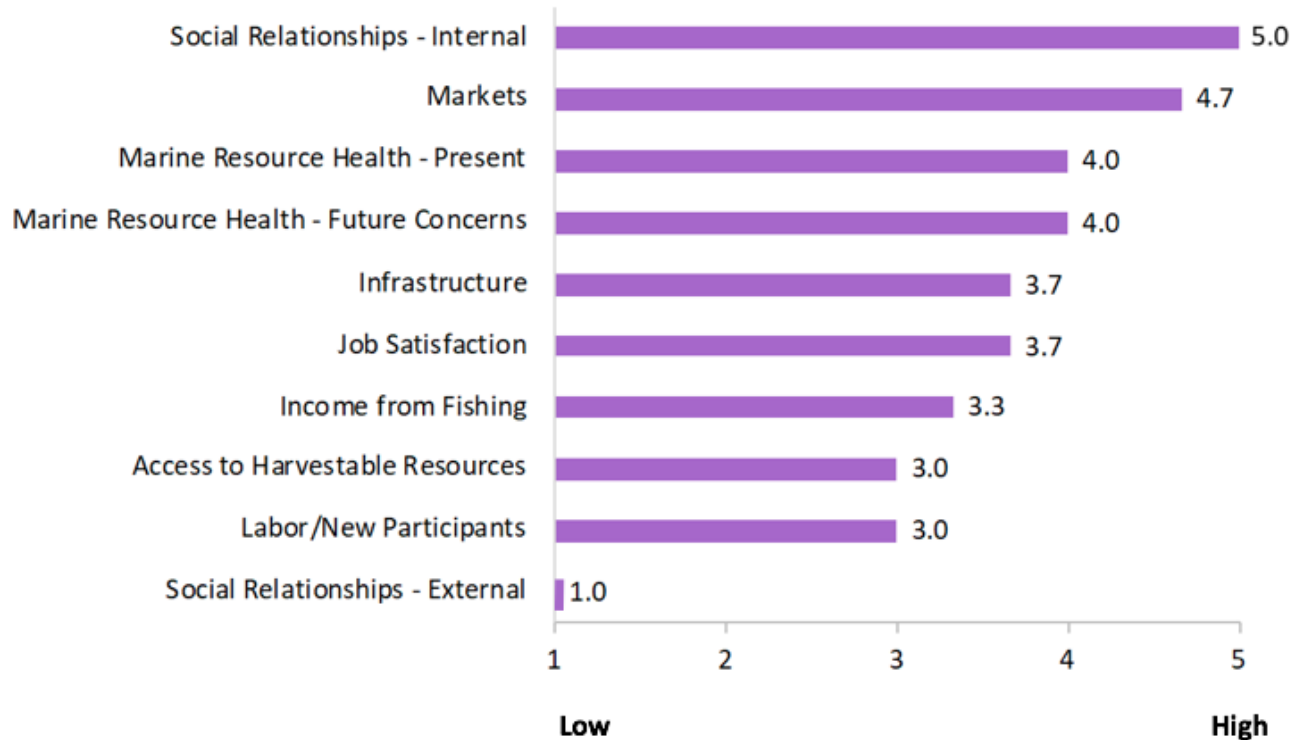
"[Management] hasn't done anything to support us since I started in 1979, and that was the start of all this garbage. I only heard about the golden years from the oldtimers."

"[CDFW said] they will not allow whale entanglements [despite whale protection status]. We're being ruled by politics, and that's not going to work, that never does work. What's science when it doesn't benefit your agenda? And that's what's going on."

"I feel like we were betrayed, like how come they never filed for that take permit five years ago when they wanted to? [CDFW staff] come to our meetings in Trinidad and tell us something and then it changes every time there's a new meeting... my heart's pounding. My gut's turning. This is why I worry about my family because they don't care. They completely shut us down [and are] not going to care about my kids not having a home and food. Nobody wants to see a whale get hurt. Nobody. I don't. My kids don't. I never have, personally, in my whole entire career. So when I hear about it, it's like I'm reading it out of a book."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

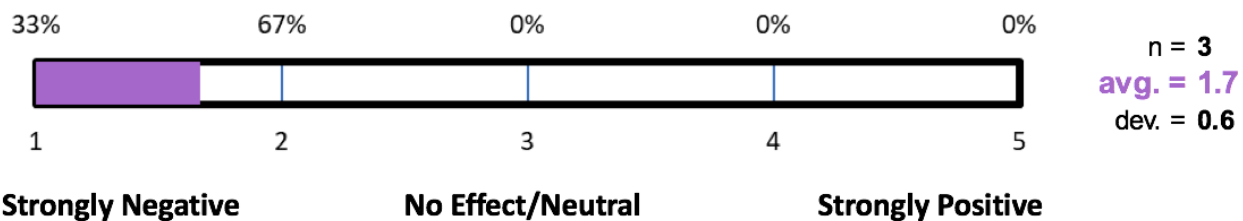
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Responses regarding the effect that the MPA network has had on marine resource health in the Trinidad area landed between negative and strongly negative, although one participant stated it is difficult to say how MPAs have affected marine resources since fishermen are not allowed inside the closures.

- One participant stated they have not noticed a difference in Dungeness crab fishing as a result of the MPAs, particularly along MPA boundaries. They explained the MPAs have only restricted

areas available for fishing, which has resulted in concentrated lines of gear directly outside the MPAs. Another participant added they have not witnessed a spillover effect in which abundance inside MPAs moves outside the MPAs.

- One participant believed the MPAs have resulted in a decrease in resource abundance. They explained that harvesting the resource encourages reproduction, contributing to resource abundance overall, but because MPAs restrict fishermen's ability to access and harvest the resource, the MPAs encourage resources within the closures to grow old without stimulating new growth.
 - Another participant indicated that restricting fishing activity leads to an imbalance in marine ecosystems because humans are part of the marine environment and have been for hundreds, even thousands, of years, especially Native Nations.

Participant Quotes

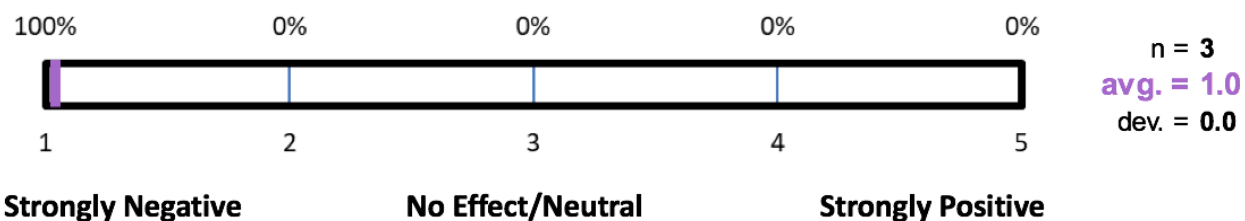
"You ask us what's going on in the MPAs... we can't fish in MPAs. How are we supposed to really give you a straight up answer?"

"Crabbing, I don't think is any different. I think [MPAs are] just restricting our area of fishing. It's not like it's 'oh, so much better right at the line.' I don't think that at all. That's just as far as you can go. So there's a line of crab pots there, but in my eyes, [crab is] not so abundant that it's moved outside the MPA lines."

"[Resources are] probably less abundant now because, my experience is when you harvest nature, it encourages nature to reproduce. When you leave it alone, it just encourages stuff to grow old, and so there is probably less than there is more. [Like when] somebody doesn't cut their grass, it just kind of grows tall and stops growing. You cut your grass, you get a healthy lawn. Harvesting helps nature. You don't overharvest, I'm not in any way arguing that, but you have to harvest. We are part of the system of nature. When you take the human element out of it, it's not natural anymore."

"There's stories of the Yurok People [taking canoes out to] Reading Rock to fish and to harvest sea life [. . .] So that place has been fished for hundreds and hundreds and thousands of years... until just recently."

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Strongly Negative

No Effect/Neutral

Strongly Positive

Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* on page 17 which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall *What other types of effects or impacts have fishermen from your port experienced from MPA implementation?*

Discussion Summary Participants shared MPAs are just one of many factors that have affected Trinidad fishermen's ability to earn an income from fishing. They reported Dungeness crab is the primary fishery in Trinidad because other fisheries are not viable as a result of management actions that restrict access to marine resources, like MPAs and the Klamath Management Zone (KMZ). However, due to issues with marine life entanglement in Dungeness crab gear, coupled with MPAs, participants fear crabbing may also become infeasible. Participants reported fishermen have experienced additional impacts from MPA implementation, including a loss in their ability to access fishing grounds which also leads to difficulty engaging in a diversity of fisheries.

- Participants believed MPAs are designed to put fishermen, especially those who primarily target Dungeness crab, out of business. They explained fishermen are not allowed to access historically important fishing grounds, resulting in a buildup of gear outside the MPAs in a smaller area, which increases the risk of marine life entanglements. They stated increases in entanglements could result in more restrictions on Dungeness crab fishermen, potentially shutting them down completely.
- One participant recounted how they used to possess several fishing permits and fished throughout California, but when the MPAs were implemented, they had to sell their permits because they could no longer fish in their historical fishing grounds or make up for this loss of fishing area elsewhere due to MPA presence throughout California. They added that this loss almost bankrupted them. Another participant stated other fishermen have experienced similar financial disasters.
- Several participants reported increased crowding and competition in the Trinidad area between local fishermen and fishermen from other areas who have been displaced from their historical fishing grounds as a result of MPAs in other areas.
- One participant shared a time when they were able to remain profitable when decreasing their live fish catch from upwards of 1,000 pounds daily down to about 100 pounds a day when the market was doing well and prices were very high. However, after the MPAs were implemented, it was more difficult to catch the 100 pounds per day that were needed to support their livelihood because they could not access fishing areas that made these circumstances possible.
- One participant indicated MPAs, among other factors, have made participation in the fishing industry more difficult, particularly for crew members for whom captains/boat owners cannot provide steady work or pay because of their inability to engage in a diversity of fisheries throughout the year as a result of management restrictions like MPAs.

Participant Quotes

"They [CDFW] yanked the rug from under us on the other species. We have nothing. We have nothing left that we can fish for viably, other than crab, because of the MPAs... and other things. It's not just the MPAs, [it's also] the KMZ. Now that they've got everything out, it's crab's turn - that's the only viable thing, and now guess what? Crab is going to go away. Now, [MPAs are] having negative impacts on crabbing. If you don't think that they've got it in for us, you're not reading your crystal ball."

"I would argue that the MPAs, in the long run, are going to help shut us down quicker because here's the deal: we can't put crab pots in there anymore - I think there's probably room to put 5,000 crab pots in that [MPA]. And now that you can't put 5,000 crab pots in that area, they're getting bunched up in another area. And so if you're worried about whales getting tangled up, the MPA is creating more of a chance of a whale getting tangled up because you can't [spread gear by fishing in the MPA]. So gear is becoming thicker in another area... it's designed as another arrow in their quiver to put us out of business."

"When the MPAs became invented, I had [. . .] rockfish catching permits and I would fish in the Channel Islands and in San Diego and here [in Trinidad] and all over the place. And then the MPAs came about... to make a long story short, I ended up having to sell my permits because all that MPA encroachment was right where I was fishing. I couldn't go elsewhere."

"[MPAs] reduce the amount of fishing grounds that we have - they push our competition down from the north, down on top of us and limit us to a smaller piece of ocean."

"This is why we only have employees for a couple of months of the year because the other fisheries have been shut down to us. If we could make money doing [other fisheries], we might be able to keep employees on for longer."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants identified several MPAs where fishermen historically fished or used for anchorage but are no longer allowed to access; most of these MPAs were closest to the port of Trinidad, near Reading Rock. While viewing a map of the MPA network, one participant noted several areas across the California coast where they have fished throughout their career as a fisherman, most of which have since been designated as MPAs. They emphasized that Trinidad fishermen fish the full extent of the California coast and are likely to be affected by MPAs throughout the state, not just MPAs that are close to their port. Another participant expressed concerns regarding California's 30x30 initiative to preserve 30 percent of the state's oceans. They explained that, if approved, it would have significantly negative effects on fishermen given the impacts they have already experienced from the MPA network.

- **Reading Rock State Marine Conservation Area (SMCA) and Reading Rock State Marine Reserve (SMR):** Several participants stated these areas were among the best fishing spots for Trinidad fishermen before they were designated as MPAs.
 - One participant reported the waters around Reading Rock housed the healthiest and most abundant resources near Trinidad, adding that fishermen would often meet their catch limits fishing this area alone.
 - Another participant stated fishermen can no longer harvest Dungeness crab or lingcod in the Reading Rock SMR; they used to troll for lingcod here around the time the salmon season closed, before transitioning to crab.
- **Samoa SMCA:** One participant noted how fishermen are still allowed - and love - to fish for

Dungeness crab here. They added that if fishermen were ever restricted from crabbing in this MPA, it would be detrimental to their businesses.

- *South Cape Mendocino SMR*: One participant stated this MPA covers what were once important rock cod fishing grounds.
- *Stewarts Point SMR*: One participant commented that salmon fishermen used to anchor here in bad weather, but they are not allowed to anymore.

Participant Quotes

"[Reading Rock SMCA and SMR] were where the abundance of bottomfish was, and people would go there and just slay huge lingcods and [the biggest] fish you'd never seen [. . .] Before it was an MPA, it was the hottest fishing, the best fishing. It was so healthy and abundant and vibrant [. . .] now it reduces our territory to crab fish."

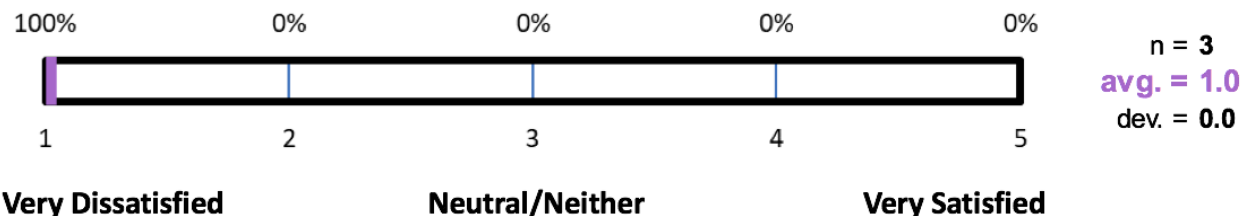
"We used to go up to Reading Rock and troll for lingcod every September. You would get those big monsters [. . .] that was a nice little way to finish out the season before you got ready for crab. First, you'd go up there and catch salmon and then go up there and catch lingcod... that's gone. That's why all we got left is crab."

"[The Samoa SMCA is] prime crabbing grounds. They let us crab there, but if they ever changed that... oh boy, would that be a big deal. All of us love to fish there. If they ever restricted that to crab [and said] 'no crab gear'... if they want to hurry up and put us out of business, just tell us we can't fish there either."

"Stewarts Point [SMR], that's a beautiful place to anchor as a salmon fisherman, but now you can't anchor there, even if the wind's blowing and the ocean's rough. [. . .] They would give you a ticket if your life was in danger."

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Very Dissatisfied

Neutral/Neither

Very Satisfied

Discussion Summary Participants indicated communication of current MPA management decisions and involvement of fishermen in management is nonexistent. Several participants believed fishermen were manipulated during the MPA implementation process and suggested the extent to which fishermen were involved served only to check a box for stakeholder involvement on behalf of the agencies.

- One participant shared how they received many communications during the MPA implementation process asking fishermen to disclose areas where they fished, presumably so

that their fishing grounds would not be designated as MPAs. They reported MPAs ended up being placed in these areas even though fishermen were told this would not happen.

- Another participant remembered how they and other fishing industry representatives were given an all expenses paid trip to a several day MPA planning event, funded by an environmental NGO. They believed the NGO was willing to cover these expenses to show the extent to which stakeholders were involved in the MPA process. To the participant, it felt more like the NGO was going through the motions rather than genuinely involving fishermen and caring about their concerns related to the MPAs.

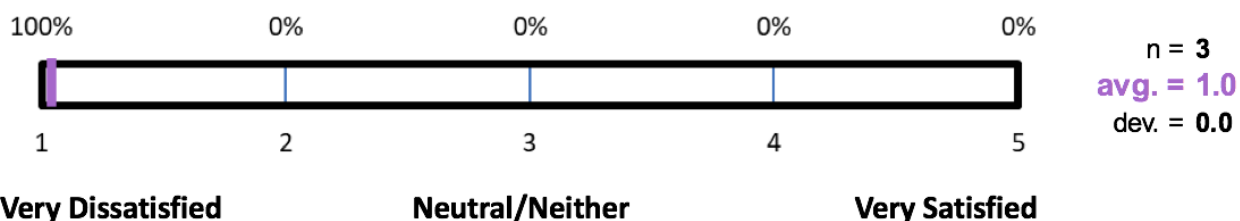
Participant Quotes

"I haven't heard of any [MPA] management measures."

"I got endless notifications in the mail [where] they wanted to know where we fished so that they would not impact where we fished. And here's what they did for us: they made MPAs where we fished because we told them where we fished... they said that they were going to use that information to not impact us, and that's where the MPAs ended up. Isn't that awesome? Imagine trying to raise your family with that kind of situation going on."

"Many years ago, when the MPAs were developing, this lady came into my business and said, 'I'm from an environmental group and I want to pay for you and [name redacted] to go up to the Portland Hilton Hotel for a three day seminar [with] all the industry players to talk about the implementation of MPAs.' So they paid our way up there, they put us into this really nice hotel, they paid for all our meals, they paid for room service, they paid for everything. And there were about three hundred of us. And I'm looking around like 'oh my God, this costs a lot of money.' [. . .] What we finally realized was part of the MPA rule said that they had to collaborate with industry stakeholders. So what they were doing is they were going to go to Congress [and say] 'look at all this money we spent collaborating with them.' They used us, and they made it look really good because they spent a lot of money doing it. Excuse me for being cynical, but that's my story. [. . .] They didn't just study resources, they studied psychology."

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants reported they have not seen or heard of MPA monitoring being done near Trinidad. They emphasized that fishermen would know if studies were being conducted because Trinidad is a small, rural community where people are usually aware of activity that occurs around the port, like that related to MPA monitoring.

- One participant stated fishermen will occasionally see research vessels pass by but do not believe they are related to MPA monitoring. Another participant reported that when research vessels are in the area, they are often disrespectful to local fishermen. They recounted an

incident when a research vessel interfered with their crab gear, resulting in them having to purchase replacement CDFW-issued buoy tags. They believed the research vessel also harmed the species they were studying and stated that they heard of similar occurrences between researchers and fishermen in other ports.

- One participant mentioned they were open to being hired to contribute to MPA monitoring efforts.

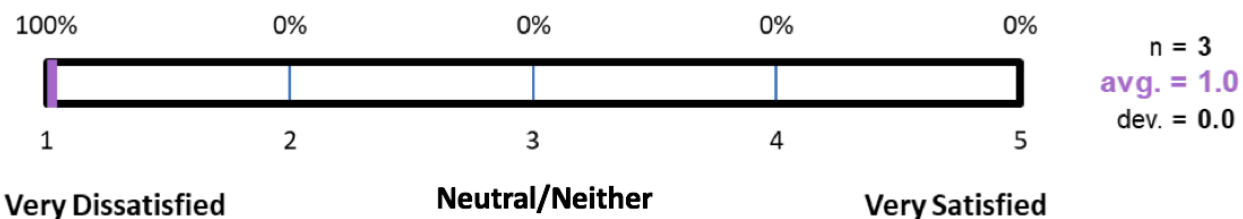
Participant Quotes

“We live in a little neighborhood, that's our world. And if there's monitoring, we would know and we don't see it. I don't think they're sneaking out there on the roadways and doing some monitoring.”

“You'll see the HSU boat come through every once in a while, but I don't know what they're doing. [. . .] A couple years ago, we saw a giant research boat [from] NOAA come through [. . .] and it was dragging a big net studying larval crab, killing all our larval crab. [. . .] I called the Department of Fish and [Wildlife] and told them that I was losing crab gear because they were towing right through where I had crab gear. And as a result I had to get some replacement [CDFW-issued buoy] tags because they tore up my gear and ripped a lot of tags off. In other words, they're not very nice to us when they do come researching and monitoring... they're very destructive.”

“You're asking us if the fish is getting better or worse [because of the MPAs]... well, how are we supposed to know? There should be some kind of studies done on that. [. . .] Put me on that salary, I'll do this work for you.”

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants expressed dissatisfaction with MPA enforcement, stating that they will occasionally see CDFW or the US Coast Guard pass by, perhaps on their way to the Reading Rock SMR and SMCA, but it is hard to say for sure. They indicated communication of activities related to MPA enforcement is poor.

- One participant stated that even though MPA regulations restrict fishing activity in the closures, they still see people fishing in the MPAs. They believed this lack of enforcement is unfair to the fishermen who follow the rules.

Participant Quotes

“[You] might see [the California Department of] Fish and Wildlife fly up there in a little dinghy once in a while. [When] they go by me, I might be crab fishing up off of Big Lagoon or

something, and I'll see a little grey boat go flying by. My guess is they're going to check on Reading Rock, but it's hard to say because I'm not intending to go [to that area].”

“They made a law that you can't be in [the MPAs], but they really don't enforce it. So the cheaters get to cheat the law while the law abiding guys don't. The whole thing's a joke.”

19. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants communicated suggestions and concerns they would like managers to consider regarding MPAs, including using MPAs to house future ocean development and requesting management agencies attempt to understand the financial implications of MPAs for fishermen who rely on available and accessible ocean areas to support their livelihoods.

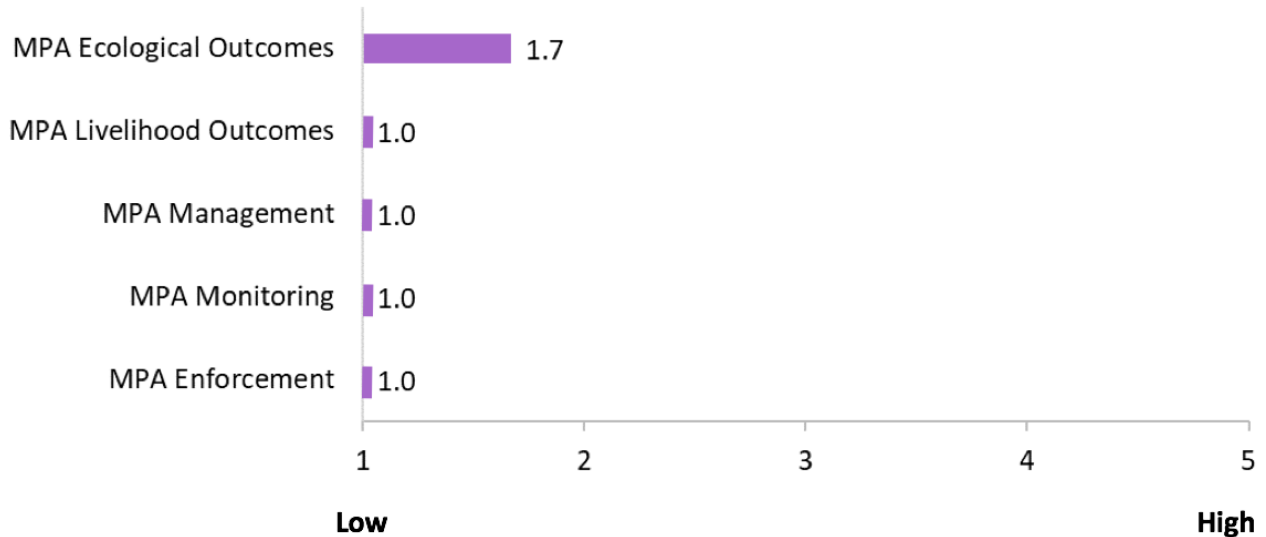
- Several participants suggested MPAs, particularly SMRs where all fishing activity is limited, be considered for projects like offshore wind and aquaculture. Rather than making more areas inaccessible to fishermen, they believed future ocean-based activities should be developed where fishermen are already not allowed to fish.
- One participant asked decision-makers to consider the financial toll MPAs have had on fishermen. They stated that unlike office workers, fishermen have overhead expenses that add up quickly, including costs associated with boats, gear, bait, and crew, all of which they must cover before they can go fishing and make an income. They indicated MPAs have led to an overall increase in fishermen's operating costs.

Participant Quotes

“Put the wind farms in places we're not allowed anyway [like SMRs]... and the fish farms too. If they want to do something with the ocean, do it with what they've stolen [via MPAs].”

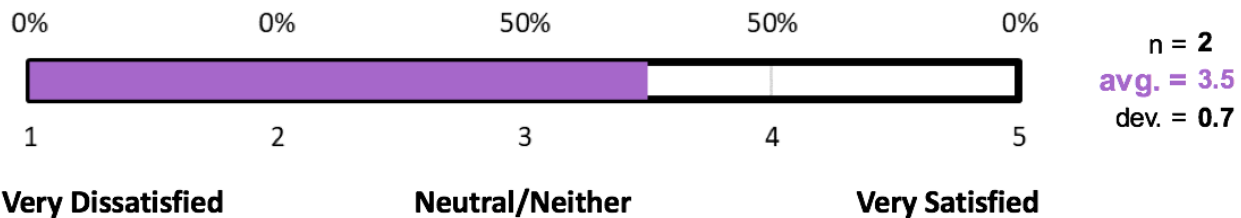
“You [have to] understand that we have to furnish everything: we have to furnish our boats, we have to furnish our own crab pots, we have to furnish bait, we have to furnish our own hired crew, we have to furnish our own leased out spots to put the crab gear, we have to furnish storage units for rope and line. We have to furnish all those expenses. That's before we furnish our trucks and our trailers and our semi-trucks that go up and down [the coast] because maybe we fish south or north, and then sometimes we got to fly boats and crew back and forth. That's before we get started fishing. That's before we've made any money. And so it's different than a politician or a lawyer - they might have to rent an office building and buy a ream of paper... we're not like that.”

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



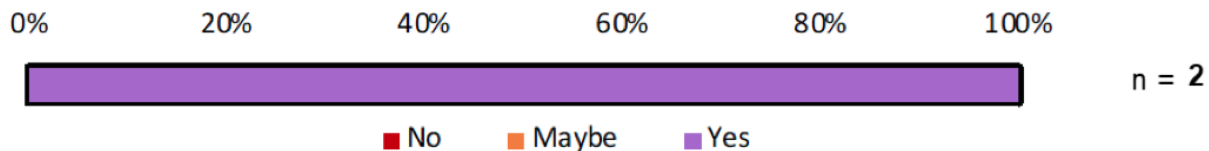
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the purple bar indicates the percent of participants who responded 'Yes' to question 20b. If participants responded 'No' or 'Maybe,' a red or orange bar would appear, respectively.)



20c. Process Open-ended Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?

Discussion Summary Participants expressed appreciation for the opportunity to participate in the focus group discussion and contribute their perspectives but were doubtful that managers would

consider or apply what they shared to future management decisions. They believed this project, being the only one related to socioeconomic monitoring of the MPA network, is another box-checking exercise for stakeholder engagement in MPA management.

- One participant did not believe much will come out of this focus group discussion since participants were not asked to vote on any initiatives like in other meetings they are a part of, like the DCTF. They shared their reason for joining this conversation was to make sure others did not misrepresent fishermen's experiences and concerns, though they felt focus group participants were representative of the Trinidad fishing community. They added that the compensation they received for their participation in the focus group helped make the discussion feel less burdensome.

Participant Quotes

"I'm [here] because all you can do is hope at this point. I'll do whatever I can... what else can you do? So I appreciate your guys' effort and hopefully it's all for something good. So I just want to say thank you for all that [your Project Team does]."

"It always feels good to vent, but on the other hand, is this really going to do us any good? It was a pleasant experience talking to everybody tonight, but I've seen this [same thing] happen in my 40 plus years of experience. None of this ever comes to much. [. . .] I just can't ever see anything happening [because of what we shared]. [With] the DCTF, we actually do implement some stuff, but we're not going to be implementing anything here. [. . .] You took the sting out of it by paying us. [. . .] We're being railroaded by the powers that be... [they're putting] us through this dog and pony show to dot the I's and cross the T's."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network *Members of Eureka's Commercial Fishing Community*

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Eureka

Date: Thursday, October 8, 2020

Participants: Ken Bates, Deenie Davis, Paddy Davis, Vivian Helliwell, Harrison Ibach, Brenden Semmes, Jeff Stackhouse, one anonymous participant

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

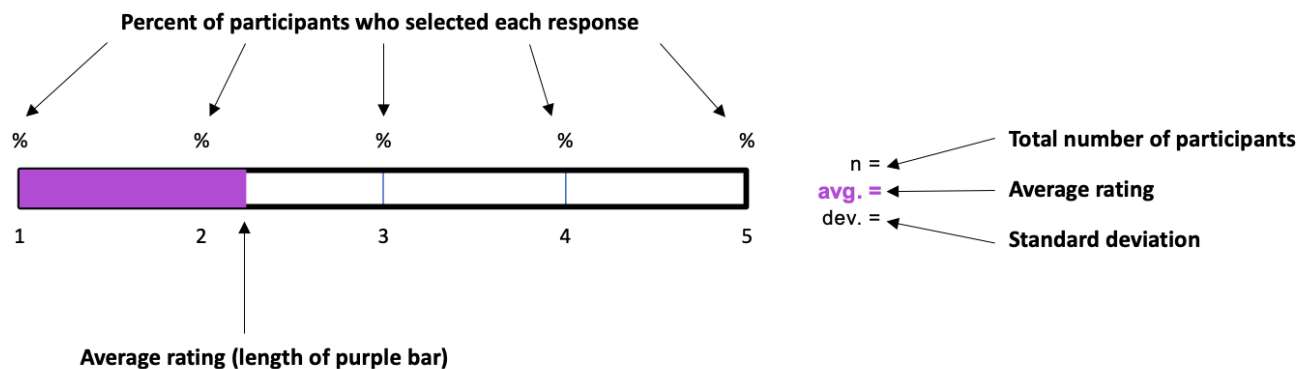
Overview

On October 8, 2020, eight members of Eureka's commercial fishing community participated in the seventh focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 15 and 23 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

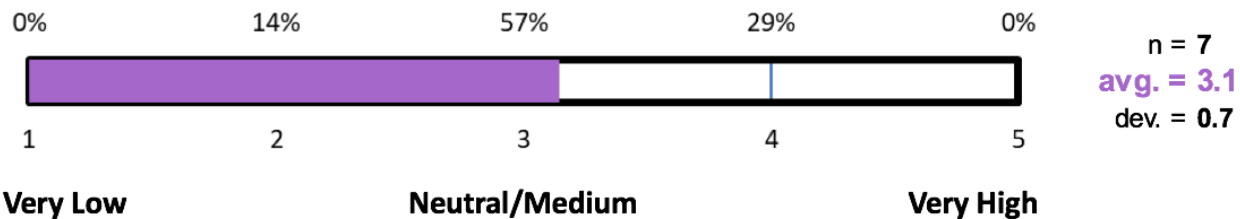
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2013–2017, North Coast](#)

Our Project Team would like to express our appreciation to the eight members of the Eureka fishing community—Ken Bates, Deenie Davis, Paddy Davis, Vivian Helliwell, Harrison Ibach, Brenden Semmes, Jeff Stackhouse, and one anonymous participant—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants shared it was difficult to rate/score this question accurately when considering the three main fisheries that Eureka fishermen rely on. They expressed the belief that an average score would not appropriately convey the variability in marine resource health, for example participants felt that some fisheries were doing well (e.g., Dungeness crab) and others were doing very poorly (e.g., salmon).

- Several participants expressed concern over the current health and sustainability of the salmon resource due to very poor riparian habitat conditions and water management.
- One participant stated that Dungeness crab resource sustainability in Eureka is overall doing well due to careful management (i.e., commercial fishermen can harvest only certain sized mature males).
- One participant said that the rockfish fishery has recovered since earlier times, which they believe is due to conservative management.
- One participant expressed frustration that California's lack of real-time monitoring of marine resource populations makes it impossible to know the status of marine resources. In comparing California's monitoring efforts with Alaska's, participants believed that Alaska has a more robust monitoring system that provides precise information about where fish resources are located in a given time, and managers convey this information to fishermen in real-time.

Participant Quotes

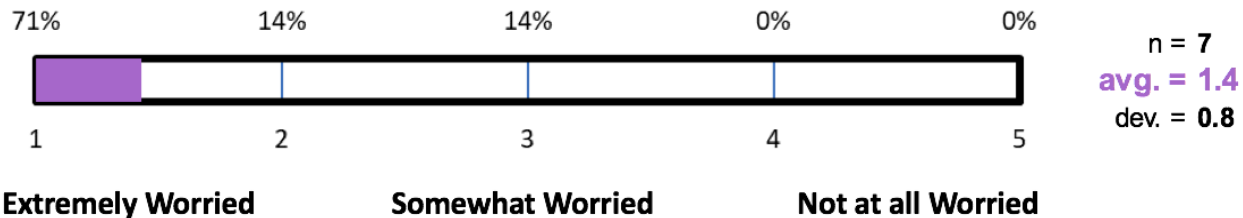
"The salmon are in trouble in their riverine and estuarine habitat, and the whole effort to put a whole lot of money into MPAs just doesn't deal with the salmon problem, and the state has allowed [salmon] to go down. [The state was] supposed to double the salmon populations by 2000; they crashed instead. There's a lack of will for enforcement of water law in the rivers."

"I think we got lucky with the Dungeness crab fishery just in how we've managed it throughout time before, just where, you know, we only harvest certain size male crabs, leave short males, leave females. So overall sustainability, good."

"California ocean fisheries are very conservatively managed and [there has been] much recovery of rockfish over a long time."

"If you look at Alaska, Alaska is real time management. You know, fish show up at a particular area, salmon or whatever, and they've got someone doing the monitoring. They can tell you whether you can fish there or not, those kind of things. And we don't have that here. So our management is miles and miles and miles behind abundance or lack of abundance for a given species."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants identified changing ocean conditions as a big concern regarding the future health of Eureka's fishery resources. They discussed the future sustainability of resources within the context of regulation, and emphasized that too much regulation would negatively impact the future of the industry.

- Several participants were hopeful for the future sustainability of most West Coast fisheries, and expressed doubt specifically about the sustainability of salmon, groundfish, and Dungeness crab, which they believe are over regulated.
- Several participants expressed concern about the impacts of ocean acidification, algal blooms, and domoic acid on the future health of marine resources.
- One participant described a concerning issue in Eureka where artisanal/small scale fishing operations are being replaced by larger, corporate operations. They worry corporate fishing operations will cause more environmental degradation than small scale fishing; similar to the pattern seen in farming, where family farming operations have been replaced by corporate farming operations resulting in environmental damage.
- One participant expressed concern over the future trajectory of the Dungeness crab fishery as a whole, but did not share specific concerns about the sustainability of the resource.

Participant Quotes

"Ocean acidification is obviously a major concern. I mean, a lot of it is the future health and sustainability of our other fisheries, besides salmon, groundfish and crab, in general are somewhat promising, I believe, just because of how strict we are with so many restrictions these days. I mean, we have the most sustainable fisheries in the world here on the West Coast and especially in California. And that's just because of how highly regulated they are."

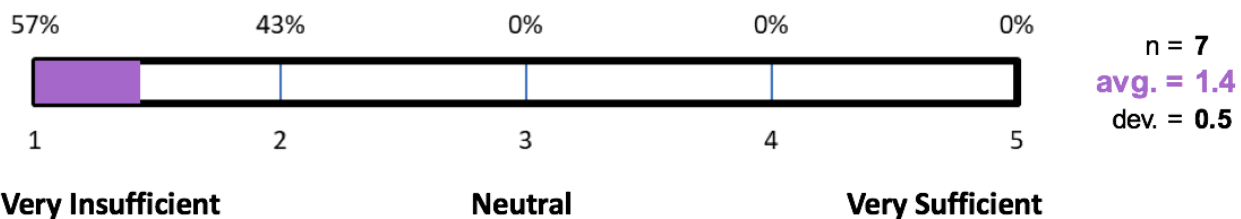
"I talk to people sometimes about ... comparing what's going on in the fisheries with what went on with farming, and farming got so overregulated that it forced out, you know, the vast majority of the family farmers. That wasn't the end of farming, [...] the vast amount of farming in this country now is corporate farming. And all those people who pushed these regulations, because of concerns and things about the environment, once the corporations took over, that

was out the window because [the corporations] have all the power is all these places in the country that just have huge environmental damage from these corporate farms, and nobody can do anything about it.”

“My big thing is crab. And we all know how that's been beaten up the last few years. I'm very concerned about it, where it's going.”

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants shared that access to fishing grounds is very limited as a result of area closures, limited entry programs, and gear restrictions. Access limitations are compounded by challenging weather on the North Coast, which further restricts fishing opportunities for small boats, and other environmental conditions, such as whale entanglements and domoic acid issues. One participant expressed concerns about future access restrictions.

- One participant stated that half or more of the state waters off Eureka have restricted access for most fisheries due to area closures including MPAs and Rockfish Conservation Areas (RCAs), and other types of area restrictions.
- Several participants expressed frustration about restrictions that have historically impacted small scale fishing operations, while allowing access for larger operations (e.g., trawl fishing). One fisherman described how prohibitively expensive limited entry permits are. They also shared that the squid management plan “wiped out” all the small scale squid fishermen in California, and the herring limited entry program was very restrictive due to minimal permit availability and gear limitations.
- Several participants shared that there is no longer any meaningful access to salmon fishing for Eureka commercial fishermen, due to population declines resulting from habitat degradation (e.g., dams).
- One participant discussed concerns about potential future restrictions (e.g., Assembly Bill (AB) 3030 (2019-2020)) on fishing that would limit access and impact the viability of their fishing businesses.

Participant Quotes

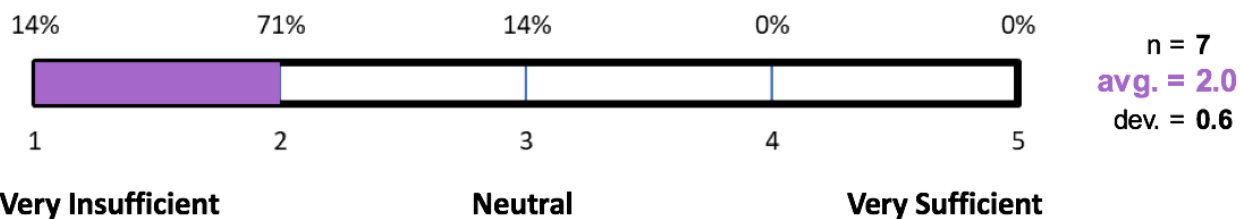
“You can't really have a discussion about access and just talk about MPAs -- they're just a part of a network of so many closures and they come in all different kinds of acronyms.”

"We're down to three fisheries [in Eureka] and it's groundfish, it's crabs and our tiny scrap of salmon. That's it. The other [fisheries] that we could access here, we do not have access to."

"I'm extremely worried for younger fishermen because we have gone to great lengths to restrict access at any kind of artisanal or small level throughout the state. Basically, for the last 30 years or 40 years, we have pushed and pushed and pushed for bigger boats, bigger permits and more industrialized fishing, which takes away from all the little scraps and pieces and all these coastal communities."

"We would not be able to survive with any more restricted access... AB 3030 is a direct threat specifically to, I mean, the entire state, but also up here. If we're to take away more grounds from state waters, you could pretty much stick a fork in it. That's a wrap. If we want good sustainable fisheries to survive, we cannot lose any more access."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants expressed difficulties maintaining the financial viability of their fishing operations due to restricted access to fishing grounds, high costs of running their fishing businesses, and lack of government support programs.

- Several participants described the challenges of keeping up with the costs of running their fishing business and earning a living, citing the high cost of permits and boat operations.
- One participant recalled many fishermen in Eureka's salmon fleet losing equity of their boats in the 1990s, and leaving the fishing industry for other jobs.
- Several participants shared that they have diversified income sources by taking on other jobs to support their fishing businesses / livelihoods. One fisherman said that they tried getting another job to supplement their income, but even that decent wage paying job could not support their fishing business due to high permit costs and boat expenses.
- One participant highlighted the discrepancies between government financial support for agriculture versus commercial fishing. They explained that there are federal and state government incentives (ie., subsidies and loans) for farmers, but none for commercial fishermen. Another fisherman agreed and explained that government support for younger fishermen and new entrants to the fishing industry would be helpful. Additionally, this fisherman recalled the original implementation of the Magnuson-Stevens Act when government support programs were available (i.e, the Capital Construction Fund Program and the Federal Ship Financing Program) which led to the overcapitalization of the trawl fleet, and resulted in reduction of government support.

Participant Quotes

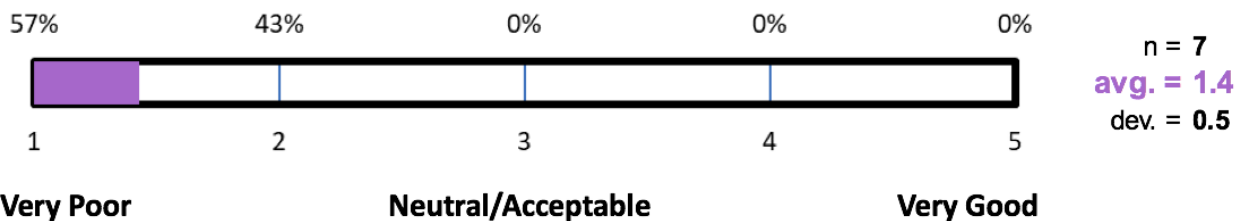
"We're kind of jaded at this point. We've had so much removed from us...all we can be is worried about our future... We need every little piece of [fishing grounds] to cobble together a living as fisherman."

"I'm still a general contractor...I try to fish for a living, but I'm pretty diversified. I [also] charter fish, and that's the bulk of my income, probably three months a year. And then I commercial fishing year round. And that kind of floats the boat the rest of the year there."

"A crab permit in this state cost me a thousand dollars more than my house was to buy...you need to make hundreds of thousands of dollars to make these payments and to keep up just to squeeze a little tiny income out of it."

"I'm well in tune with the agriculture commodities and government incentives and everything else that are thrown at beginning farmers and every other facet of food production in our nation. And yet, if you want to become a commercial fisherman and produce food... to be consumed by Americans in our nation, there are no beginning fisherman loans, there's no government incentives, there's no subsidies to help you get through the regulatory hurdles and the cost at the state or the federal level. Like if you want to be a dairyman or grow carrots or anything else, you can go to an NRCS [Natural Resources Conservation Service office], you can go to FSA [Farm Service Agency office]. There's government handouts everywhere to help you buy tractors, to help you buy equipment, to help you buy land."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants explained that Eureka's markets have declined in quantity and quality compared to earlier times. Despite the availability of some markets for fishermen to sell their catch, participants said that they believe buyers offer much lower prices than the catch is worth. Eureka fishermen have been turning to alternative markets such as small fish companies or direct marketing their catch themselves, rather than relying on the few traditional fish companies in the Eureka area who they believe undervalue the product.

- One participant described how markets have changed for Eureka fishermen since the mid-1990s when there were a dozen fish buyers who would all compete to buy salmon, but since the decline of Eureka's salmon fishery, these buyers went out of business, and now there is only one primary buyer that pays low prices.
- One participant explained that to work around the dearth of good quality buyers, they became a fish buyer themselves. They took out a line of credit, bought a fish pump, and contracted out processing operations. This and other creative direct marketing techniques enabled this

fisherman to sell their product when no buyers were available, and to get better prices when available buyers were offering low prices.

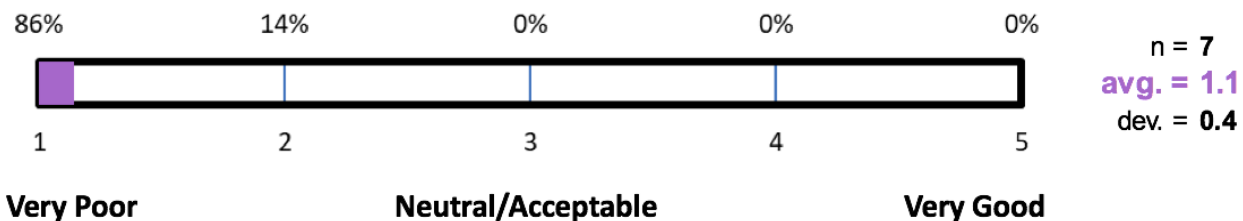
- Several participants described their direct marketing efforts, including off-the-dock sales. While they have experienced some success with direct marketing, they said selling catch this way is very time and labor intensive.
- Several participants discussed the financial hardships that American export tariffs have created for their businesses, specifically for the Dungeness crab fishery. One participant noted a recent federal program for disaster relief for tariff impacts.

Participant Quotes

“I don't think a rockfish should be worth twenty five cents. We can get paid a heck of a lot more than that, but trying to find those markets is hard to do. And the same comes to crab as well...we have a lot of crab that comes into this port ... and the vast majority also has to succumb to what the bigger processors are willing to pay. And generally that is, you know, lower than what we possibly could get. So market availability is, I guess, there, but for a good, reasonable market? No, not really there.”

“We used to have a dozen fish buyers, processors who would compete with each other for our salmon, which was the big deal at the time, and that whole fishery went down and those companies closed. And now we have an oligarchy of mainly one large fish company and a couple of little small trucking buyers... They'll take your fish, but they give you a small price for it. And there's no competition to bring that price up, basically.”

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants described many infrastructure challenges in Eureka, including too few unloading docks, decaying dock infrastructure, a lack of cold storage capacity, limited ice facilities, and inadequate moorings, launching spaces, and docking spaces. One participant described a historical trend of the decline of Eureka’s fishing infrastructure and worried that proposed projects to develop offshore wind energy facilities and lay submarine cables will lead to further loss of fishing grounds in the future, continuing the decline of support for fishing infrastructure.

- One participant highlighted that freezer capacity has been a known food security shortfall throughout Humboldt County for many years, and that securing funding for cold storage facilities for fishermen continues to impede solutions for this county-wide issue.
- Several participants described the connection between the availability of markets and the state of infrastructure, whereby buyers require certain infrastructure that is lacking in Eureka for

buyers to conduct business (e.g., a live fish dock for unloading to live buyers, freezer storage, etc.), which has ultimately impacted Eureka fishermen's bottom line.

- One participant was concerned about loss of fishing grounds from the proposed offshore wind energy project for the Humboldt Coast by the Redwood Coast Energy Authority and other projects involving submarine cables. They worried that the loss of fishing grounds from these projects would result in further loss of fishing revenue, which is necessary to support port infrastructure for fishing.

Participant Quotes

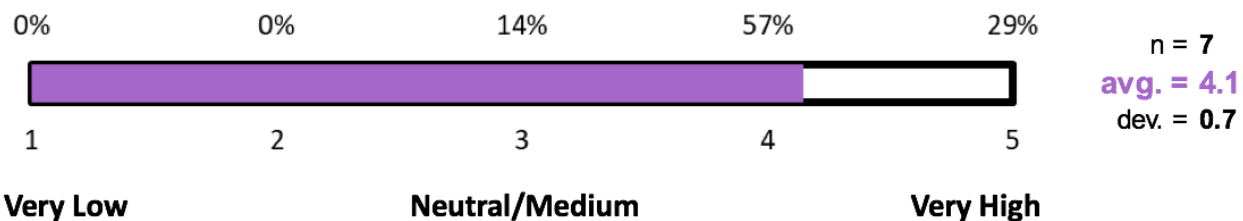
"In terms of infrastructure, freezer capacity is a well known food security shortfall for the entire county that has been identified for many years. But at the county level, securing funds, that has not been easy to build facilities to meet those needs. We have limited ice facilities, just one limited moorings, launchings, parking, at least for the mosquito fleet."

"I try and bring in the smaller, out of town, live buyers, but the problem with that is we don't really have any infrastructure to bring them to. We had a dock that was built in Eureka that was supposed to be on Fisherman's Terminal, a live fish dock for unloading to live buyers and stuff like that, and it's basically been hijacked and taken over by a couple of processors and they charge astronomical prices to the guys that are unloading there... so we've got to go to a dock on the other side of the bay, a redwood dock that we unload through and it's a total disaster. You're lucky to survive the walk out from the gate to the boat."

"Infrastructure has been a problem in Eureka since the Magnuson-Stevens Act went in. We have continued to lose infrastructure. We have lost it through waterfront planning and land use and zoning, a whole bunch of different things. It's complicated. It took the Humboldt Fishermen's Marketing Association...18 years of going to meetings and meetings and meetings to get Fisherman's Terminal funded and built...[and another] ten years doing the same thing...to figure out how to get cold storage here."

"The infrastructure is problematic because without the infrastructure, you can't have the fishing. And if you don't have the fishing, you can't have the [funding to support] infrastructure."

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port's fishing operations?*



Discussion Summary Participants shared that COVID-19 heavily impacted their fishing operations at several levels, including by closing markets completely, by removing demand when restaurants shut down, and by lowering prices to the point where it was not financially viable to fish. One participant

believed COVID-19 has made it easier for people to stay home and collect unemployment checks rather than work, which has reduced the potential labor force for crew members.

- Several participants described how their buyers closed down operations for a time due to COVID-19, leaving fishermen with no opportunity to sell their catch and thus putting them temporarily out of work. When the markets opened up again, participants said that the prices they were offered were very low, specifically for crab.
- One participant thought that COVID-19 had possibly slightly increased the demand for off the dock sales for them personally in Eureka, and said they heard similar stories of increased dock sales up and down the California coast and on the southern Oregon coast.

Participant Quotes

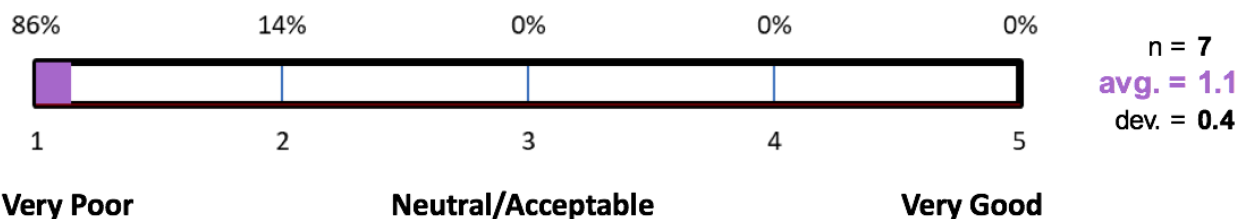
“COVID-19 has really affected me this year. Our markets have been very slow in Los Angeles, as far as the buyers I deal with all the time. The other thing is I was on track to go to Kodiak [Alaska] and fish crab this summer and we had a lot of our gear shipped to Seattle to go on a boat to get to Kodiak. And the price came in so low in Kodiak because of COVID-19, we had to pull the plug. So it's cost me probably three months.”

“[Due to COVID-19] we were looking at a situation where there was going to be no buyers for our seafood products. We were getting ready to go salmon fishing while the crab price was tanking and our buyers wouldn't even commit to buying one load. I finally left town and just said, ‘I'm coming down there to go fishin’ one way or the other. People got to eat. We're going to go to work.’...Fishermen are adaptive, that's what we have to do to survive... we were forced into it, basically.”

“I'm new to the whole off the dock sales thing...other fishermen in this port have many years worth of experience more than I do...I think that maybe the demand has always been there for getting your seafood off the dock and directly from the source [and] maybe COVID-19 has helped push that demand a little bit further and increased that demand maybe slightly.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Participants discussed challenges recruiting and retaining fishing industry participants, including potential fishing business owners and crew. One participant believed high costs to enter the industry are to blame for the decline in new entrants. Several participants

highlighted that the crew labor force in Eureka has declined so dramatically that finding quality deckhands is extremely difficult.

- One participant explained that the costs of entering the fishing industry have risen so significantly that potential entrants to the fishery can no longer expect to build enough capital for their own fishing businesses by crewing and working their way up the ranks from deckhands to fishing business/boat owners.
- One participant suggested that the labor force has moved from Eureka to Alaska, where there is more money being made. They cited delayed and shortened crab seasons (e.g., due to whale entanglements and domoic acid) as the reason deckhands are financially incentivized to find work elsewhere. One participant reflected that although much of the labor force has disappeared in the Eureka area, there are still some boats that are able to supply a good livelihood for crew because they work very hard around the clock, year round.
- One participant suggested that the crew labor force shortages were a result of the marijuana industry pulling labor away from the docks to process the marijuana harvest.
- One participant described their preference for working alone without crew, mostly due to the liabilities of employing crew, but also because of high expectations for a strong work ethic that they don't believe the current labor force could achieve.

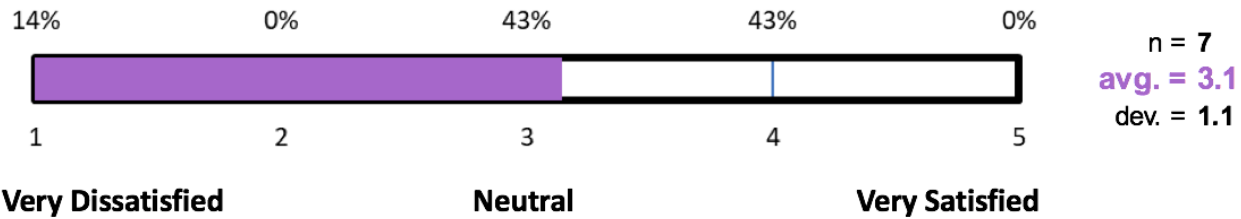
Participant Quotes

"One of the problems with recruitment is the cost to get into the industry is so high that you used to have crew members that looked to a future of moving up. You start as the bait person and then you work up and you run the block on the boat and then you maybe get to run the boat a little bit. And then all of a sudden you've made enough money in a season where you can put down on your own boat and your own permit. But because the costs of getting into the industry have gotten so high, I think that's part of the problem. You don't have good crew that wants to build up to getting their own vessels because the ceiling is just unobtainable."

"There's just no real crew left. They've gone and moved on to Alaska or somewhere where there's more money being made and we're left with the scraps down on this end. I mean, some of the guys make pretty damn good money real quick, but, crab season, we've lost three months off... since the whole whale situation and domoic acid and everything else. We see the difference in what we earn, it's huge...you can't blame that guys move on. So the labor end of it is terrible."

"I mean, obviously, to find work is damn near impossible anymore these days. I believe that historically people were actually coming down to the docks really looking for jobs and whatnot... In our local area, obviously, the weed industry is pretty big. I think that kind of sucked a lot of people away from the fishing industry, they'd rather hang out up in the hills and do whatever they do... trim weed or whatever."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Participants expressed general satisfaction with their jobs due to their love for the ocean and their passion for fishing, despite the demanding work and other negatives.

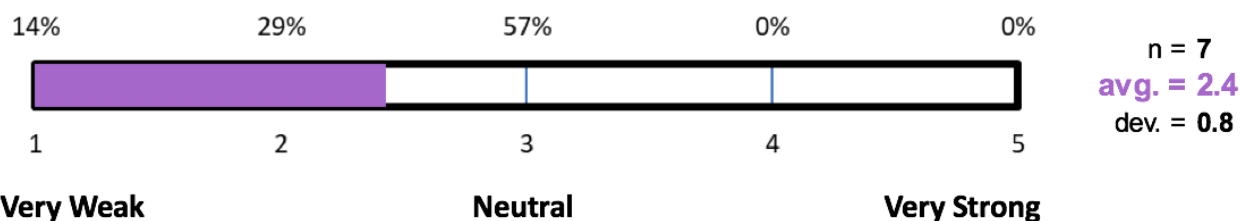
- Several participants acknowledged that working as a commercial fisherman is hard work, and not ideal for everyone.

Participant Quotes

"All of us that are fishing, that have stuck with it, with it. We're doing it because we really like it. It's probably a sickness. I'm at the point now I'm as enthusiastic about fishing right now as I was when I was a kid. And so, you know, fishermen that have enthusiasm for what they do...Everybody on this call will put up with stuff that no other businessman would put up in order to do what they're doing."

"As far as job satisfaction, you really have [to] love fishing. Some people do. Working out on the ocean is a fabulous experience, if you like physical work. It is a lot of work. Just standing up on a boat, anchoring up a little coves, it's worth a hard day of fishing."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants' opinions on social relationships within their port were diverse. Some participants believed relationships to be very weak citing the dramatic decline at port association meetings over the last 40 years. Others expressed appreciation for their fellow fishermen and the Eureka commercial fishing community and used words like 'respect,' 'camaraderie,' and 'friends' when describing their port's internal social relationships. One fisherman shared they felt they were too new to the port to answer this question adequately, and so scored this question as 'Neutral.'

- Several participants reflected positively about fellow fishermen and their shared sense of commitment to the future of Eureka's fishing industry and community. They described the trust between Eureka fishermen who watch out for each other's safety and the shared responsibility for keeping the ocean clean of derelict fishing gear.

- Several participants acknowledged that the social landscape has changed since decades past, when many fishermen would meet in-person in the same place consistently. One fisherman attributed the shifting social situation to new technology that younger fishermen use for social connection, such as smartphones.
- One fisherman expressed disappointment about declining engagement in the Humboldt Fishermen's Marketing Association compared to decades past, when the port of Eureka was home to a much larger fishing fleet.

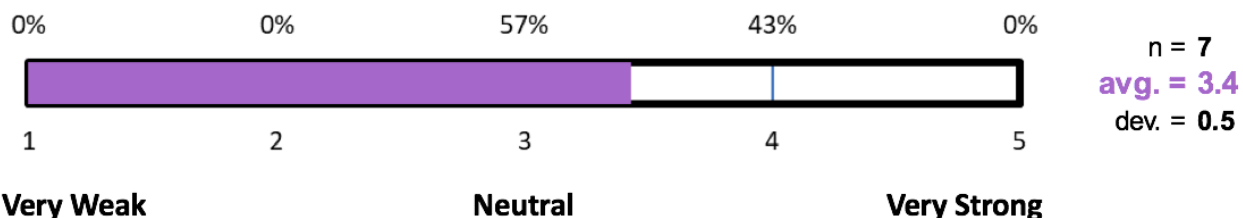
Participant Quotes

"I truly think that we do have a good group of guys up here. And I think it was last year or this past year... we got a decent amount of crab guys from other areas that came up. And they had been coming to our crab meetings and they had said that they didn't quite understand how all of us kind of sat in a room together, actually all getting along. They're like, 'Wow, you guys don't argue, fight, go outside, this and that?' We have a good group of guys that all really work together well."

"When I was a young person sitting in the back of the meetings at Humboldt Fishermen's Marketing Association in '74, '75, '76, there was 40 or 50 guys in the room. You know, there were places where fishermen met every morning when the weather was bad. If you were looking for a particular guy...you drove down to the fish company in the morning, those guys were all there. [There was] a card room... Now there's no place that I know where fishermen of all different ages routinely meet...I don't see that connection anymore that I had when I was younger with the older fishermen that were here."

"I talk to you guys all the time, [name redacted] is one of my best friends. Brewpubs are a place where we hang out. But I think that we all have respect for each other because we all know that we're part of this industry and that we care a lot about it and we want to see a future in it. And then I think that we all do pretty well working together in our fisheries, like as far as keeping an eye out for each other, taking care of cleaning up the ocean from crab gear, working together in those fisheries sort of aspects."

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants expressed a broad spectrum of views on the strength of relationships between Eureka's commercial fishing fleet and external groups, and shared that it was difficult to rate/score this question accurately when asked to consider this wide range of external groups, from government to NGOs to the local community.

- One participant thought Eureka fishermen's relationships with government groups are often problematic. They cited challenges with enforcement and ambiguities in regulations that vary from the original intent of regulations.
- One participant described how the fishing community's relationship with NGOs ranges from catastrophic to positive, depending on the organization.
- Several participants gave specific examples of Eureka fishermen's engagement in policy processes, including the Dungeness Crab Task Force, Pacific Fishery Management Council committees, California Advisory Committee on Salmon and Steelhead, Pacific Coast Federation of Fishing Associations, and Humboldt Fishermen's Marketing Association.
- One participant believed that fishermen become more engaged in policy processes once their businesses are more established and stable, and once their young families grow and they have more time to commit to engaging.
- One participant described their intense efforts to support engagement between the Humboldt Fishermen's Marketing Association and various local jurisdictions, including the County of Humboldt and the Eureka City Council, to promote dialogue between the fishing community and offshore developers. They expressed deep disappointment that these efforts ultimately failed due to lack of interest and/or political will by the respective jurisdictions.

Participant Quotes

"I think we work with policymakers because ... it's kind of been put upon us that we are to work with policymakers..There are some younger guys that are potentially getting a bit more engaged into the process, whether it's the Council process or whatnot. I mean, this [focus group] right here...is kind of one of those...It's fishermen knowing that this conversation is directly going to go into policymaking, or be reviewed by policymakers, I should say. So I think in this day and age, you kind of have to work with policymakers and communicate with them."

"[Regarding] community support, many folks aren't aware of what our problems are. We look really nice in the harbor for tourists, we're iconic on wine bottles, but as far as the needs of the fisheries, we really have to go to the Harbor, to the Board of Supes and so on and state our case. And sometimes we have lacked the time and energy to engage in that way. But when we do and people do become aware, then they're supportive."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants discussed their desire for CDFW and FGC leadership to be more proactive managers. Several participants expressed that more support is needed to recover salmon populations in Northern California.

- Several participants expressed frustration that CDFW and FGC leadership is so risk averse that they will not act to fix issues within fisheries, where the benefits to California fishing ports would far outweigh the costs of action.
- Several participants re-emphasized that more attention and resources are needed to support salmon population recovery. One of these participants suggested that brood stock hatcheries with high production, accompanied by trucking fish to estuaries and bays, would be a good starting place.

Participant Quotes

“The Department of Fish and Wildlife is very passive in management and seems to only make changes in response to lawsuits instead of being proactive managers.”

“We're needing more support for salmon population recovery and less for closing down fisheries.”

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

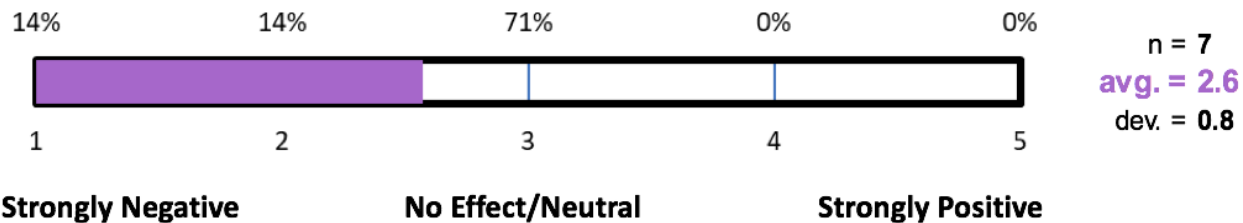
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants shared that they haven't seen monitoring data from the MPAs, so they don't know how marine resource health has been impacted by MPAs.

- Several participants believed the MPAs have not had a noticeable effect on marine resource health and/or there is no baseline against which to measure the impacts of the MPAs. It is difficult to tease out MPA effects from other variables.
- Several participants described how MPAs have increased fishing pressure in areas that have not historically experienced intense fishing pressure, which they believed might be a negative effect from MPAs.
- Another fisherman highlighted the negative effects MPAs had on kelp following the sea star wasting disease since fishermen could not help weed out purple sea urchins to save the kelp forests.
- One participant thought MPAs do not provide a safe haven for fish due to their seasonal migrations outside of MPA boundaries.

Participant Quotes

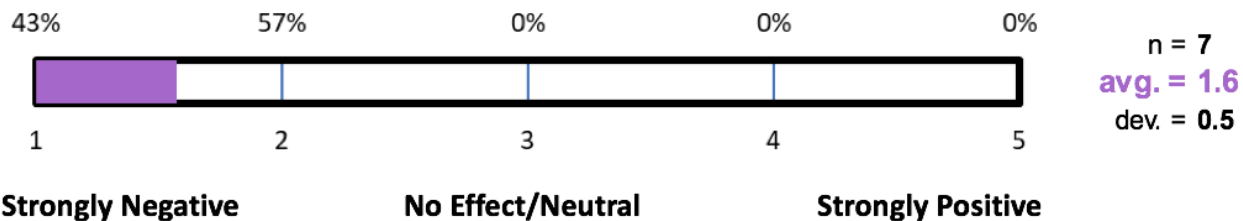
"You don't know if these [MPAs] have or haven't had a positive impact on the marine resources because...we haven't really been able to go in there and look at what's happened...Just a suggestion that if you want to get an idea of what's happening in these areas, to hire fishermen to do that, commercial fishermen specifically... Everything in our lives has to do with being on the water. And so we have a pretty good understanding of how the health of these ecosystems work. We see it on a day to day."

"There's no baseline to compare with to show effects. The 10 year review will be a baseline, but after major ocean changes, [and] we can't fish rockfish anymore. So no sampling is taking place in state waters and salmon swims through. There's no way to measure the effects, there are too many confounding variables. Since there was no original baseline to justify the MPAs and some of our best areas were closed, MPAs cannot claim to have recovered the rockfish fishery; that recovery was well underway."

"A negative effect is that remediation is impossible within MPAs where the purple urchin proliferation that ate all the kelp after the top predator starfish died off from wasting disease."

Loss of the kelp is a significant loss of nurseries for many species. The urchin divers can't go in the MPAs to fix that now, to harvest those invasive urchins. This was a classic trophic cascade of loss of the top predator. And it's a huge problem for many species. The MPAs don't help."

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary Participants shared that the MPA network has greatly impacted their ability to earn a living from fishing for multiple reasons, as described below. They discussed compounding impacts of the many layers of closures and restrictions, in addition to MPAs, that add to the challenges of gaining income from fishing. Several participants said MPAs create compaction issues and increase fishing pressure on smaller fishing grounds, which creates negative impacts on marine resources.

- One participant explained that MPAs cause fishermen to travel further to fishing grounds, which negatively affects safety and operating costs. They said they don't see benefits from the MPAs to make up for these added impacts.
- Several participants discussed the various restrictions they must heed on top of MPA closures (i.e., depth restrictions, target species, gear type, season delays and early closures, etc.), and described the direct negative impacts these cumulative restrictions have on their ability to harvest catch and gain income.
- One participant believed older fishermen have given up on nearshore rockfish fishing, and the MPAs solidified the decline of older generations participating in this fishery. They said the majority of fishermen targeting rockfish are the younger generation.
- One participant supported an alternative approach to sustainable fisheries management as outlined in Ray Hilborn's book, *Ocean Recovery*. According to this participant, the author suggests that instead of trying to closely protect 20% of fishing grounds (e.g., with MPAs), a better approach might be to thoroughly monitor and regulate fishing on 100% of fishing grounds.

Participant Quotes

"You can't talk about MPA impacts without talking about all closure impacts, because as a fisherman, that's what we're dealing with. We don't wake up...go fishing and just go 'MPAs are

the only thing that we have to worry about today.' We go out there and we go, 'We can't go here. We can't go here. We can't go here. We can't go here.' And so we're forced into smaller and smaller areas. [The MPAs] have strongly, negatively impacted us [and our] ability to catch fish and bring fish back to port to sell."

"I think the vast majority of the older fishermen truly believe that there is no more rockfish fishery and MPAs kind of solidified that. I mean, as the rockfish stocks were declining and the rockfish opportunities were going away, also came about the MPAs, which took away way more grounds where the rockfish lived. And that was kind of the nail in the coffin for most people. And if you notice, the vast majority of people that are participating in the limited rockfish fisheries that still exist to this day are the younger generation. And that's because the vast majority of the older generation have given up on the groundfish stuff, or at least the nearshore groundfish fisheries."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific *Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?*

Discussion Summary Participants identified MPAs near Humboldt Bay and throughout California that have affected commercial fishermen from Eureka. Several participants said that all MPAs have negatively impacted their livelihoods, particularly State Marine Reserves where all fishing is prohibited. One participant said North Coast MPAs have made half their fishable area inaccessible to nearshore groundfish harvest. Several participants highlighted that compounding impacts from other restrictions (ie., Rockfish Conservation Areas (RCAs), submarine cables, etc.) in addition to MPAs, which creates challenges for fishermen. One participant was frustrated that MPAs do not address industrial impacts such as oil spills, mining, sonar arrays, and U.S. Navy sonar testing.

- **Reading Rock State Marine Conservation Area (SMCA) and State Marine Reserve (SMR):**
 - The proximity of these MPAs to adjacent RCAs results in more unavailable fishing ground than what is shown by MPA maps alone.
 - One participant said they had been fishing this area for their entire commercial fishing career, spanning approximately two decades, before it was made into an MPA.
 - One participant said they've lost substantial income due to this MPA.
- **South Cape Mendocino SMR, Mattole Canyon SMR, Sea Lion Rock SMR, Big Flat SMCA:**
 - Various participants said they were negatively impacted by the MPAs around Mattole Canyon.
 - One participant said if they could fish in these closures, their work day would be shorter and they would have access to more available fish.
 - One participant said their best fishing spots are now inaccessible due to these MPAs and another said they've lost substantial income due to these MPAs.
- **Ten Mile SMR:**
 - One participant said they successfully fished salmon here before this MPA was created.
- **Point St. George Offshore Reef SMCA:**

- One participant said this MPA doesn't impact them personally, since it is outside the thirty fathom boundary they are already restricted by.
- *Samoa SMCA:*
 - One participant identified this as the only MPA that doesn't negatively impact them because it encompasses only sandy bottom and fishermen are allowed to harvest crab.
- *(Various MPAs near Bodega Bay):*
 - One participant said they used to fish for salmon around Bodega Bay, and can no longer do so, which adds to many negative impacts fishermen experience from MPAs.
- *(Various MPAs in Southern California):*
 - One participant expressed frustration that MPAs do not address water quality issues, and specifically mentioned concerns about Los Angeles sewage being dumped into Santa Monica Bay.

Participant Quotes

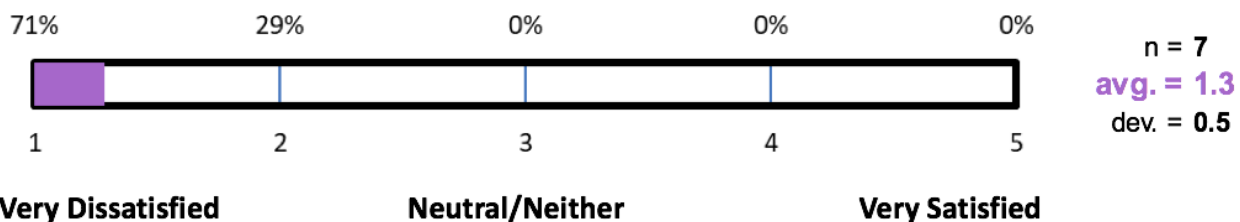
"Cumulative effects of MPAs plus other closures are difficult to work around and emotionally discouraging as well. A shorter day would mean more time with family and children."

"I measure the MPAs...like Reading Rock, Sea Lion Gulch, Ten Mile, and the other ones...on how much money they've taken out of my pocket since they've been implemented based on the previous years earnings in those areas. And it's a lot. [...] Sea Lion Gulch [SMR], we made a lot of money there in the springtime."

"A lot of gear goes to the Reading Rock area from Crescent City, Trinidad, Eureka, and to go up there since that MPA was put there, the concentration of gear on that three mile line is absolutely sickening. They talk about gear concentrations. You got guys that are fishing tight on that line and everybody's fighting for that inside line. You got thousands and thousands of pots, and I'm not exaggerating, all piled into one area because everybody knows there's a little bit more crab inside there and they're trying to draw it out. And I don't see any benefit yet at all, personally."

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants resoundingly agreed that original and ongoing MPA network management goals and efforts have not been clearly communicated to fishermen.

- One participant highlighted that fishermen desire measurable goals against which they can measure the potential success of the MPAs in achieving those goals.
- One participant was frustrated that baseline data was not collected before MPA implementation, which might have demonstrated the need for MPAs. They believed that closing fishing grounds without first collecting data that demonstrated the need for closures undermined the process.
- Several participants said they weren't aware of ongoing MPA monitoring efforts, and that without robust information about the status of marine resources in the MPAs, it is impossible for managers to know how to manage them.

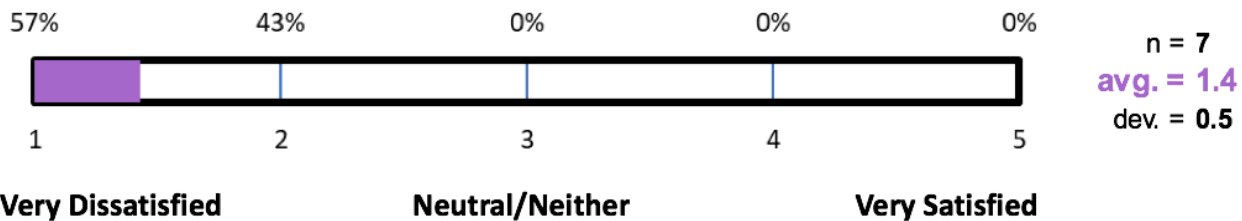
Participant Quotes

"I just think there's a lot of confusion about what the MPA's goal was, like, what they are trying to achieve. And they haven't put it in a measurable form for us, so fishermen have a hard time with that. Like, if you can say, hey, well, we're intending to increase rockfish stocks by this much or we're expecting the kelp to regrow this much or, you know, we're expecting to save the bottom by not letting people drag in there. Something that we can measure would be good for us to understand the goal of an MPA process. And I just haven't seen that to this point."

"I have never seen any scrap of evidence that there's been any management. I never see anybody on the water in these areas...There's no tangible evidence that there's actually anybody out there looking at these various sites. If you don't look at what you have, it's pretty hard to decide how to manage it."

"Is the goal to keep fishermen out? Because that's kind of what it feels like, as opposed to really looking at the stocks and trying to accomplish something with the stocks. Or is it just about keeping the fishermen out?"

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants expressed dissatisfaction with the monitoring of the MPA network since they haven't seen monitoring efforts occurring in local MPAs, nor outputs from monitoring studies.

- Participants stated that if monitoring was occurring, fishermen would have observed this activity due to their frequent presence on the water.
- One participant knew about hook and line sampling efforts by charter boats and said they were aware of tagging efforts because they caught tagged fish outside of MPAs. They recalled seeing one large vessel monitoring a local MPA many years ago.

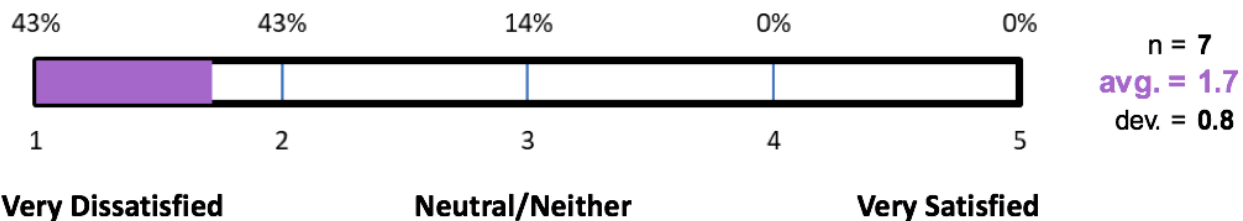
- One participant said that if monitoring efforts have occurred, this information has not been communicated effectively to fishermen.

Participant Quotes

"I've only seen one larger vessel monitoring the Reading Rock once, many years ago, but we don't really know what the management is or if there is really monitoring. I mean, we're on the water quite a bit. And if there is indeed some monitoring and management, we have not seen that information. It's not really made accessible for us to look into."

"Monitoring requires presence."

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants expressed frustration about inconsistencies and lack of clarity in the enforcement of MPA regulations.

- Participants described their ongoing efforts to seek clarification about MPA regulations, and said their inquiries are often met with insufficient explanations and a lack of resources to support fishermen whose goal is to operate their businesses in compliance with the law. They recounted instances where CDFW Wardens provided vague explanations and sometimes inaccurate responses to questions about MPA boundaries.
- Several participants were frustrated about the layers of regulations and unclear boundaries, and stated their desire for better assistance from the state to clarify and explain MPA regulations and their relationship to other state and federal closures.
- Participants described their experiences with inconsistent enforcement and described Wardens as appearing arrogant and disrespectful. One fisherman recalled seeing fixed gear in MPAs throughout California, including one instance where they observed fixed gear clearly within an MPA boundary; a CDFW Warden boat was anchored up nearby for the night, then left in the morning without addressing the illegal gear.
- Several participants discussed the burden of being accused of a violation when, in many instances, they did not feel it was warranted. They described needing to balance the cost of accepting the citation and paying the fee (even if they felt they were innocent) versus the time and resource costs of fighting a citation. One participant recalled anecdotes of fishermen who were cited for violations that were ultimately thrown out of court, but who were still unable to participate in policy discussions and committees due to the violations.

Participant Quotes

“What we find as fishermen constantly is that we know the rules better than the people that are supposed to be hired to enforce them. We call asking for help and education on these regulations and rules, especially the little nuances or gray areas [...] and it constantly falls on deaf ears. Nobody has the answer for you, or they give you a vague explanation, and then it's your ticket and your livelihood on the line if something goes wrong. But if you can't tell somebody what the rules are accurately or you don't understand them, then it's not fair to think that you can enforce them.”

“You know, you just hear the horror stories about how some guy got a ticket. It seems like if we don't have a management goals for this and we're not monitoring it at the level that it probably needs to be scientifically significant, all we're using it for is a fundraiser for the state to write people tickets.”

“[If you get a ticket, and] you go to court, and you win, it's still going to cost you seven, ten thousand dollars for an attorney for something that you're completely right about.”

“I know fishermen who have been accused of violations that were thrown out of court and then they could no longer serve on any committees. So they were no longer allowed to engage in policy engagement because they had been accused falsely.”

19. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants communicated several topics that they would like managers to know regarding MPAs and MPA management.

- One participant said the MPA implementation process took a negative toll on their community.
- One participant highlighted the value of hiring local commercial fishermen for MPA monitoring efforts.
- One participant anticipated increased landings of nearshore fish stocks and expressed concern that managers will attribute this increase to MPAs increasing nearshore stock abundance rather than other causes. This participant believed the real reason for future increased landings will be due to nearshore permits becoming transferable after two decades of non-transferability and limited use.

Participant Quotes

“We had the whole [MPA process] thing shoved down our throats. It was pretty horrible. Some of the people who were really happy to apply this process of, you know, choosing where to put the closed areas, they were well paid and proceeded to well-paying jobs in the administration. [...] The dissenting scientific opinion on the Blue Ribbon Task Force was that the requirements for amounts of different habitat to conserve were pulled out of their ear.”

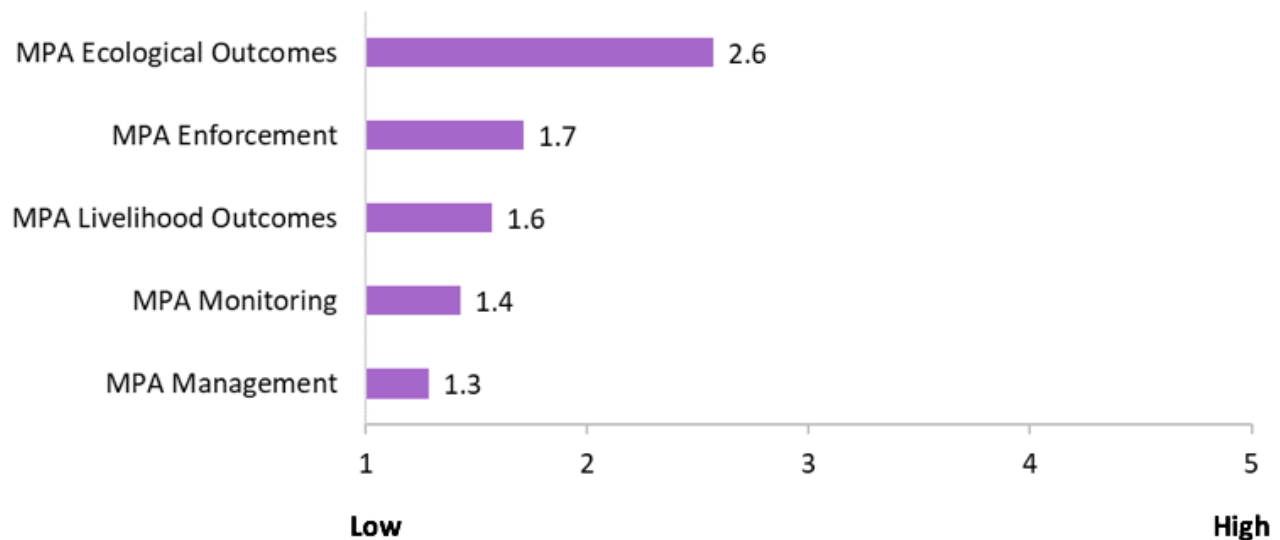
“The MPA process was the least transparent, most divisive issue to come to our community. Proponents crow about the unified proposal, but NGOs had paid staff while fishermen went on

their own time to try to preserve as much as we could save under duress. The process used up significant political capital of fishermen.”

“If we say that, you know, things are not doing well in the ocean, I'm concerned that people will say, ‘Oh, we need more MPAs.’ Right, to protect rockfish, which we don't get to fish anyway without quota and so on, and won't deal with the salmon problem of habitat.”

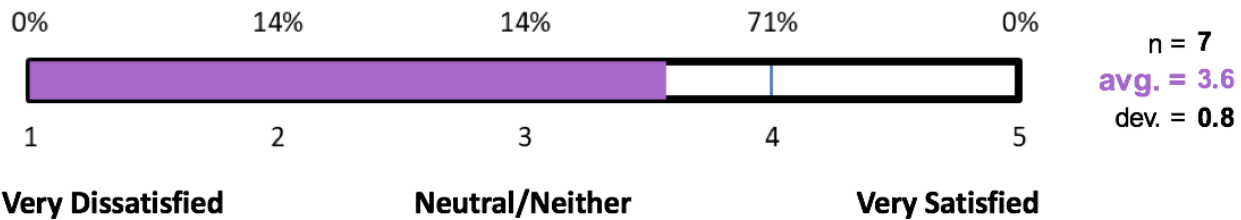
“I just want to reiterate the importance of these groundfish in state waters and these rock piles and no more closures, because these are the fish that are supporting these small communities. They're putting shoes on our kids’ feet...if we start closing down more areas that's going to just shift the effort [for] meat production to the drag boat fleet, and those are dimes, not dollars per pound on these fish. These fish have value. And we're trying to do our best to bring them in. But we need infrastructure and we need open areas and quotas to do the work. And people love the products. [...] It's money from the community staying in the community, being spent by the community. It's all good. But these closures [have] been a hindrance, not a help for the fisheries. And we're not seeing the data that shows us that they're doing any good.”

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



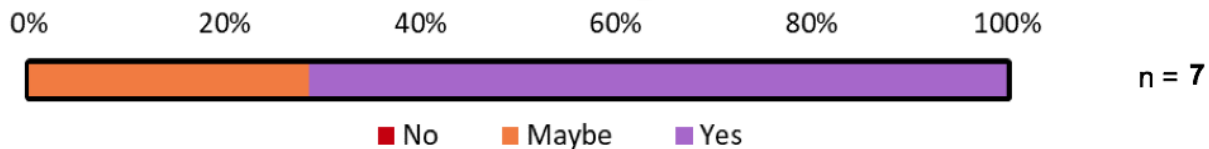
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the orange bar indicates the percent of participants who responded 'Maybe' to question 20b. The purple bar indicates the remaining percent of participants who responded 'Yes.' If participants responded 'No,' a red bar would appear.)



20c. Process Open-ended Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?

Discussion Summary (Due to time constraints during the focus group, participants rated this question, but did not discuss their responses.)

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network *Members of Shelter Cove's Commercial Fishing Community*

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Shelter Cove

Date: Monday, October 19, 2020

Participants: Teresa Davey, Jake Mitchell, Jared Morris, Sam Stebnicki

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

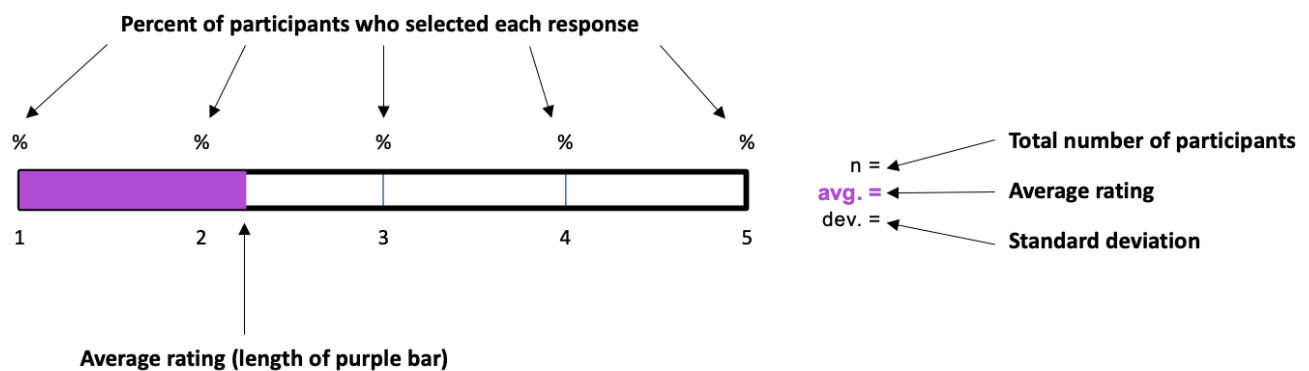
Overview

On October 19, 2020, four fishermen operating out of Shelter Cove, including three who fish commercially and two who are CPFV operators, participated in the eighth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 15 and 21 that display all of the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

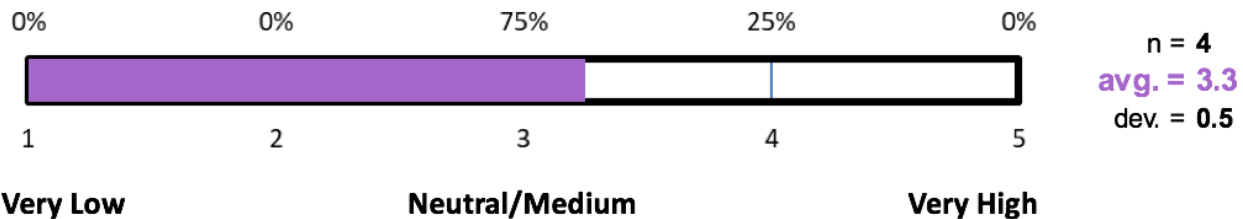
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2013–2017, North Coast](#)
- Information about the [Dungeness Crab Task Force \(DCTF\)](#)

Our Project Team would like to express our appreciation to the four Shelter Cove fishermen—Teresa Davey, Jake Mitchell, Jared Morris, and Sam Stebnicki—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary In terms of the current health and sustainability of marine resources, fishermen from Shelter Cove reported that some species are healthier than others and offered suggestions that they believe could help improve overall marine resource health.

- Several participants reported that rock cod health is doing well. One participant suggested that more areas, including deeper waters, be accessible to fishermen to reduce current fishing pressure on rock cod and other species.
- Participants shared several factors they believe have affected salmon conditions, including water diversions and climate change.
 - One fisherman described how salmon are unable to travel downstream to the ocean because of less rain in the Humboldt area.
 - Another fisherman suggested the fishing season for salmon does not coincide with salmon runs, making it difficult for fishermen to catch salmon when the season is open due to low abundance.
 - One participant suggested that programs like hatcheries be developed to help increase salmon abundance in Northern California waters.

Participant Quotes

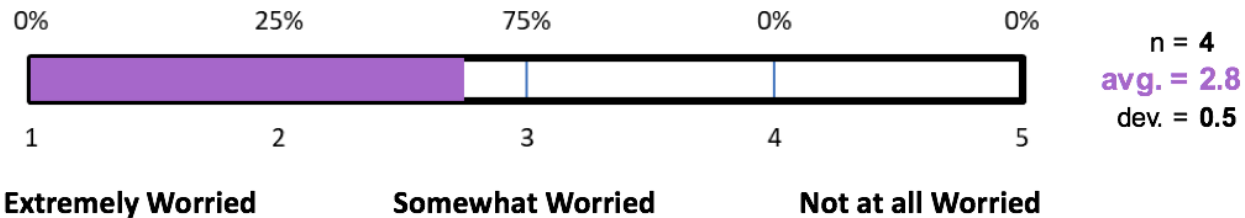
“We're having a good rock cod season, but salmon was kind of bleak with only really a month open for us. But if they [California Department of Fish and Wildlife (CDFW)/Pacific Fisheries Management Council (PFMC)] opened up a little bit more areas for us to fish [that] would be nice. Give us more places to catch them, maybe deeper.”

“I think [for] the past four or five years, we've had some crazy rains during the year. But [name redacted] and I were just talking the other day looking for salmon and they're starting to pile up in the river, but they can't go anywhere. So it's like [in] Humboldt, we were used to [there] being this rain, rain, rain and now it seems like [rain events are] getting later and later.”

“They're doing other programs, like the trucking program and the net pens, down in Monterey Bay for the salmon, and you look at their salmon seasons [and they are] what seemed like, historically, our salmon seasons [in the Shelter Cove area] were [. . .] and now they're the ones that pretty much have all the fish in the last few years. And I think that if Northern California in

some way could get on board with some similar programs, it could help because the rivers and the water - they're not coming back anytime soon."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants communicated some concern about the long-term health of marine resources and highlighted their uncertainty and questions regarding ocean conditions into the future.

- One fisherman shared the concern that increased pyrosome (translucent, tube-like 'sea pickle') abundance may affect the long-term health of rockfish and yellowtail.
- Another fisherman questioned whether the recent changes in ocean conditions, like water temperature changes, are part of a cycle that has been experienced in the past or if we are entering a novel cycle of environmental change.
- One participant was optimistic about the future of the CPFV/charter industry and believed people will continue to want to recreationally fish.

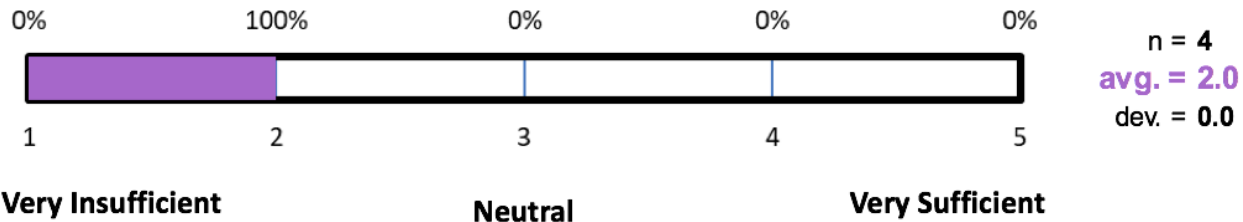
Participant Quotes

"Over the last few years, we've had an explosion in the local pyrosomes, which [are] sort of like a little jellyfish-looking creature. But the rockfish have exploded with it in the last couple of years. But [. . .] because the pyrosomes eat smaller things, could that cause a long-term issue with our rockfishing and our yellowtail and all of that? So they're eating and gorging on them now, but what's going to happen in the future is a question."

"I think about it [ocean conditions or environmental change] a lot and I think almost undoubtedly it probably has something to do - and will do - [with the future health of marine resources]. But then there's also a part of me that says I'm sure the ocean goes through cycles, and I don't think I've been alive long enough to see those cycles. And so there's part of me that says, 'yeah, it's changing a lot, but who's to say that it hasn't done similar changes in the past?'"

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants expressed concerns related to the level of access to commercial fish resources for fishermen from Shelter Cove.

- Several participants shared that depth restrictions inhibit access to some species which increases fishing pressure on other species in shallower areas. One participant mentioned that compared to charter fishermen, commercial fishermen have greater access to deeper waters.
- One participant explained how open access fishermen fish in deeper waters so they can catch what they need but that, in doing so, they incidentally take deeper nearshore fish that they cannot keep without a permit.
 - Another participant added that while a deeper nearshore permit is very expensive and difficult to obtain, it provides access to more species compared to open access fisheries.
- One fisherman shared that during a good crab season, larger boats often outnumber smaller boats, put more gear in the water, and fish longer hours, making it difficult for smaller boats to access crab.

Participant Quotes

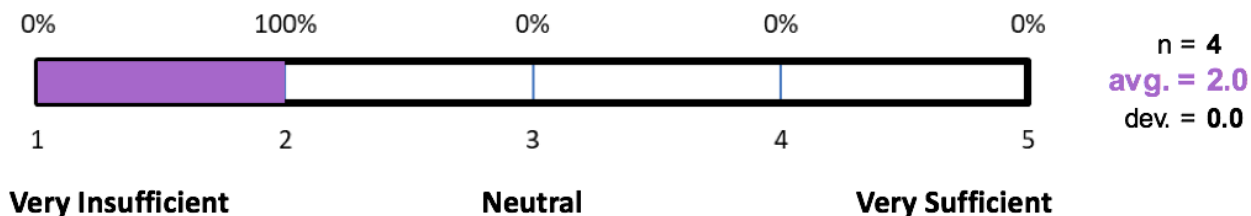
“With the depth limitations in place - let's say, for instance, we have a rock pile that's probably ten square miles area - just throwing out figures - but through the depth limitations, we're really only allowed to fish I would say probably 50 percent of that. And so I would say that's the biggest limiting factor, and then it kind of puts pressure on other nearshore fish, such as black rockfish and cabazon rockfish. [. . .] I think it'd be a lot more beneficial and help out everyone if [we were allowed to] spread the effort out throughout that rock pile [beyond current depth limitations].”

“The deeper nearshore [permit] has actually saved us, made it easier to go out fishing for the blacks and the blues, which the open access guys can't catch. So it's made a big difference for us. But that permit was very expensive and [we] had to know somebody, like we met this guy in Fort Bragg [and] waited five years for him to finally say he was going to give up the deeper nearshore [permit]. Without knowing him, we would have never gotten it. But we stood back and we waited five years. We called him twice a year to let him know we really wanted it. We finally got it. But I mean, there's only so many of those [permits] out there and [. . .] if you don't sell it, it will die with the fishermen.”

“If we're having a good crab season, we have to kind of be quiet because if anybody gets a word out there, the next day, you've got 30 big boats and they're dropping their gear all over your

gear and they're fishing 24 hours a day. And half the time you'll go and you'll pull your pot up and one's full and you go to the next pot and it's empty. So they're pulling your gear and we can't stay out all night. So that's the hard part for us. And just to get around these other buoys, I know it was like two years ago where every time we pulled a buoy, we had somebody else's buoy tied around ours. And it was just crazy how many big boats came in and kind of wiped us out. [. . .] I think it was because of domoic acid, when ports were shut down, so everybody flocked to where we were [in Shelter Cove]."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants indicated that income earned from commercial fishing alone is often not enough to support a livelihood.

- One fisherman stated that they require a second source of income to supplement what they earn from fishing.
- One participant emphasized that fishermen are willing to do what it takes, including fish in inclement weather, to earn enough income from fishing to support their families; more so among younger fishermen than older fishermen. They explained how older fishermen from their port do not earn much income from fishing but that they choose to stay in the industry rather than sell their business.
- Another participant identified a connection between income earned from fishing and available infrastructure. Since Shelter Cove does not have a processing facility and fishermen cannot sell filleted fish off their boat, potential sales are lost because many customers want to purchase filleted fish.
- One participant shared that CPFV/charter fishermen operating out of Shelter Cove earn sufficient income.

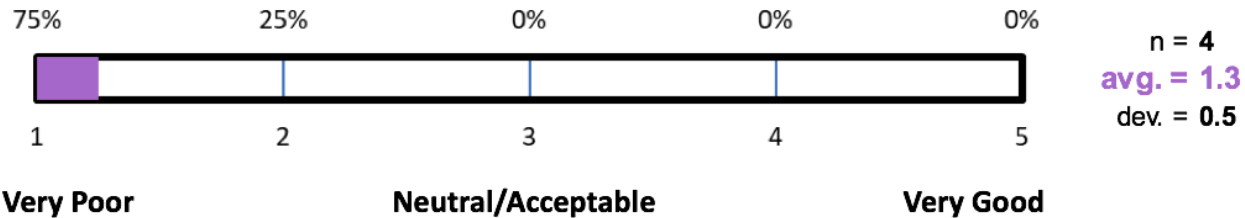
Participant Quotes

"I'm actually doing fairly well with it [commercial fishing] at this point, but it's a lot of work and there is a lot of pedaling. You're taking fish around to people - you're definitely doing some work. It would be a lot easier if there was a legal place to fillet fish because I have people come to the boat daily that want fish and you go to try to sell it to them and they want it filleted and technically you're not supposed to fillet it for them without a processing facility. So you're always battling [that]. You end up losing a lot of customers that don't want a whole fish."

"[Name redacted] will go out and fish the rough shit because he has to if he wants to support his family whereas those older guys - they're over it."

"A lot of the old timers are still hanging on and they're not making money, but they refuse to quit. They have their boats, and they're not selling them and they're expensive."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary When discussing markets, participants noted the difficulties associated with selling catch that is landed in Shelter Cove.

- Participants shared that because Shelter Cove is a small, remote, rural fishing community, fishermen operating out of the area have limited market opportunities, requiring fishermen to seek alternative ways to sell their product.
 - Several participants identified one long-term buyer that fishermen from Shelter Cove sell their crab to. Fishermen must drive their catch about an hour away to meet the buyer which has its own set of challenges.
 - A couple fishermen explained they purchased a license to be able to sell their product themselves rather than compete with the limited number of local buyers, though some, particularly older, fishermen may not be willing or able to.
 - One participant stated they sell to local markets and that they also have a buyer in the Bay Area. They added that having multiple marketing opportunities allows them to sustain their business.
- One participant indicated the few market options that fishermen from Shelter Cove have are also uncertain and can be pulled away at any time. They gave the example of losing buyers because people did not quality control their catch before bringing it to market.

Participant Quotes

“As a commercial fisherman, as a commercial crabber and doing it for a long time, the hardest thing is finding a place for it [crab] to be sold. We're in the most remote place in the most remote port in Northern California. I mean, to get here is impossible. So to have somebody come pick our crab up, the 18 wheelers, they don't want to do that. Why would they want to come out for our ten thousand pounds when they can just go somewhere else?”

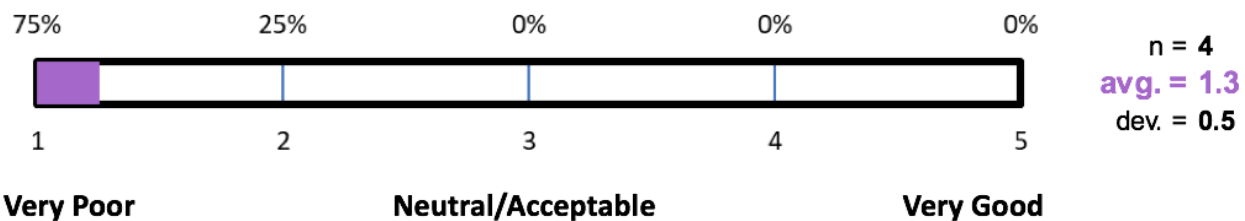
“We have a buyer that has been committed to Shelter Cove for a long time and he brings the truck up and we have to drive over the hill after off-loading our crab onto our trucks and trailers and haul them a half hour, 40 minutes to town to meet a truck that most likely [isn't] on time. It's usually nine [am] to one [pm] when we're meeting this truck and then we have to drive back home on these roads. So it's something we have to commit to because we haven't found somebody to drive out there [to Shelter Cove] and pick our crabs up yet.”

“I just think it's really hard for anybody to keep going and not step on toes because we're all friends out there. If there's eight of us out there in a small little community [. . .], we're all going to go to the same place and try to sell our fish. So here we are - two, five, six, seven fishermen - all going out and trying to catch open access fish and all trying to fight for that same market. So

[. . .] you're buying these licenses and trying to go somewhere else, but only so many commercial fishermen are going to do that. The old timers that have been fishing for 40 years commercially for cod, salmon, crab, they're not going to go buy that eight hundred dollar license and go peddle fish on the streets. Even though it's lucrative, they're just not going to do that."

"We're dry crabbers and it only takes one person from the Cove to bring in dead crab and ruin it for everybody else. And it wasn't once or twice. It was three times. And the rest of us lose out because they're not [doing] quality control. Without them [crab] being in water, you got to be very careful. You can't be letting them sit in the garbage cans for hours or dumping your whole barrels in without handpicking the crab out. Those are just things that we've lost buyers [because of]. We're grateful to have the one buyer. But it just takes one person to mess it up for everybody else, which is kind of crazy."

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Related to the port's infrastructure, participants discussed the lack of important and reliable infrastructure in Shelter Cove.

- Several participants identified how the lack of a processing facility makes it difficult for fishermen to sell directly to the public. One participant noted that if fishermen had a place to cook crab, they could increase local sales.
- Several participants highlighted the lack of ice and storage within the port.
 - One fisherman has access to ice in Shelter Cove from their buyer, and another fisherman shared how they use an ice machine located at a family member's house in Shelter Cove.
 - Several participants explained how most fishermen use their homes for boat and gear storage and other infrastructure needs.
- A couple participants noted that while the tractor boat launch is reliable, the times it is operating can be challenging for fishermen's schedules because it only runs during business hours.
- One participant shared how a local leader helped initiate the drafting of a plan for the future of the port, including infrastructure growth, but that the marina property is privately owned which makes development activities difficult although they are currently in discussion with the owner on the topic.

Participant Quotes

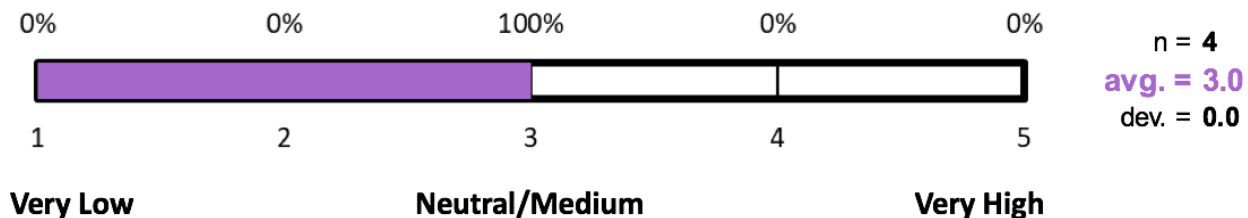
"There's no infrastructure to support any of [the fishermen]. I have people coming up to me asking to buy fish fairly often when I'm cleaning fish and whatnot, but it's hard to sell to the general public because [. . .] you can't fillet their fish legally. But if there was a processing facility where people could fillet their fish and [if] they had a place to sell it, that would help."

"My mother-in-law lives right there in the Cove, and that's where our crab pots are and our boats are parked there and we have a small ice machine [there]."

"I think [the tractor launch is] probably the most reliable it's ever been. But still, as a commercial fisherman, anyone that's running a business can be an inconvenience because [. . .] even though it's open seven days a week, that might not fit your schedule [. . .] when you're crabbing and it's a flat day and you got 200 pots to pull, you want to be out there probably 12 hours a day."

"We've created a blueprint for the marina on how we want it to look in the future, but it's privately owned and trying to get the owner on board with any of that is proving to be a challenge. And we can't do much until we have any kind of ownership or long-term lease on the property which is what our non-profit is working on in the next year or two - just working on getting a lease or a stronghold to [. . .] where we could be able to get grants to improve infrastructure."

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port's fishing operations?*



Discussion Summary Participants indicated that the COVID-19 pandemic did not have much of an effect on fishermen from Shelter Cove, though some saw an increase in local demand for seafood.

- Several participants reported that they experienced an increase in sales directly to the public.
 - One participant shared they were able to sell crab for a higher price than they otherwise would have since most restaurants were closed. They added that more people wanted to purchase seafood directly from the fishermen rather than going to the grocery store.
- One participant stated that they had an increase in sales to their Bay Area buyer.
- One participant explained that the marina development plans had slowed due to COVID-19, but that there are upcoming meetings scheduled to discuss plans for the future of the port.
- One participant mentioned that CPFV/charter fishing operations were delayed due to COVID-19 protocols.

Participant Quotes

"I actually had more people that were personally looking for fish and along with that, I have one buyer that goes down to the Bay Area and I guess the Asian markets really exploded during this time, so they wanted a lot more fish than typically goes down there and we got to sell a bunch during the period of COVID."

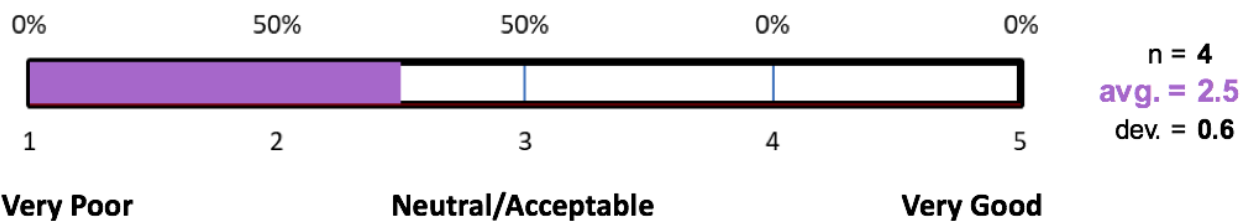
"As the crab season went, we saw a huge hit in the price of crab because of the restaurants closing. Normally when you sell your crab, it goes up 50 cents or 25 cents and [COVID-19] kind of put a stop to the rise in the price. [. . .] We could take live crab here in the Cove and sell them

for ten dollars a crab, which made a big difference with the retailer's license. Then when rock cod season opened up - the people love the rock cod here too - people weren't going into town and going to grocery stores; they wanted to stay home. So all I had to do was text a few people and we would have our orders before we even went fishing so we knew how much to catch.”

“The whole COVID thing put a damper on [marina development] talks [. . .] but [the property owner has] recently hired some new guy to run stuff during COVID, so we have a meeting with him next month to discuss what their plans are. There's a lot going on - the Harbor District's lease is up in March - so there's a lot of other moving and changing parts happening.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary When discussing labor, participants indicated that recruitment and retention of participants in the commercial fishing industry was slightly poor, though the presence of younger fishermen in Shelter Cove indicates a hopeful future for the local fishing community.

- One participant shared how although older fishermen want to continue fishing, they may no longer be able to for various reasons, including not being able to make enough money and not being physically able to fish anymore.
- Another participant expressed a concern with regard to fishermen not wanting to stay in the industry because it is difficult to support a livelihood with income earned from fishing alone.
- Several participants mentioned that they are seeing more fishermen leaving the industry than entering, though there is currently a younger generation of fishermen in Shelter Cove that are working to support the longevity of the fishing community.
- One fisherman explained that it is difficult to find crew.
- One participant explained that it is expensive to enter the commercial fishing industry and to maintain a living due to upfront costs and continuing fees and taxes.

Participant Quotes

“All those old time people that have been doing it for so long are not going to be able to do it anymore because they can't make the money. They can't go out on the seasons that they [CDFW] give us. Sometimes their bodies can't handle it. They want to fish, but they can't or the fish aren't there. So they're spending money but not making money.”

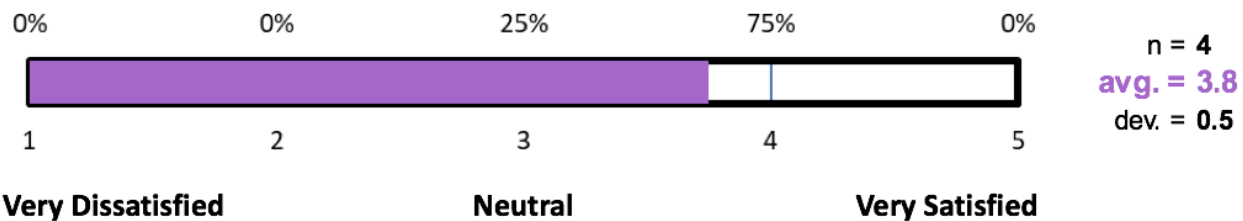
“It could definitely be difficult to find new people. Typically for the help I've needed, I have other friends that are other commercial fishermen that I've been able to call on. So it hasn't been bad for me. But yes, it can be very hard to get someone new and reliable that wants to

fish and get involved. Because if you talk to a lot of the older people, they're pretty dissatisfied - it is hard for them to keep going."

"You got to really want to do the fishing because it's not as lucrative - stuff goes wrong, boats break down, gear breaks and gear is expensive. So for most people, it's easier to get a job pounding nails or doing other things than buying a boat and buying the licenses and paying the freaking commercial fees and then paying the taxes on everything. And by the end of it all, you're already digging a hole, [. . .] you're not looking as good for next year. You're just hoping in one hand and you-know-what in the other and hoping one fills up. It's hard to find even deckhands; people want to do it, but they don't want to do it all every day, all the time. They want to do other things as well."

"I feel like we're fortunate where we still have a pretty [. . .] young corps [. . .] So I think the future is here. There's enough young people involved where it'll be going for a long time. [. . .] We are the younger generation and I think that we're going to be sticking and staying and hopefully encouraging our kin to take over after us."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Participants indicated that fishermen from Shelter Cove are overall satisfied with their jobs.

- Several fishermen highlighted that they love to fish, though some older fishermen are less satisfied in the industry because they are unable to fish as much as they would like.
- One fisherman said their job has given them a sense of normalcy among the COVID-19 pandemic.

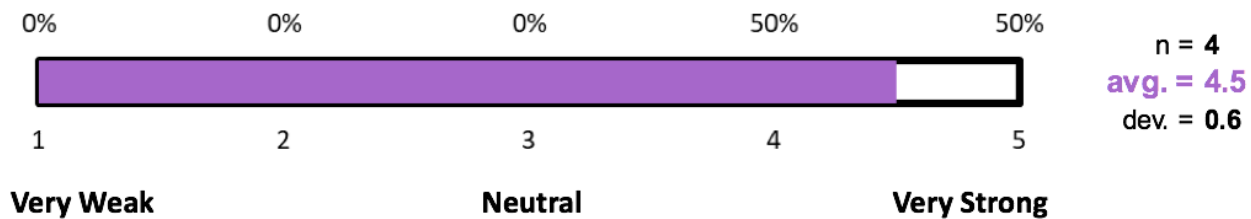
Participant Quotes

"Who doesn't like fishing? I fish all summer so I can fish all winter so I can fish all summer again."

"I have definitely talked to a few gentlemen who might not feel that way [satisfied with their jobs] - some older men who are not fishing quite as much as they would like to. But it seems like among the guys that are fishing regularly, that's kind of the consensus [that they are satisfied with their jobs in the fishing industry]."

"When COVID-19 hit, when I went on the ocean, that's when I felt normal - everything was normal. Then you get off the boat and everybody's in masks and it's just, it was a crazy world. But every time I go out there [fishing], I feel like I'm in the right spot."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Overall, participants reported that they felt social relationships within the Shelter Cove fishing community were strong, but they also identified areas where these relationships could be strengthened.

- One participant characterized the fishing community as tight-knit where everyone knows each other, but as a small community, there can be some tensions between fishermen. For example, with only one buyer in the area, there is increased competition.
 - Another participant suggested that there could be better communication among fishermen. However, participants stated that fishermen in Shelter Cove will help and support each other because they are like family.
- One participant mentioned how the Shelter Cove Fishing Preservation, Inc., (SCFPI) is working to help engage the local fishing community. They shared how the SCFPI emerged, in part, as a result of a local leader's vision for the future of Shelter Cove. The SCFPI now has people that help with the tractor boat launch. Members also produced a plan for how they would like the port to look in the future.

Participant Quotes

"Our Cove - we're all so small. It's a tight-knit community. Everybody knows everybody. So in that way it's very strong. But [. . .] we kind of fall into this [situation where there is] one buyer who one or two people have been selling to for 40 years [. . .] I don't want to step on toes, but as a fishery, I catch more crab than they do now. [. . .] So there's always a little bit of tension."

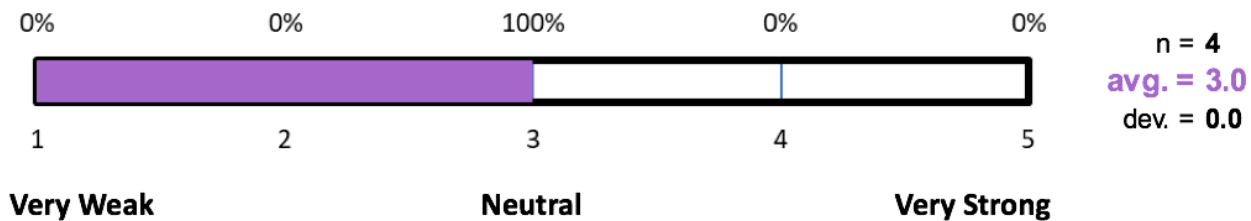
"We're still brothers with each other. And if somebody needs help with their boat, you're going to go to help them. That takes precedence over you making money for that day or whatever you were going to do."

"[The marina restoration plan] encompasses every aspect, from the tractor service to a fish processing plant to this new composter that helps handle fish waste. And so this is our vision that we put together with [name redacted] and his son to hand to the property owner and the Harbor District and other governmental agencies that are involved in the property. And it's kind of to say, 'hey, this is our future and that when improvements are made, let's try to make them along these lines and how we can move forward.'"

"Hopefully [the SCFPI] can be more community-minded. That's the whole purpose behind that organization, is to get some infrastructure built and some stuff built for the fishing community. [. . .] This (holds up binder) is the restoration project. We've got a couple of pictures in here of buildings and some drawings we did, like renditions of the old fish market with the processing facility in it. And so that's sort of the future vision and it encompasses every aspect, from the

tractor service to a fish processing plant with this new composter that helps handle fish waste and stuff. We put [the plan] together with [name redacted] and his son to hand to the property owner and the Harbor District and other governmental agencies that are involved in the property to say, 'hey, this is our future and that when improvements are made, let's try to make them along these lines.'"

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants indicated that relationships with groups external to the Shelter Cove fishing community could be improved.

- One participant suggested that the fishing community's relationship with the Harbor District is relatively strong among SCFPI members, but there is still a need for fishermen outside the SCFPI to be more involved.
- Another participant suggested that most fishermen are not engaged in policy processes because they are worried that what they say will lead to more restrictions. However, they also recognized that the fishing community could benefit from increased fishermen involvement in policy and management discussions.
- One participant referenced the marine mammal entanglement issues faced by commercial Dungeness crab fishermen and said they would like to see more people concerned about the plight of the fishermen and stand up for the industry when they are being unfairly targeted.
- One participant said that the fishermen in the port should identify a representative who is their proxy with external groups and who attends meetings on the fishermen's behalf. Another participant added that most meetings happen in places far from Shelter Cove.

Participant Quotes

"I think I have a different point of view than the others [on relationships with external groups] just because I'm the president of the non-profit [SCFPI] and I have to talk to them [the Harbor District]. Before that, I never really talked to them at all, except for when they came to our meetings. And I would imagine that [. . .] the relationship is pretty poor for everyone else. But I feel like now from my perspective engaging with them, [the relationship] is pretty good. I think that it started off kind of rocky, but now we're becoming a lot more transparent and forthcoming, whether it's good or bad. So at least we're getting honest answers out of them."

"There's a lot of people [that are] wary about talking with anyone that has anything to do with fishing, and rightfully so because they're worried about more restrictions. But I know from some people that are involved, that do go to those [Dungeness Crab] Task Force meetings, we do need more people [involved] and it's frustrating because everyone wants to complain when the rules come in place, but no one's there when the process is taking place."

"I think that if we just had a representative [who] could chime in [for us during fisheries-related meetings, that] would be helpful for sure. There's a [. . .] group and they go to all the salmon meetings, they go to all that stuff, and they call me every year when they're going to the salmon meetings [and say,] 'hey, here are the options, what do you guys want?' So they call and get our input even though we're not really on their board. And I think those crab groups, if they had a name and a number to call and [if we had] a person to say, 'hey, I'll show up to a meeting' or something every now and again, someone has to step up and say I'll be that person."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants shared several suggestions that they would like managers to consider in relation to the Shelter Cove fishing community.

- One participant recommended that fisheries managers do more on-the-ground monitoring using the fishermen as a resource before making decisions that affect the fishing industry.
- Another participant suggested that managers recognize the Shelter Cove fishing community and other smaller ports and vessels are greatly affected by heavy restrictions compared to larger ports and vessels.
- One participant asked that managers listen to the fishermen and consider their perspectives in the decision-making process, which would help to better support the Shelter Cove fishing community.
- One participant communicated that increased access to deeper waters would decrease the pressure that is currently on nearshore species like rockfish.
- Another participant suggested that fishermen be allowed to keep yelloweye rockfish because they catch them more often than other rockfish species.

Participant Quotes

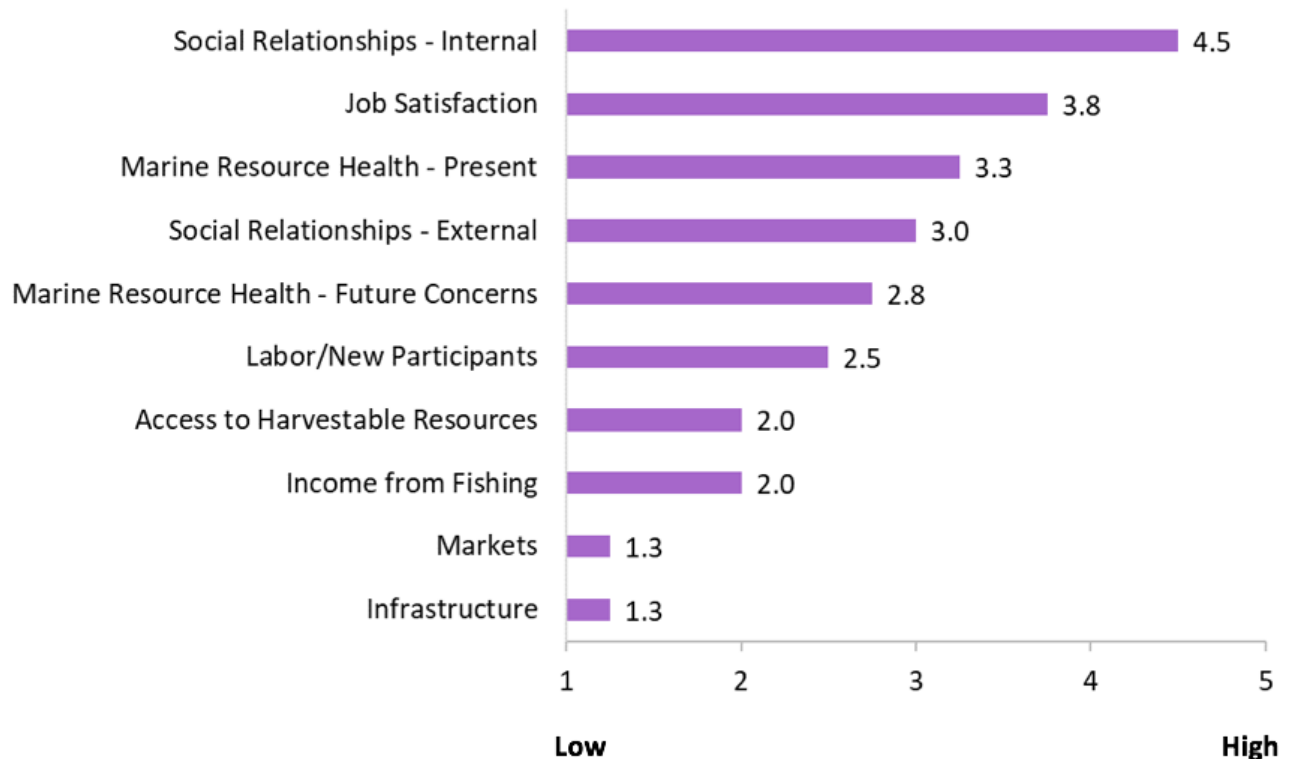
"The people who are making the rules, [I think they should] get out on the water and put a line in the water and see what's there, and I know they do it sometimes, but I think they need to do it more. Maybe with renting charter [boats] [. . .] But I think they could benefit from being on the water."

"When people think of commercial fishing [they think of] this big industry and when you actually look at our community, the biggest boat that we all fish on is a 26-foot. [. . .] So we're not this big commercial industry with big commercial status. We're small-time, but we work our butts off and we love the industry. [And] even though it's small, [. . .] it's very restricted. [. . .] Even if you gave these guys unlimited access, we're not going to be doing a lot of damage."

"I think there needs to be more people like us [fishermen] that they [managers] need to listen to. But at the same time, it's hard because a lot of us don't really want to lose what we already have because for us to get back anything is pretty much slim to none. Once they take something, it never really comes back. [. . .] I think [listening] to us would benefit our fisheries and it would benefit our communities."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

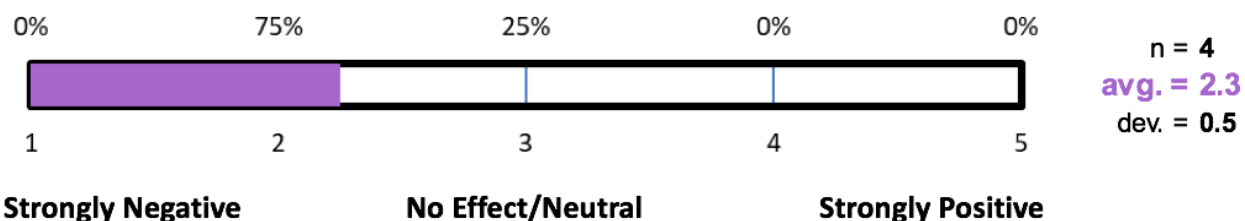
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants reported that it is difficult to comment on the effect that the MPAs have had on marine resource health because fishermen are not allowed to fish in the MPAs and cannot compare conditions inside versus outside the closures.

- Several participants questioned whether increased marine resource health identified in MPA monitoring reports can be attributed to the MPAs or whether it is a result of natural ocean cycles.
- One fisherman shared how they have helped with MPA monitoring efforts tagging fish inside the MPAs and stated that they did not see much of a difference between conditions in the MPAs compared to where they are allowed to fish outside the MPAs.
- One fisherman noted that the MPAs, along with other fishing regulations (e.g., depth restrictions), decrease available fishing grounds and increase fishing pressure in areas that fishermen are allowed to access.

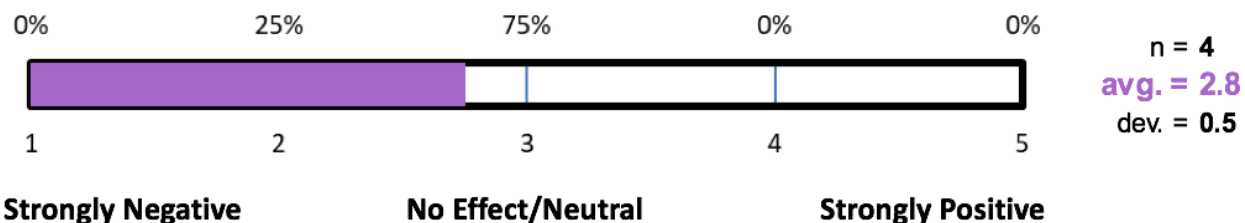
Participant Quotes

"I read some recent study that suggested that it [the MPA network] was working. And I don't know how you would go about saying that that's working. As a fisherman, I can't see any good effects of it. Maybe if I was able to fish in the MPA, I could tell you that there were some better effects."

"Three or four years ago, I took out taggers. I think I did five or six tagging trips. We were able to fish in the MPAs at that time. I could not tell you that it was better fishing than where we are able to fish because we were able to fish in deeper water. We were able to go into the [MPAs] that were chosen [for the study]. [. . .] It's hard to tell if they're [the MPAs] doing better or not because we've tagged thousands of fish. And I've yet to catch a tagged fish [. . .] within a couple miles from where I took them fishing. I didn't see a crazy fish migration of tagged fish anywhere, but I bet you if we were to fish that same area, we probably would have caught some fish with the tags."

"[The MPAs are] taking away fishing areas, which is going to transfer pressure to other fishing areas like groundfish areas, and then you're narrowing the focus with the depth and then more with the MPAs. And so you're just narrowing down pressure on other areas."

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* on page 17 which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall *What other types of effects or impacts have fishermen from your port experienced from MPA implementation?*

Discussion Summary Regarding MPA effects on fishermen's livelihoods, participants communicated that fishermen from Shelter Cove did not experience immediate changes in their ability to earn a living from fishing following the implementation of the MPA network but explained how the MPA network could affect them in the future.

- Several participants shared that MPA implementation did not have too much of an effect on fishermen from Shelter Cove because most of their primary fishing grounds were not designated as MPAs. One participant noted that this was likely the result of people who fish out of Shelter Cove, including those who do not live in the area, being engaged in the MPA implementation process. Another participant added that while fishermen could no longer access some areas they historically fished, they adjusted where they fished.
- One participant stated that they know of fishermen who are concerned about their gear accidentally drifting across an MPA boundary when they are fishing, resulting in violations.
- Another participant indicated that the MPAs could lead to crowding outside MPAs. They also suspected that MPAs south of Shelter Cove have led to boats traveling more to other ports, resulting in increased competition in the area.

Participant Quotes

"We lucked out enough to where they [MPAs] were put far enough away [. . .] from the Cove. [The MPAs] didn't have a huge impact as far as deterring people away [from fishing]."

"Even though a lot of us locals weren't involved [in the MPA implementation process], there were people from Eureka that were pretty involved in that whole process that did a good job of getting them placed in areas that were further away because in the original proposals, they looked a lot worse than what ended up being implemented."

"Sure, those MPAs didn't affect [Shelter Cove] guys' crabbing but maybe they did affect other guys' crabbing like, for instance, Fort Bragg - maybe they're not able to crab [which] might force them to come higher up [north] in our territory."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific *Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?*

Discussion Summary Participants shared several negative effects that they have seen or experienced as a result of specific MPAs. One participant noted that while the MPAs may not look very big on a map, they often cover valuable fishing grounds and the area outside the MPAs is often sandy bottom that does not include habitats of target fisheries. One participant commented that the MPAs did not affect where they fish for crab.

- *Big Flat State Marine Conservation Area (SMCA)*: One participant mentioned that CPFV/charter boats can no longer target rockfish or halibut as a result of this MPA. Another participant stated that there were productive lingcod spots here.

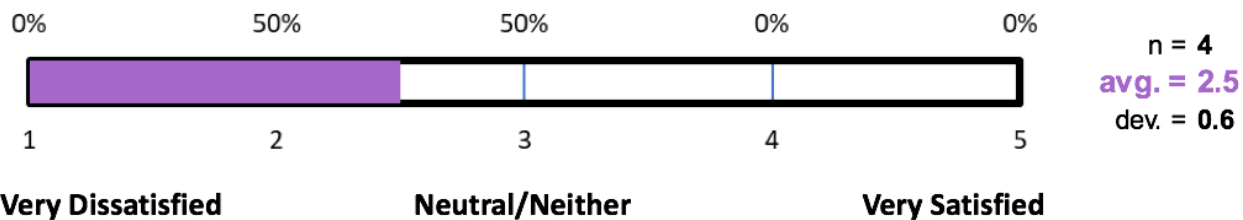
- *Sea Lion Gulch State Marine Reserve (SMR)*: Several participants reported that this MPA restricts access to one of the largest rock piles near Shelter Cove and that fishermen are only able to continue fishing one rock pile just south of the closure. One participant stated that this was another area that had good spots for lingcod fishing. Another participant noted that they have seen a build-up of gear along the boundary of this MPA.
- *Mattole Canyon SMR*: One participant has noticed an increase of fishing gear up to the boundary of this MPA in recent years.
- *Ten Mile SMR*: One participant shared that many salmon fishermen fish right along the MPA boundary.

Participant Quotes

"Between the Big Flat [SMCA] and almost all the way to the Sea Lion Gulch [SMR] - probably a mile south of Sea Lion Gulch - is just all sand. So that's not really fishable grounds unless you're fishing for sole. So from the outside [perspective, you look] at a map [and say], 'oh, well, they didn't take away much' but they took away a lot of the rock [piles]. [. . .] Reynolds Rock [near Sea Lion Gulch] - that's the only rock coddling grounds you have from Shelter Cove to that closed zone [. . .] that are within depth restriction limits. So if we wanted to fish that area, we're targeting one rock pile. [. . .] So there's a lot of ground that they took."

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?

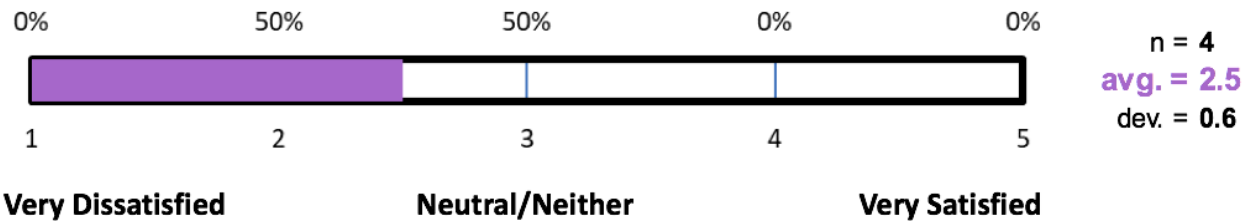


Discussion Summary One participant explained that it seemed like the waters near Shelter Cove were unfairly targeted during the MPA implementation process.

Participant Quotes

"I feel like they picked on us in a way because we're so small here [and said,] 'let's preserve this place that's untouched.' [. . .] Why don't they do that right outside San Francisco and close 20 miles or go shut down all their [fishing grounds]?"

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants shared their experience with MPA monitoring and ways in which MPA monitoring efforts and communication of study results can be improved.

- One participant described how they have been involved in MPA monitoring efforts in the past but that they would like to see increased funding to support and expand the studies.
- Several participants suggested that better communication of results from the studies could help keep fishermen informed of MPA monitoring efforts.
- One participant stated that results from studies done in one MPA may not reflect what is happening in other MPAs and that monitoring should be done in each MPA.

Participant Quotes

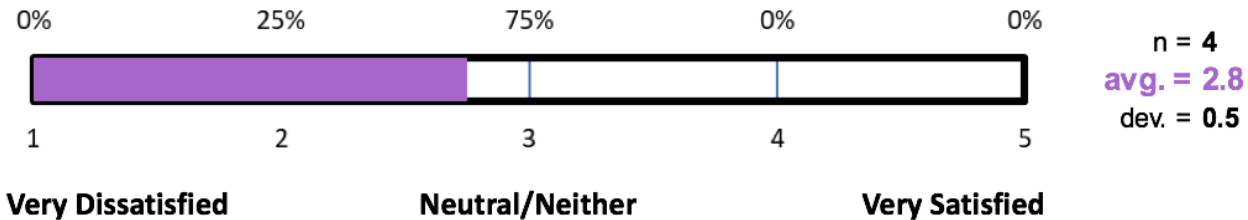
“The only time I've dealt with it [MPA monitoring] was when I was doing the testing [during tagging studies]. I did it for two years in a row and I think I took them [researchers] out four to five times a year. And the last year they came, they were pumped doing all this research. And then they said that they basically defunded the project and they didn't have the money to [continue]. And so I [thought,] ‘if we can't find the researchers to come research it then [how would we know] what's there?’ [. . .] I'd like to see [more investment in monitoring].”

“I think [communicating results] might bring more awareness to what's happening in the [MPAs]. Letting the public know what's happening, letting people who are fishing that area know what's happening. When it's just taken from you, you feel like you're told you can't fish in a certain way, in a certain place. You're afraid of drifting over that line and possibly getting ticketed. It just seems like a negative. So if you get some positives with that, it can be helpful for you to know what's happening.”

“To me, it seems like there is no monitoring, at least not on those ones [Big Flat SMCA and Mattole Canyon SMR] just because those are the ones that are close to us. And I have seen other things on social media where they were doing some projects down off Ten Mile [SMR] where they were catching rock cod. So I don't know if it's just the inaccessibility of those ones or they just decided they're so far away and hard to get to that they're not going to do it. [It] doesn't seem like they've done much with the ones between Shelter Cove and the Mattole Canyon [SMR], but it would be very cool to see results, at least, if they were doing it.”

“Maybe they are doing some research, which I've heard that they are in Monterey, but I don't think you can take the research from one MPA and assume that all the rest are doing the same. So they need to monitor each and every one of them and see how they compare to see how they're all doing across the board.”

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants shared that local fishermen from Shelter Cove are often more aware of MPA boundaries, and traveling boats who are not familiar with the area are targeted by enforcement.

Participant Quotes

"There's a lot of people, especially out-of-towners, that don't know where they are [in relation to MPA boundaries] and I have seen Fish and Game up there actually monitoring them and asking them what they were doing and they said they were there on reports of people having crab gear or fishing in those closed areas. So they do monitor and they are watching."

19. MPA Overall Any additional comments or concerns about the MPAs and MPA management you would like to communicate?

Discussion Summary Participants shared suggestions and concerns related to the MPAs.

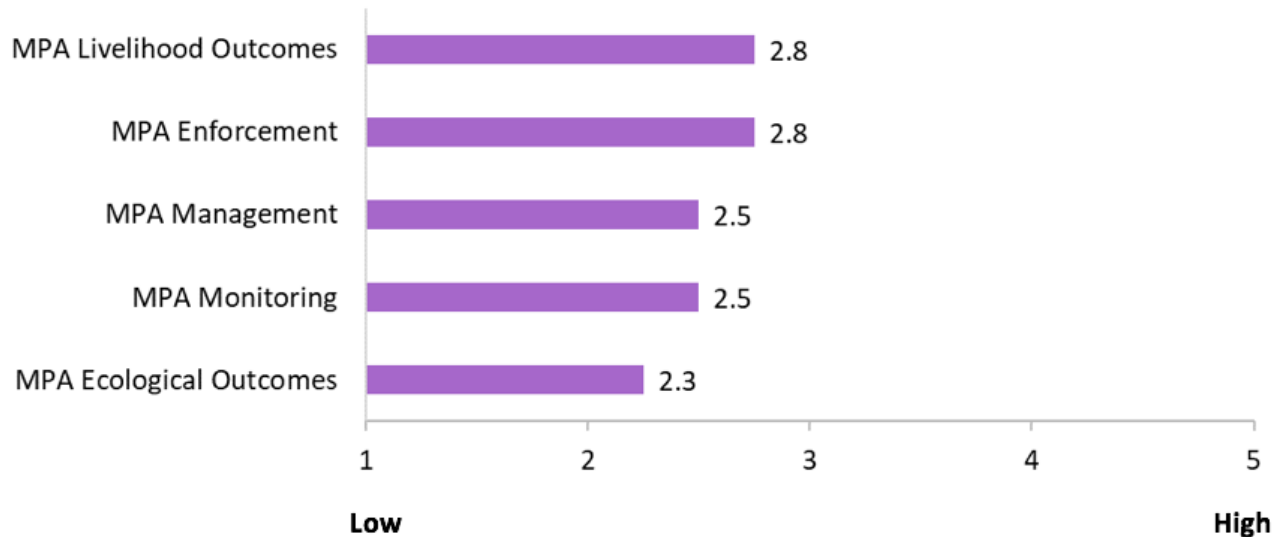
- One participant recommended that managers communicate how MPAs are helping fishermen and whether they are improving marine resource health. Another participant suggested there be more MPA monitoring and increased fishermen involvement in that monitoring.
- Several participants emphasized the importance of allowing fishermen to access more areas as a way to relieve current fishing pressure in other areas.
- One participant wondered whether the MPAs are permanent or if fishermen will be allowed to fish in them in the future.

Participant Quotes

"Show us what they're doing for our fisheries and how they're helping us as fishermen or [how] they're helping the fish. [. . .] Why not bring back those taggers or the [researchers] and hire people like [fishermen to] take them into those [MPAs] again? What's better than the word of mouth of fishermen? [. . .] I think that's one way to keep fishermen informed. [. . .] I felt like [being involved in MPA monitoring] was good, like they're actually doing something. They weren't just closing it down and saying, 'hey, you can't fish here.'"

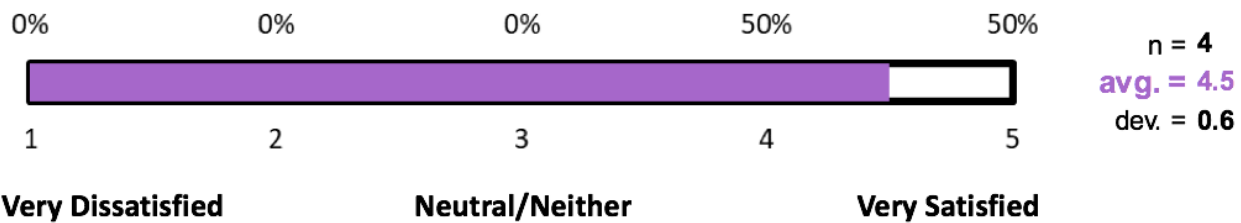
"I just think spread it out - depth and MPAs - just spread it out, let us access all those species [. . .] and let everybody fish all the way along the coast. I feel like we would have a [better] outcome that way."

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



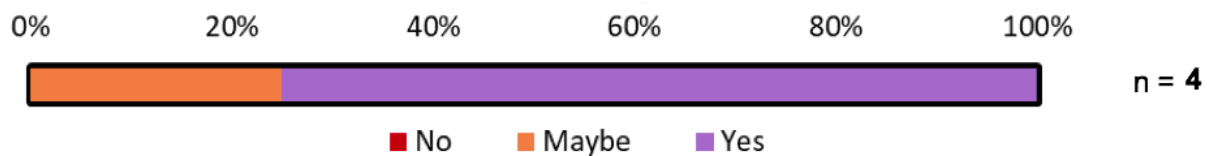
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the orange bar indicates the percent of participants who responded 'Maybe' to question 20b. The purple bar indicates the remaining percent of participants who responded 'Yes.' If participants responded 'No,' a red bar would appear.)



20c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Participants shared how they appreciated the opportunity to participate in the Shelter Cove focus group.

Participant Quotes

“Everything went well. Thank you for inviting us.”

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network ***Members of Fort Bragg Area's Commercial Fishing Community***

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port Group: Fort Bragg Area Ports

Date: Thursday, November 5, 2020

Participants: Harry Barnard, Grant Downie, Larry Knowles, Anna Neumann, Dan Platt

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

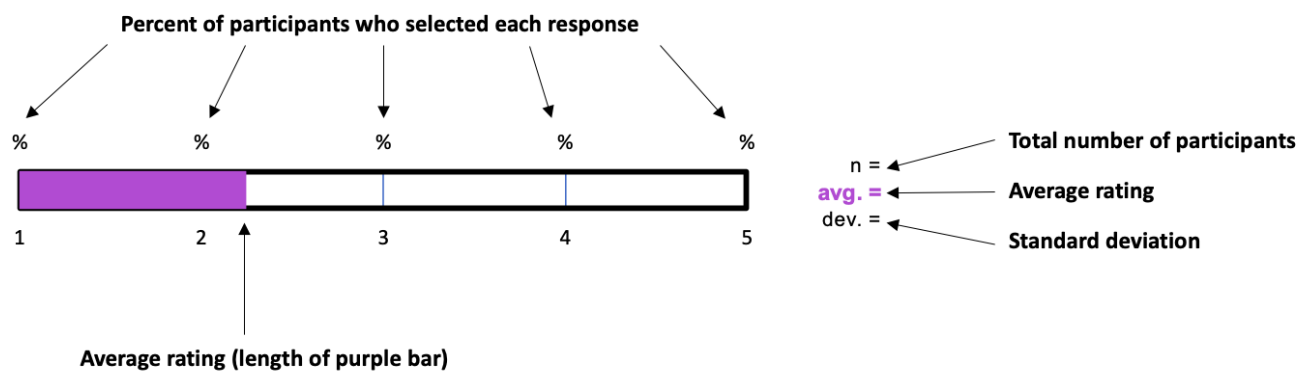
Overview

On November 5, 2020, five members of Fort Bragg area's commercial fishing community participated in the twelfth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 15 and 25 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

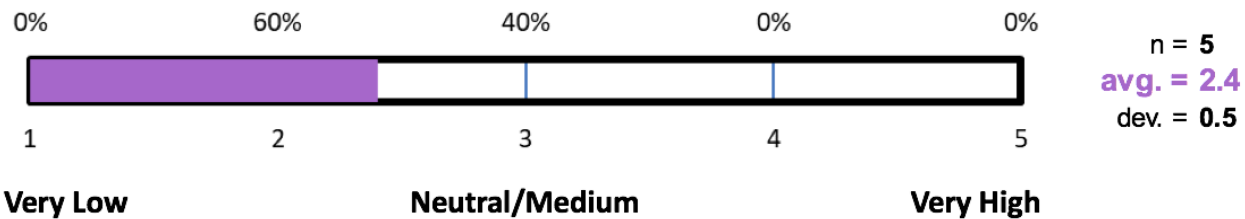
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2013–2017, North Coast](#)

Our Project Team would like to express our appreciation to the five members of the Fort Bragg area fishing community—Harry Barnard, Grant Downie, Larry Knowles, Anna Neumann, and Dan Platt—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants reported marine resource health varies across species, with some doing better than others. They stated fishermen in the Fort Bragg area tend to shift their target fisheries based on the relative abundance and market quality of the species during a given season, particularly for species like salmon and sea urchin.

- Several participants perceived nearshore and deeper nearshore rockfish to be doing well. One participant noted more permits for these fisheries are becoming available and believed this is an indication of improved species health. Two participants reported seeing an abundance of juvenile rockfish.
- One participant reported catch limits for open access lingcod have been raised, which they attributed to increased species health.
- One participant shared a concern with regard to the health and sustainability of black cod, particularly related to abundance and size.
- Several participants characterized the sea urchin fishery as in collapse. One participant stated the 2019 and 2020 harvests were a fraction of the 2014 harvest. Another participant reported that while there is an abundance of sea urchin, most are not of market quality (i.e., urchin barrens).
- Several participants stated the lack of kelp has affected many fisheries, both commercial and recreational, in the Fort Bragg area.
 - One participant believed that without kelp, rockfish have moved to deeper waters. They stated more fishermen are targeting deeper nearshore species as a result of this movement, but questioned whether this will last given that juvenile rockfish require kelp beds for food and shelter. Another participant stated there is less kelp habitat to support fish development than there used to be.
 - One participant shared they are involved in purple urchin removal to help restore kelp and hopes for more widespread restoration efforts. Another participant discussed a small commercial market for purple urchin for use in fertilizer and ground cover. They mentioned they are attempting to expand the fishery to support the creation of a purple dye for animal-based fibers, though the process to extract the dye has yet to be developed.
- One participant reported intertidal seaweed is doing well overall, though some species like laminaria in the Van Damme area have been affected by sea urchins. They stated that during years when there is sufficient upwelling and cooler ocean temperatures, intertidal seaweed

productivity increases. During ‘blob’ or warm water conditions, they must cover more area during their three-month harvest period to supply their business inventory for the year. They added these warm water events are also felt across fisheries.

Participant Quotes

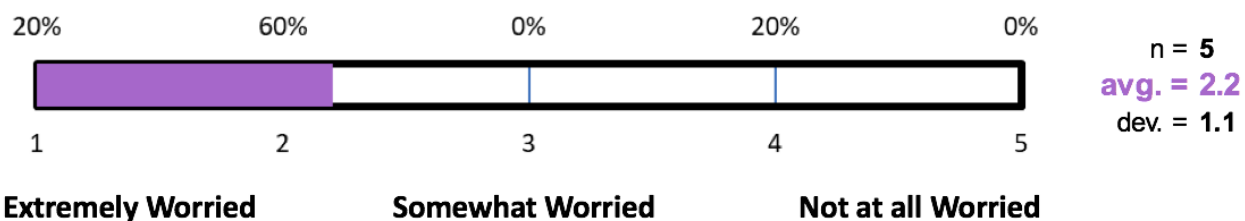
“I have been doing some shallow nearshore fishing and I've actually been encouraged by the fact that I am seeing some undersize rockfish. Which to me is a good sign because some of the other fishermen were really concerned about the kelp not being there for the nursery for the small fish.”

“[For] black cod, [. . .] the size of the fish and the amount of the fish I don't think are as bountiful as they used to be. Some people I know are actually traveling a little bit farther rather than just going straight out to set their gear. So, things unfortunately don't seem to be looking too up, in my opinion.”

“The red urchin industry up here is in complete disaster. Our 2019 harvest for the Fort Bragg area was one percent of what it was in 2014, so that has been a pretty steady decline. So far this year, we're almost to two percent of 2014, so we're doing a little bit better. But that is no comparison to how well things were before this [urchin] disaster.”

“Overall, the intertidal seaweeds are doing well. This year was a really great upwelling year, and because the water temperatures were so cold, there was really great productivity [. . .] When the water temperature is warmer, seaweed productivity even in the intertidal zone diminishes. And when that happens, [you're] covering more territory to get the amount of seaweed that [you] need.”

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Several participants expressed worry with regard to declining kelp cover and abundance. They indicated kelp is important throughout the marine ecosystem and, without it, there could be cascading negative effects felt across fisheries in the long-term.

- One participant commented on the resiliency of the ocean and its ability to bounce back after periods of poor resource health. They stated fishermen must be optimistic about the long-term health and sustainability of marine resources given the cyclical nature of the marine environment.

Participant Quotes

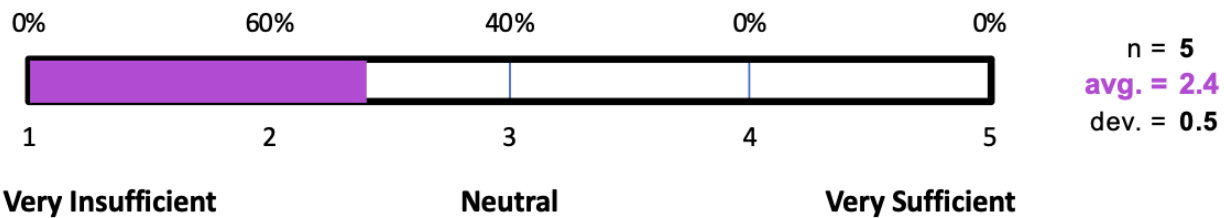
“The fishermen I talked to are moderately worried about what's going on. If we don't get kelp back, it is going to create quite a problem with the ecosystem we have here.”

"The kelp serves as a nursery for a lot of fisheries. So even though some fisheries may still be doing well, I think that if in the long-term the kelp doesn't come back, it'll have more widespread effects."

"I like to think that the ocean is a lot more resilient than we think and over the years, I've seen an amazing ability of the ocean to repair itself. We definitely had better ocean conditions this year than we have in the last few. I think that's part of being a commercial fisherman: you have to be optimistic."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants indicated it is difficult to access a range of fisheries due to the financial barriers to obtain fishing permits and gear. Participants also identified seasonal restrictions as another limitation to accessing target species.

- Participants reported the ability for fishermen to diversify is insufficient because most fisheries in the Fort Bragg area like nearshore, deeper nearshore, and Dungeness crab require permits and, in some cases, specialized gear, which can be expensive.
- Several participants highlighted the complexities of accessing certain fisheries as a result of management restrictions.
 - One participant discussed the Dungeness crab fishery, which has experienced season delays due to increased levels of domoic acid and the elevated risk of marine life entanglements.
 - One participant attributed the variability of salmon landings in the Fort Bragg area from year to year to seasonal restrictions. Another participant stated salmon fishermen in the Fort Bragg area need to travel south of the port to catch salmon due to seasonal restrictions. They explained for those that do not travel, accessing the resource can be difficult.

Participant Quotes

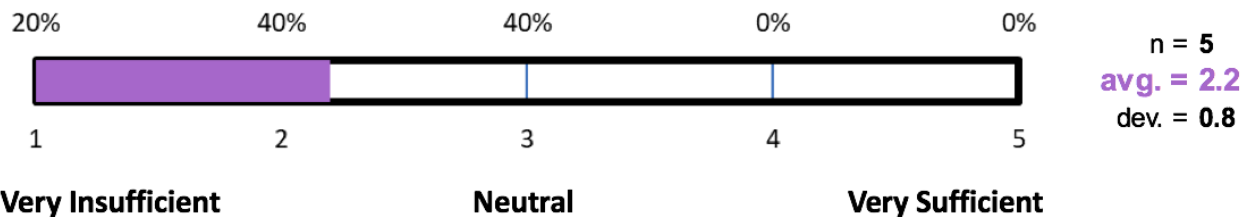
"I think the biggest problem is that if your fishery starts collapsing, it's just not easy to switch into something else. If you're doing urchins, you're not going to be able to switch into crab. You're going to be able to go into rockfish if you can get those permits when they come around but, again, they're expensive. And then you've got to buy your longlining gear and you need a new hauler. And is your boat set up for live fish? It's not an easy switch unless you already have a multi-purpose vessel."

“As for getting into the nearshore or deeper nearshore or even the crab [fishery], it all just comes down to money: you can recruit yourself into the industry, but you need to have major money somewhere else to get you into it in the beginning. For a deeper nearshore permit, you might be looking at \$20,000, a nearshore is probably going to be around [\$70,000], and I want to say a crab permit is almost up to \$100,000.”

“There are a number of different fisheries that go on in this port [. . .] the focus of the fishermen has definitely changed. Sea urchins were big for a while in the past. 2013 was a big salmon year. So there's been these ups and downs in the different fisheries. We had a really limited season for this area for salmon this year; most of the salmon were landed in ports south of us.”

“There are portions of this fishing fleet that are doing very well. Some of our salmon fleet is a traveling fleet and was able to travel down south and fish salmon and at least a few of those guys ended up having pretty good salmon seasons. But then again, the boats that don't travel or chose not to travel didn't have hardly any fish. The troll fishery, I think, is actually doing pretty well, mainly because of some recent regulations that the [Pacific Fisheries Management Council] has done that kind of freed up their fishing area.”

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants reported income from fishing alone is not enough to support fishermen’s livelihoods, especially for those who primarily target sea urchin or are unable to participate in a diversity of fisheries.

- Several participants stated fishermen whose main fishery is sea urchin cannot make a livable income due to the poor quality of the species and, as a result, have had to take on other jobs outside of the fishing industry.
- One participant explained fishermen’s inability to diversify leads to insufficient income from fishing, but that insufficient income also leads to an inability to diversify.
- Another participant indicated it is difficult for someone to harvest seaweed as their only source of income because seaweed harvesters must put in a lot of time and effort to build a business that is able to support a livelihood from seaweed alone.

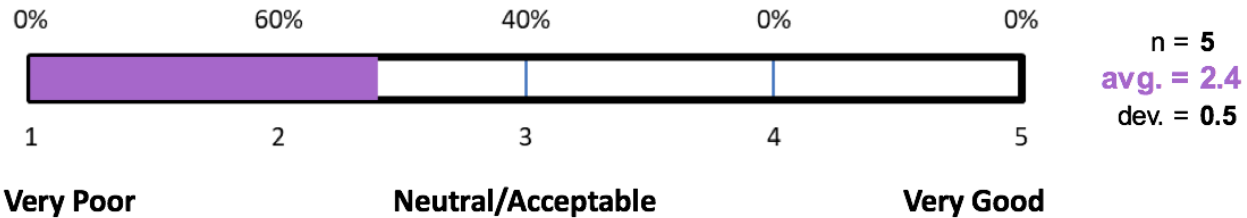
Participant Quotes

“The [sea urchin] industry cannot support the livelihoods of those guys. The ones that didn't diversify by fishing other fisheries, they got land jobs and have been making enough at their land jobs that they don't need to consider coming back to the fishery until it can sustain a paycheck.”

"There's not enough money coming into our port because fishermen can get stuck in one fishery where they can't diversify into something else because the permits are so expensive."

"Few people [can make their] sole living off of [a] seaweed business. [Those that do] work it so hard and have employees."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants indicated fishermen in the Fort Bragg area rely on a few buyers, including a select number of small, local direct-to-consumer markets. They reported the markets for more common types of fish (e.g., salmon) are relatively stable, and the sea urchin market is dependent on the quality of the harvest.

- One participant identified three main fish buyers in the Fort Bragg area. They believed one buyer gets a good amount of business from local fishermen while another has experienced a drop in the number of staff and is down to about two employees due primarily to the declining sea urchin fishery.
- One participant identified a local, direct-to-consumer seafood market in Fort Bragg that moves around 500 pounds of rockfish, 300 pounds of lingcod, and 150 pounds of black cod/sablefish during the summer months. They acknowledged this is not a high volume compared to other markets since it is mainly serving the local community. Another participant added this is an important retail market for the port.
 - One participant explained customers are more likely to purchase fish they recognize like salmon or lingcod as opposed to black cod/sablefish. They stated customers can usually be encouraged to buy black cod after they are told more about it, including how to cook it.
- One participant explained that, in recent years, the number of buyer/processors for sea urchin in the Fort Bragg area has decreased from over four down to two. They stated when urchin are of market quality, there is strong demand by Fort Bragg buyers. However, under these prime market conditions, they reported the two remaining buyer/processors have been unable to accommodate everyone who is bringing sea urchin to market. They also added most sea urchin is currently staying domestic because of the low volume being harvested due to the poor fishery conditions detailed on page 3 (i.e., urchin barrens, low kelp abundance).

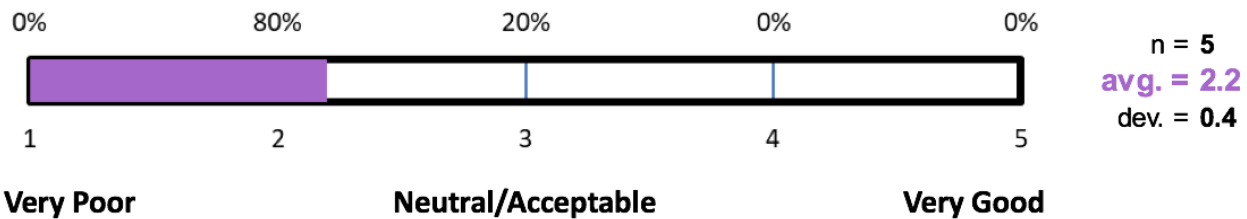
Participant Quotes

"I really see three main fish buyers [. . .] in the river. [. . .] I know [that one of the buyers has] dropped in the number of staff that they have, it used to be a booming plant and now it's just [two employees]."

“Usually if we can talk to someone about fish, like if a customer comes up and they don't know what to buy, you can sell them [black cod] nine times out of ten. [. . .] They have no idea what it is... they've never heard of it. They've never had it before. But once you give them the spiel on how great it can be, then they'll buy it. But there's just no [local] market for it.”

“Speaking for the urchin industry, we have two buyer/processors in the river. Years back, we had three. Years before that, four, and so on and so on. It's just kind of trickled down to the two now. So there is a good market to get rid of our product, if there is good product. But at the same time, when it was a boom and there were a lot of people doing urchins, just the two processors couldn't keep everybody going 100 percent and did have to limit some guys.”

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants indicated infrastructure and services that support commercial fishing operations in the Fort Bragg area are poor due to lack of available, reliable, and well-maintained key infrastructure like hoists, haulers, and fuel.

- One participant reported there is no public hoist available, though fishermen can sometimes access a hoist through a buyer or processor. However, they explained buyers and processors will often expect a percentage of earnings in return for the use of their hoist. Another participant identified a hoist and related infrastructure in the harbor that is poorly maintained.
- One participant stated a new hauler has become available for smaller boats.
- One participant stated access to the fuel dock is limited and the price for fuel tends to be high. When purchased at a gas station, fishermen must pay a road tax even though it does not apply to boats.
- One participant stated mechanics are very limited and there is only one mobile boat mechanic in the area.

Participant Quotes

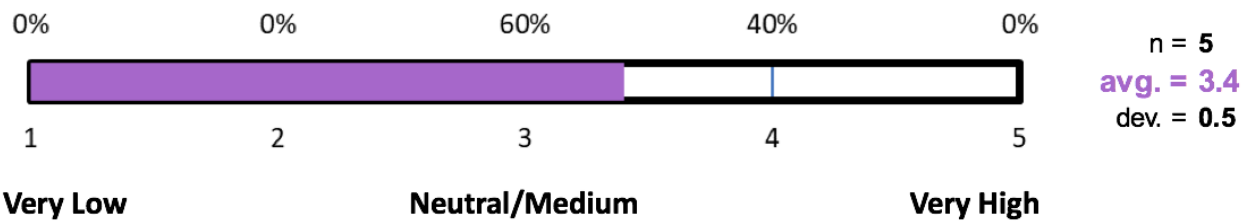
“We don't have a public hoist for fishermen to do direct or wholesale, or anything like that. If you want to use a hoist, you need to go through a buyer or processor, someone that owns a dock, and then usually they want a cut off the top. The fuel dock is just one fuel dock - the tide can affect you; the price of the fuel affects a lot of people. [. . .] So, infrastructure-wise, I think we're kind of hurting.”

“There was a gentleman [. . .] who was a big player in the harbor, and he owned the building the [hoist] was connected to. He died [around] a year and a half ago, and the [hoist] after that really fell out. [. . .] It was just a shaky infrastructure to start with and then when he passed away, no one really took over that whole building in that area. It's kind of sinking into the harbor itself.”

"[The price of fuel] is high. I'm a gasoline vessel, so it's a dollar more a gallon. And when you're buying it from the gas station, you're paying road tax... we're not driving on any roads, so a little bit of a monopoly there."

"Mechanics in our port are few and far between. We have one local mobile mechanic and that's about it."

7. COVID-19 Impacts How disruptive do you think COVID-19 has been to your port's fishing operations?



Discussion Summary Participants indicated some fishermen in the Fort Bragg area have experienced moderate impacts as a result of the COVID-19 pandemic. Several participants reported a drop in overseas market demand for species like black cod, while others discussed shifting market structures for sea urchin and increased demand for seaweed.

- One participant shared how one local, direct-to-consumer seafood market experienced a significant increase in sales following a sharp drop at the beginning of the pandemic. They stated current sales are comparable to, even surpassing, those of previous years.
- Several participants described the poor export markets for dead black cod/sablefish due to COVID-19 restrictions. They believed low prices have led many fishermen to drop out of that fishery even though it was once among the main fisheries in the Fort Bragg area.
 - One participant added the local, direct-to-consumer seafood market is one of the only markets they can sell dead nearshore species to, but volume is limited given that it is a relatively small market. In addition, they reported there has not been much of a market for deeper nearshore species.
- One participant noted a shift in the markets to which their sea urchin processor sells, from sushi bar distributors to wholesale and retail markets (i.e., grocery stores). They believed this shift is due to people making sushi at home since restaurants are closed because of the pandemic.
- Similarly, another participant reported an increase in seaweed sales following the issuance of stay-at-home orders.

Participant Quotes

"Everything kind of crashed right around the start of COVID. And then after that, it's just been absolutely slammed. We're at numbers selling fish that we were at last year, if not surpassing in these past couple of months on what we're selling. We thought it was going to be really slow, and we can barely keep up."

"The price for dead black cod has been really low for quite a while now and it's not looking like it's going to go up any time soon. And [this] was a pretty big fishery before the price on it crashed for Fort Bragg [. . .] There's some fishermen that just completely dropped out of [the black cod] fishery [. . .] The global market is export to Japan and that, for various reasons, has

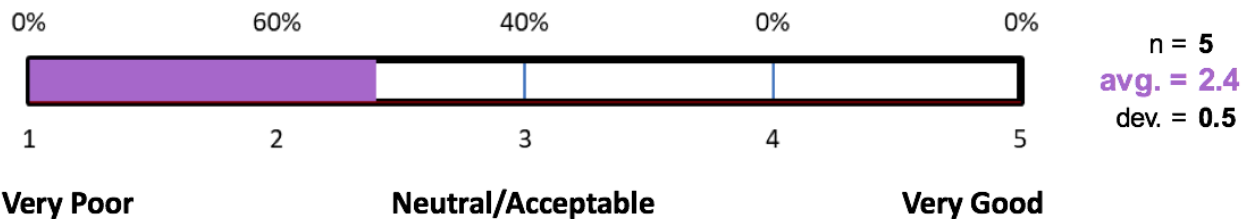
been really weak [due to COVID-19 restrictions], and the domestic market is pretty limited, so [those dropping out of the fishery are] mainly because the exports aren't happening.”

“COVID has changed the markets that our processor’s selling [sea urchin] to. Instead of going through distributors that would sell to sushi bars, he's been selling more to wholesale units and supermarket-style things. I think a lot of the people have shifted to just buying uni trays and making sushi at home compared to going out to a sushi bar.”

“People have more time to cook. And so basically, as soon as shelter-in-place hit, [seaweed] sales went up about ten percent, and it's maintained that.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Participants indicated there are significant financial barriers to entering and remaining in the fishing industry as a captain. They reported finding good crew members is hard primarily due to low wages.

- Several participants reported it is difficult to recruit new entrants/captains into the fishing industry because of the high costs associated with having to purchase a boat, fishing license, and permits, especially for the nearshore, deeper nearshore, and Dungeness crab fisheries. One participant was encouraged to see younger people who are able to put in the time and effort entering and remaining in the industry. In contrast, they have noticed older fishermen retiring or leaving the industry due to the complexities of management restrictions.
- One participant identified non-transferable permits in the sea urchin fishery as a barrier to recruiting new entrants. They also noted many divers have dropped out of the fishery because it is not viable due to the poor market quality of sea urchins in the Fort Bragg area.
- Several participants reported that while many fishermen are no longer fishing black cod/sablefish, most have remained in the industry and have turned to other fisheries. One participant was unsure whether those who decided to leave the fishing industry altogether have taken other jobs or have left the Fort Bragg area.
- One participant believed entrance into some fisheries can be difficult because fishermen must be willing to create a business and put in the time to market and sell their product. They stated some businesses are run by older individuals who have spent years building and maintaining their companies, but believed they would be able to find someone to take over their own business if they choose to retire.

- Regarding crew, one participant believed the ability for deckhands to find jobs in the fishing industry is relatively easy but added they do not earn enough to purchase permits and become captains themselves.
 - Several participants indicated recruiting good, competent crew members is difficult for longer than one fishing season. Another participant added working on a boat is not like a typical 9 to 5 job due to the nature of the work and hours required.
 - One participant mentioned they are encouraged by the number of younger crew members entering the deeper nearshore fishery.

Participant Quotes

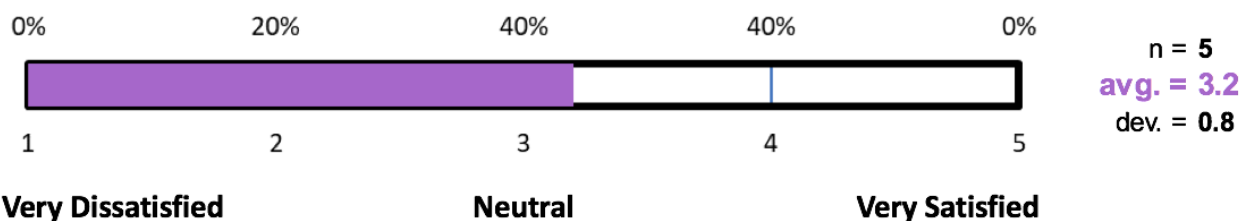
"I have actually been kind of encouraged that there are [young] people entering the fishing business in Fort Bragg who are coming in and purchasing boats. For the most part, they've been pretty successful because they're young and hard working people. There are also a lot of the older fishermen that are retiring or just disgusted with the whole thing and doing something else."

"For a long time, there have been 300 [sea urchin] permits for California - it's a non-transferable permit and to get a permit, your name was put into a lottery [which] has now become ten to one: so ten permits need to retire for one to go out. So that is making it kind of hard to get into the fishery as a new diver. The average age of the urchin diver is about 60 years old. Of the 300 permits, I think there's about 30 that are of the younger age."

"[There are] a lot of businesses [with] older people who have been in it for a long time. But I think the [. . .] industry has always been very limited because everybody has to really be willing to establish a business and have a viable business and then harvest year after year to sustain that business or to manage the inventory needs for that business."

"[Deckhands do] not make enough to get into [their] own vessel, and then if [they] leave the captain that [they are] with, who else is going to hire [them]? What is the season going to be like? [Will they] have to travel fish? Do [they] have the ability to travel fish as a person? The idea of travel fishing means that it's not sustainable in this port because then [the deckhand is] actively leaving to go to a different port."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Participants indicated that generally, the positives of working as a commercial fisherman outweigh the negatives, though there is a lesser sense of job satisfaction and security among crew members.

- Several participants shared the perspective that fishermen tend to enjoy what they do despite the day-to-day uncertainties. One participant believed being a fisherman is better than having an office job.
- One participant mentioned that job satisfaction for a deckhand is connected to being able to work on a boat while making enough money to support a livelihood. They reported the level of stress for crew can be high due to management decisions that affect their ability to work (e.g., delays in the Dungeness crab fishery).
- Reflecting on their experience with other crew members, one participant stated deckhands are often not satisfied with their jobs in the fishing industry because it is a highly demanding work environment (i.e., long days on the water, heavy workload, investment of time and energy does not reflect amount of income).

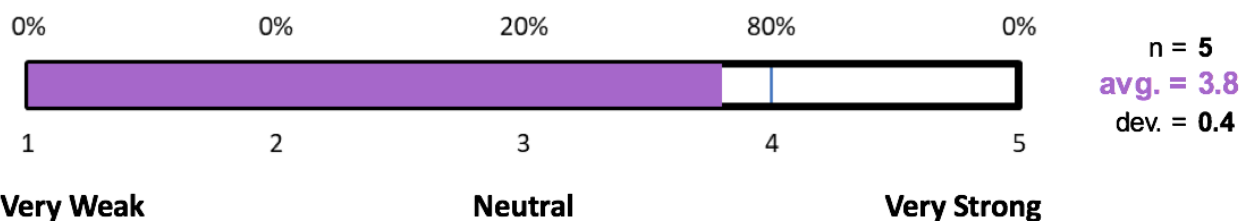
Participant Quotes

"I look at fishing, and I know a lot of other people do too, as a lifestyle; it's not so much of a job. So even if we aren't doing good and the industry isn't the best, we're still happy with what we do [. . .] The stress might be high: we don't know how well the next day out is going to be when you go fishing. But we're fishermen, that's what we are."

"A day on the ocean is better than a day in a cubicle."

"I put 'Dissatisfied,' and this just goes back to the ability to get on a boat that's going to make [crew members] a lot of money or even a fair amount of money in a fairly short season. The level of stress is pretty high, mainly [for] fisheries [that] are based around [Dungeness] crab. So if it's going to open, when it's going to open, how long the season is going to be, what the price is going to be - all of that."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants felt social relationships among fishermen in the Fort Bragg area were strong due to fishermen's ability to work together and their readiness to communicate and engage with each other.

- Several participants reported there is shared camaraderie and empathy among fishermen, which is built on the understanding that some fisheries will do better than others from time to time but, at the end of the day, they are all in the fishing industry together.
- Participants stated fishermen are willing to help each other through information sharing and problem solving. One participant shared the example of fishermen who are involved in policy processes updating others on management decisions and developments. Another participant added they are appreciative that local fishermen are community-minded and see value in communicating with those involved in other fisheries.

- Several participants indicated the local fishing community is a friendly environment. One participant who did not come from a fishing background stated they felt welcomed entering the port community.

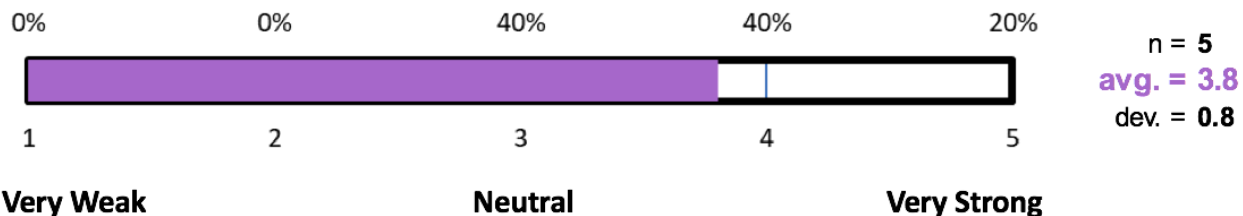
Participant Quotes

“Socially-wise in the port between fishermen, I think it's better now than it's ever been. Every fishery that is in our harbor has had really good years and has had really bad years, now including the urchin industry. So in a sick fate, it's created pretty good camaraderie between the guys because we all realize that nothing's perfect in any of the fisheries that we have.”

“In terms of fishermen talking to each other and communicating with each other, I feel like it's pretty good in our port. A lot of the fishermen will come to me with questions about management [. . .] I feel like it's a pretty friendly port. If somebody needs some help, they'll get it.”

“The port in general is a really great community to be in to just problem solve and get involved or just be open to what's going on in other fisheries. People are very community-minded as far as sharing information [about other fisheries] and I'm always interested in what's going on in the others. So I feel I'm always grateful for that eagerness.”

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants reported relationships with external groups range from neutral to very strong. They stated support for the fishing community varies by type of external group and across fisheries. Participants indicated some fishermen are more involved in policy processes than others.

- Several participants were frustrated about the relationship between the fishing community and external groups like environmental non-governmental organizations (NGOs) and government agencies (e.g., California Department of Fish and Wildlife (CDFW)). One participant identified a sense of mistrust between fishermen and environmental NGOs due to the marine life entanglement and crab gear issue. Another participant stated there is a misunderstanding among fishermen of how fisheries management works. Through their involvement in the Pacific Fishery Management Council, they try to share their knowledge of management and policy with other fishermen.
- One participant reported management agencies and NGOs have become more involved in the sea urchin fishery due to the sea urchin/kelp disaster. They added divers are more willing to collaborate with outside entities in an effort to work toward a solution to reverse sea urchin decline in the Fort Bragg area.

- One participant indicated fishermen in the Fort Bragg area are willing to engage with people (e.g., academics) from outside the fishing community.
- One participant shared there is participation in policy processes among certain fisheries to help inform and adapt existing regulations and guidelines to fit the changing industry. However, they expressed frustration with the lack of direct response from CDFW and the California Fish and Game Commission.

Participant Quotes

"It's my sense that there's a lot of distrust [in environmental] NGOs [. . .] in the Dungeness [crab] fishery right now because of the whole whale issue [. . .] And the thing with the management is more of a misunderstanding [among fishermen] about how it works. So I try to share with people how it actually works, but they [environmental NGOs and CDFW] can both be very frustrating."

"As for relationships with nonprofits and government, I voted 'Strong': with this whole kelp disaster and [the urchin] fishery being in a disaster, [the] fishery has been getting more attention than it ever has. And the commercial urchin industry and the divers in it are more willing to share their experiences and work together with other groups now more than ever."

"The [. . .] broader group that I'm involved with is looking at management and policy statewide [. . .] so we have a strong policy group happening. And so I'm feeling good about that and I'm feeling good overall about the relationships between the main [fishery] businesses here on the coast. But as far as relationships with the agencies, I did 'Neutral' [. . .] Right now, we're in the process of dealing with some kind of interim stuff with [CDFW] and with the [California Fish and Game] Commission. And so far, we've had to do lots of banging on doors, like reminders."

Well-Being, Overall/Additional Comments

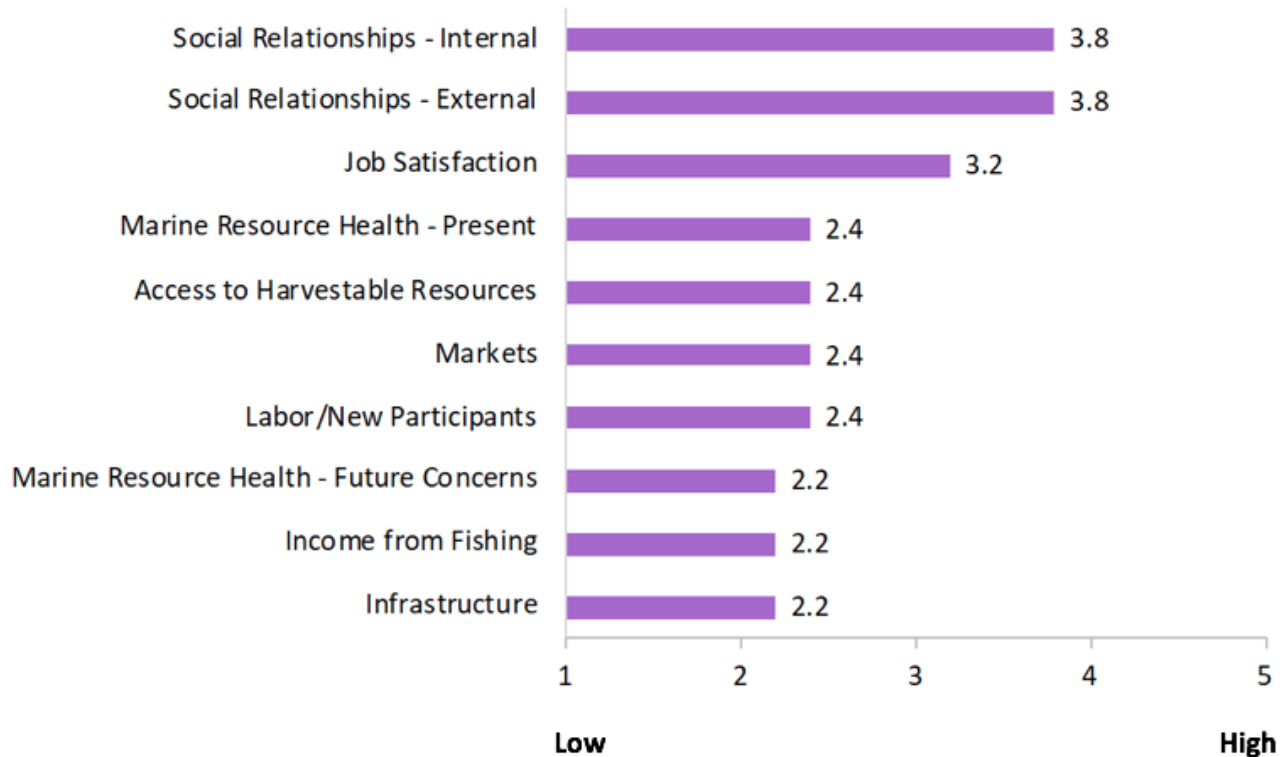
12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary (Due to time constraints during the focus group, participants were not asked these questions, and so did not discuss their responses.)

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

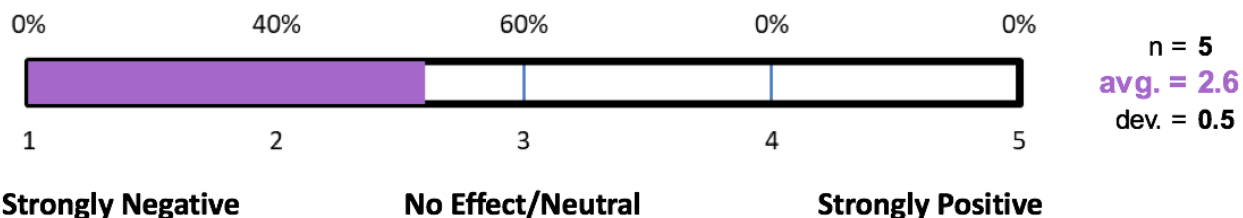
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants indicated MPAs have had no effect on migratory species like rockfish. However, they believed MPAs have negatively affected kelp abundance due to restrictions on commercial sea urchin harvesting in the closures, which have led to urchin barrens.

- One participant reported MPAs have not had any effect, positive or negative, on rockfish size or abundance because rockfish do not remain in the MPAs. Rather, they swim both inside and outside MPAs, whether that be toward food sources or away from predation.

- Several participants discussed the loss of kelp in the Fort Bragg area as a result of MPA restrictions on commercial sea urchin harvesting.
 - One participant emphasized this loss of kelp productivity outweighs any ecological benefit the MPAs could provide.
 - Another participant believed resource managers do not consider the role humans can play in maintaining healthy marine ecosystems. They recounted an instance when a sea urchin diver explained that kelp recruitment benefited by divers harvesting sea urchin, and stressed the importance of human activity for supporting kelp growth and abundance.
 - Another participant expressed concerns about the limited available habitat for harvestable red sea urchin (i.e., further offshore), which are relying on barnacle blooms for food due to the unavailability of kelp.
 - One participant suggested kelp enhancement techniques should be implemented to reverse the urchin barrens, either through sea urchin removal or relocation of urchin to healthy kelp beds in other areas.

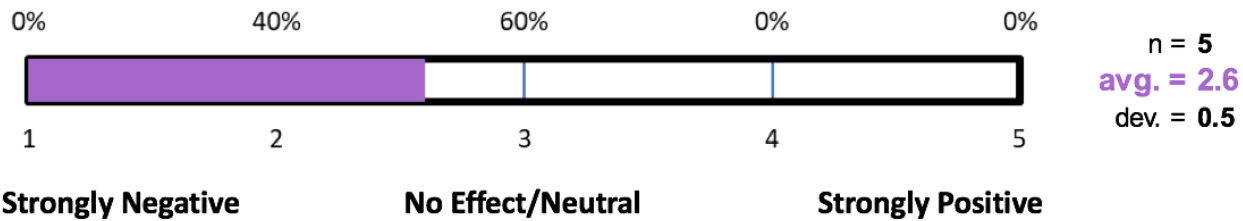
Participant Quotes

“When we were having discussions about MPAs before they were ever put in place, one of the things that [fishery managers] were promoting was that rockfish stocks are going to get bigger and more abundant. And I never did believe any of that back then, and I still don't believe it. All those fish have fins, they all swim. And just because you put an MPA doesn't mean that they're going to stay in that MPA. They're going to go where the feed is... the little ones are going to hide from the lingcod.”

“The loss of productivity from urchins in these no-take zones outweighs any effect of the MPA itself. In the early 80s when the urchin divers started to come in, I was talking to one of the oldest survey divers in the industry and they were seeing double recruitment of nereocystis [kelp] after the urchin divers came into an area and took urchin. And that happened year after year: it was a sustained increase of productivity as a result of urchin divers being in there. And the resource managers were not acknowledging that important benefit that urchin divers were giving. [Humans are important] for the health of the whole ecosystem here because we don't have a keystone predator, meaning the sea otter, and humans are the next best thing. And of course, the pycnopia sea star is no longer present for predating purple urchins now.”

“I was one of the guys that did a survey with [names redacted]. We did some transects in Caspar, and it's an urchin barren. What needs to be done [is] kelp enhancement, and ways to do that could be translocation to healthier beds, if there were healthy beds but, at present, there really aren't. In the interim, it would be removal.”

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary When discussing MPA livelihood impacts, participants reported sea urchin divers were more negatively affected compared to nearshore fishermen and seaweed harvesters.

- Several participants stated nearshore fishermen and seaweed harvesters in the Fort Bragg area were not heavily affected by the MPA network due to the placement of local MPAs, which were designed to avoid areas in close proximity to ports and harbors. Participants noted historical fishing grounds and seaweed beds near the port generally remain accessible to Fort Bragg area fishermen, unlike in Southern California where many primary fishing grounds were designated as MPAs.
 - One participant shared this is important particularly for fishermen who operate smaller boats who would not otherwise be able to travel to fishing grounds far from port, especially in inclement weather.
 - Another participant added negative livelihood effects were mitigated as a result of fishermen who were part of the North Coast Regional Stakeholder Group (NCRSG) during the MPA implementation process and who lobbied to keep important fishing grounds from being designated as MPAs.
- Participants expressed different views with regard to MPA impacts on sea urchin divers. One participant felt the MPAs have had minimal effect on fishermen due to the current state of the fishery, while other participants expressed concerns about the concentration of fishing effort in limited areas, the increased costs to travel further to suitable habitat, and the decline of sea urchin quality and adverse impacts on price per pound.
 - One participant noted some sea urchin divers had left the Fort Bragg area and moved to Southern California ports due to the compounding issues facing the local sea urchin industry.
 - Another participant highlighted the loss of a majority of fishing grounds for sea urchin divers in the Bodega Bay area as a result of the MPAs.
- One participant expressed the sentiment that when natural resources are regulated as they were during the MPA process, it seems inevitable that there will be adverse impacts for people whose livelihoods depend on those resources, like fishermen.

Participant Quotes

"In terms of the nearshore fishery, I felt like we did a lot better than some of the more south areas where the MPA [network] was implemented, especially Southern California, and one of the reasons was that during the process here, there were a couple of fishermen that were really vocal about the importance of leaving the areas close to port free, in other words not closing those areas, at least for the nearshore fishery and where I fish: I'm fishing a 17-foot Whaler, I'm not going to go 30 miles from port, especially in the wintertime because weather can change so quickly. But in that sense, I felt like we did pretty well for this area."

"It might have had more effect if the red urchin fishery was active and I was wanting to get into an area by the winery - that's part of the MPAs which we've all fished before - but it's not that big a stretch of the coast and that industry isn't really active now anyway."

"The habitat of the closures north of us is the same habitat that we're finding our good quality in for red sea urchins right now. So without the ability to go to those zones, we are forced to go back through the same deeper shelf we've already been hitting the last three years. So it's been an increased pressure on the spots that we can go to. It's a lower income and it's not as supportive for as many divers, which is why there's only about four of us now."

"[Traveling to rocky structure has] increased gas for our trips up north. You're going past a huge area where if you don't find the urchins up north, you can't jump your way back to the harbor. You just have to drive it all back."

"I feel like any time policymakers and fishermen get together, there's always a give and a take and I feel like it always ends in hard feelings, whether that be from the fishermen or from the policymakers, because you're having to compromise on something that is a livelihood which is hard to find a compromise about. [. . .] When we have to give up areas of the ocean, we have to undergo new policy regulations; there is going to be a feeling of hardship and mistrust because things are being taken away and it's directly affecting our livelihood. It's directly affecting our ability to make money, and I think that's just the nature of the beast when you have to start regulating things like marine resources."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants identified several MPAs that have negatively affected Fort Bragg area fishermen, particularly sea urchin divers. They also identified MPAs that have affected fishermen in nearby ports or inhibited good spots for kelp restoration. Several participants reiterated that Fort Bragg area MPAs were strategically placed and did not severely affect historically important fishing grounds. They believed local fishermen fared better than Southern California fishermen who lost significant fishing area.

- *Ten Mile State Marine Reserve (SMR)*: One participant reported this MPA has resulted in significant loss of productive fishing grounds for local sea urchin divers. Another participant

stated the northern end of the Ten Mile SMR houses one of the few areas with good kelp habitat and quality sea urchin in the Fort Bragg area. One participant recounted how salmon fishermen are affected by this MPA as they are no longer able to follow a school of salmon through/beyond the MPA.

- *Russian Gulch State Marine Conservation Area (SMCA) and Van Damme SMCA*: One participant stated while fishermen are able to commercially fish in these MPAs, MPA regulations prevent these areas to be included as sites for kelp restoration.
- *MacKerricher SMCA*: One participant noted the MacKerricher SMCA was an MPA before the MPA network was established, and the MPA implementation process only updated the regulations for this MPA but did not reduce access for fisheries that are allowed in this and other SMCAs.
- *Point Arena SMCA and Point Arena SMR*: One participant reported Point Arena fishermen were heavily negatively affected by these MPAs, particularly sea urchin divers who used to harvest these areas because they were productive fishing grounds for red sea urchin.

Participant Quotes

"I would say the Ten Mile SMR [which] has Kibesillah rock in the center of it. That would be the biggest hurt to the urchin fishery. It doesn't seem like a big area, but we did lose a lot of ground there."

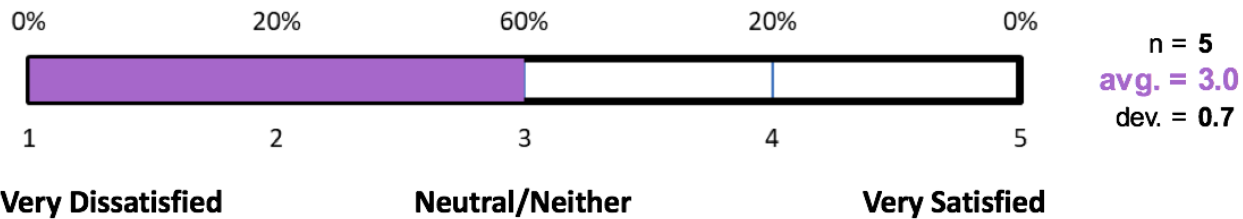
"[Ten Mile SMR], that's also a good area for urchin diving, especially with the diving that we've been doing. So it wasn't always a good kelp bed up there, but the offshore reef and the bottom substrate with sand and reefs inside the sand, that's kind of where we're finding our quality today."

"That one [Ten Mile SMR], when we were salmon fishing, [we'd] follow a school of salmon up the coast, and as soon as we got to the Ten Mile SMR, then we would have to tack out and go around that SMR. And it seemed like the salmon would not come out the other end, even though they had been traveling north, so it was almost like they seemed to know that they were OK in there."

"The Russian Gulch [SMCA] and the Van Damme SMCA aren't necessarily a problem because we can commercially harvest in those areas. But in building this kelp restoration project that we're working on now, there was some sort of language that they didn't want mitigation or restoration done in those zones. So that shut out a couple good protected coves that could have been eligible for kelp restoration."

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants indicated there is an absence of information regarding MPAs and MPA management being made available to fishermen. As a result, fishermen are not aware of or do not understand MPA management. Some participants knew more about MPA management than others because of their involvement in policy processes, suggesting there are inconsistent lines of communication about MPA management between decision-makers and the fishing industry.

- One participant acknowledged efforts being made by groups like the MPA Collaborative Network to share MPA information and resources. However, they did not believe information about MPA management is successfully reaching fishermen, which then leads fishermen to believe there is no information available. Another participant believed one reason for the lack of communication is the collapse of local news organizations that used to disseminate information about MPAs.
 - One participant commented that fishermen turnout at MPA meetings is poor, presumably because they do not feel welcome in a room where most people represent the interests of environmental NGOs and other environmental groups. Another participant added MPA and fisheries-related meetings in general should be brought to the fishermen and held on boats or docks.
 - A participant reported they were satisfied with MPA management and efforts being made by resources managers to work with fishermen, but acknowledged this was due to their involvement in fisheries management discussions and processes.
- One participant indicated there are limited opportunities for fishermen involvement in MPA management and fisheries management more broadly. They shared concerns that fishermen's knowledge is not valued or seen as a credible source of information by agencies. While there has been a slight shift toward utilizing fishermen's knowledge, there continues to be a disconnect between CDFW staff and fishermen.
 - Several participants highlighted the lack of attention fishermen's knowledge received during NCRSG discussions. One participant felt the process failed to consider the essential role humans play in maintaining healthy marine ecosystem function (i.e., trophic cascade). For the participant, this reinforced the lack of active adaptive management occurring within the MPA network.
- One participant shared how the people who run the Point Cabrillo Lighthouse, located adjacent to the Point Cabrillo SMR, help to educate the general public about MPA and marine resource management.

Participant Quotes

“When it comes to management now, I don't see anything changing. From the fisherman's point of view, [it's like] ‘here is your MPA. Here's where it's going to be. It's closed. So now it's just kind of done.’ I mean, as a fisherman, we don't know that there's management going on, [whether] laws are changing or anything like that.”

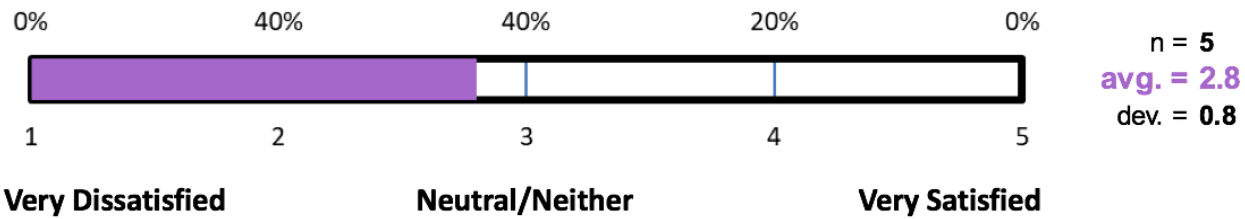
“Maybe there just wasn't enough communication afterwards about the monitoring that's going on within [MPAs], the programs that are happening, the resources that fishermen have, everything. [Including] the MPA Collaborative Network, [which] just hosted a community outreach forum for MPA enforcement and it was poorly attended... there's only so many folks that keep showing up to these things. And we seem [to be] failing to reach the broader group of fishermen in what is going on with our MPAs and the management and how we're adapting, if we're adapting, what that adaptation looks like.”

“It's important for managers to get down to the docks and not always request that the fishermen come to the uncomfortable meetings. [. . .] It would be amazing to have these meetings on the back deck of boats and on docks. In my experience, where I've learned the most is not in a classroom or in a formal setting. It's literally in a dive bar over beers, speaking to [fishermen] about the things that they know of... [for example, name redacted] has got more time around this ocean than I could ever dream of.”

“There's a real problem with communication between resource management/white collar folks and fisheries folks. And so I've seen, especially in the case of people who are in the agencies, a skepticism [about the] knowledge that fishermen or anybody doing any kind of harvest work can bring to the table. [. . .] But even now, for instance, [. . .] it's clear that the agency isn't recognizing the historical body of knowledge of people who have been [fishing] here in the same [areas] for the last 20 or 30 years.”

“During the MPA process, [name redacted] was trying to get the Science Advisory Team out to check the longest running [pre-existing] MPA that was [closed to urchin harvesting]. For about a year and a half into the process, nobody was biting, and then finally some people went out into this area and they were shocked at the urchin barren... and it was good habitat, it was adjacent to some fabulous kelp beds. And it was almost like a line that you could see from where the urchin divers were able to maintain smaller populations of urchin and where the urchins were just barren. And so that's really a function of MPAs in our area [. . .] urchin divers were really not recognized as serving a really important ecological function [. . .] The acknowledgement of humans as replacing the sea otter as a keystone predator wasn't in that conversation.”

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants shared a range of perspectives, from dissatisfied to satisfied, when considering the monitoring of the MPA network.

- Several participants shared their dissatisfaction with the poor dissemination of MPA monitoring study information, while another participant was aware of the MPA studies being conducted.
- Several participants stated they only know of MPA monitoring through personal communication with people involved in MPA research. They have not received any other correspondence regarding MPA monitoring studies or results from those studies from CDFW or other agency leads.
 - A participant suggested MPA study results be more accessible and better communicated to fishermen.

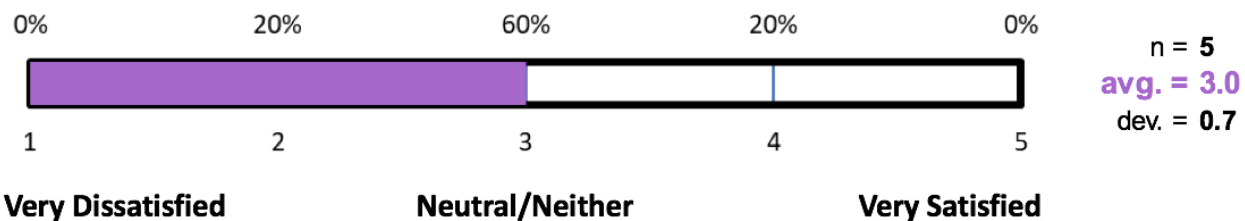
Participant Quotes

"The only reason I know there's monitoring going on is because I see the divers going out in their Boston Whaler. Otherwise, it's not posted [saying] 'hey, they did a survey dive this weekend and they saw this many more fish than ever before.' That's not public knowledge, I don't think."

"I wish it was more open - the data that's collected from the monitoring. I might be naive, it might be public knowledge, but I wish it was more accessible to maybe fish stock numbers inside the MPAs, urchin population numbers, kelp and algal growth, things like that."

"I just know all of the monitoring efforts that are going on and how much work is being put into it. And I'm personally satisfied with it, but it makes me sad to see that it's neutral and dissatisfied [across the board]."

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants were generally neutral with MPA enforcement due to being unaware of enforcement activities.

- One participant reported seeing illegal fishing in the Point Cabrillo SMR and long-term campers and illegal dumping in the area around the Big River Estuary SMCA. They believed CDFW does not have the capacity to enforce each MPA, but added illegal fishing occurs outside the MPAs as well.
 - Another participant commented they were not aware of the occurrence of illegal fishing in the MPAs or the lack of MPA enforcement.
- One participant thought fishermen are responsible for enforcing the MPAs rather than CDFW wardens. They shared how fishermen from out of the area will ask local fishermen for information about the MPAs to orient themselves with the location of MPA boundaries in the Fort Bragg area.

Participant Quotes

“As far as enforcement of MPA regulations, I'm dissatisfied with them. I see poaching time and time again in the Point Cabrillo [SMR], I see issues with the Big River [Estuary SMCA] all the time. I'm down there on the weekends swimming and it's just a free for all. We've been on calls with State Parks, and State Parks is just so fed up with it that they're just not enforcing it at this point.”

“I think it's hard to put more [responsibilities] on [CDFW]. We've got a huge area that the wardens cover here. And for them to only focus on these small MPAs where people should know better to stay out of, it would take away from them looking everywhere else. I've seen poaching in the MPAs, just people fishing, not knowing or blatantly not caring. But then I've seen poaching out of the MPAs, so it's all down to the person themselves.”

“I thought the fishermen themselves were enforcing [MPA rules]. If they saw somebody fishing in the MPA, then they would let the guy know ‘hey, you're not supposed to be there.’ The fishermen that I've talked to from out of the area have actually come to me and asked if there were maps: they wanted to know where they were so they didn't have to fish in there.”

19. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants shared final thoughts regarding the MPAs, including better communication of information and collaboration with fishermen, suggestions for MPA enforcement, and recommendations for adaptive management.

- One participant asked that MPA-related information, including results from monitoring studies and notice of upcoming MPA meetings, be better communicated to fishermen via email.
- Another participant suggested MPA boundaries have visual markers to help with enforcement since not all boats have GPS, and those that do may not include MPA locations.
- Several participants supported the idea of fishery managers and sea urchin divers collaborating to help address the sea urchin grazing issue in MPAs.
 - One participant recommended divers be allowed to harvest sea urchin in MPAs following completion of a sea urchin quality survey. They believed this would help relieve sea urchin grazing pressure on kelp and promote a more balanced marine ecosystem.

- Another participant suggested relocation of sea urchin from the MPAs to areas outside the closures since there is likely poor quality sea urchin in the MPAs currently.
- One participant shared there was a great deal of discussion about invasive species and seaweed during the MPA planning process. They felt adaptive management should be in place to allow people to harvest invasive, overpopulated species from the MPAs.
 - Another participant suggested CDFW could work with an environmental NGO like Reef Check to support the removal of invasive species (e.g., purple urchin, seaweed) in partnership with fishermen and citizen scientists.

Participant Quotes

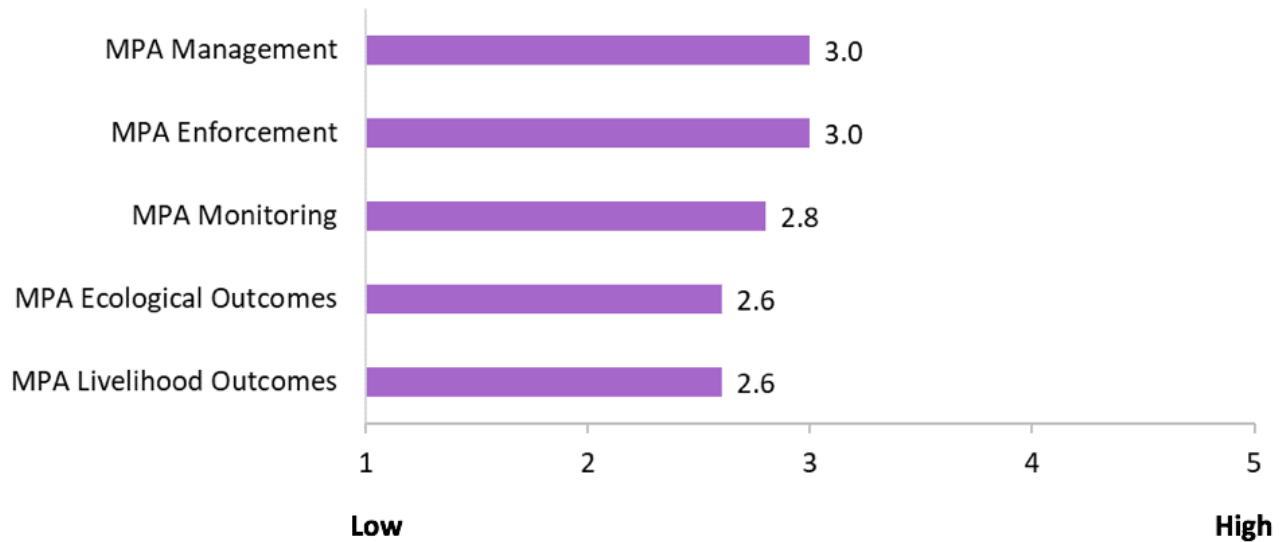
"We'd really like to know or have access to the results from the monitoring that's going on. If [CDFW and the MPA Collaboratives] can send me an email when these meetings are happening - I haven't been getting notice of those - then I might attend some of those meetings."

"I mentioned this at the last enforcement meeting that I went to, the Mendocino MPA Collaborative meeting: I think visual boundary markers are necessary. Not all vessels have a GPS. Not all vessels have an updated chart plotter that shows you the boundary lines. Kayak fishermen don't always have that. So to help with enforcement, if there were visual boundary markers on the MPAs that you could see from the ocean, I think that would help a little bit."

"Hopefully MPA management can work together with the commercial urchin industry and by going off of quantity of urchin populations in the MPAs, we can open the area and allow a sustainable harvest after a quality survey is done. So once quantity is known to be high of the urchins and the quality is established to be a good product, we can open an area and let the urchin industry in to reduce the grazing pressure on the MPA and keep it more of a balanced ecosystem."

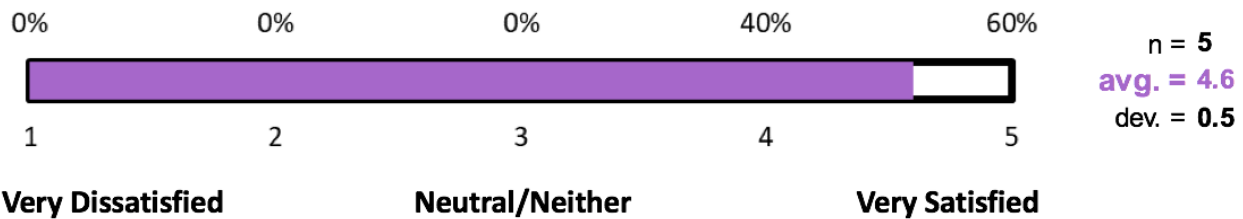
"I think that translocation [of sea urchins] should be considered from the MPAs to other areas. [. . .] I know that there was quite a lot of talk when the North Coast region was in process about this topic. And it's, in fact, a topic right now with invasives because there's not really an easy way for management agencies to come up with a way that somebody can go in and actually make money off of a species that's overpopulated or invasive. They haven't come up with a way to make that co-exist because they see that group as being an interest group that then wants to continue to do a certain level of harvest. And there's not an easy way to make this kind of adaptive management shift that I've seen."

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



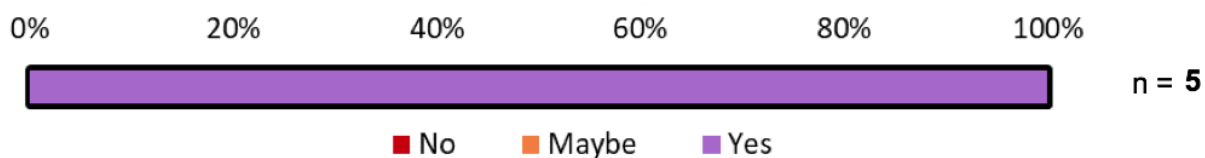
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the purple bar indicates the percent of participants who responded 'Yes' to question 20b. If participants responded 'No' or 'Maybe,' a red or orange bar would appear, respectively.)



20c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Participants were satisfied with the focus group process and indicated they had a positive experience during the virtual meeting.

- One participant appreciated how there was not much lag or other technological disruptions among focus group participants.
- Another participant found the technology training at the start of the meeting helpful. They stated it helped orient them with Zoom functions.
- One participant found the Project Team's facilitation of the focus group satisfactory.

Participant Quotes

"This was a pretty great group for this, not a lot of people talking over each other, not a lot of people with bad connections. It went very smooth."

"I really appreciated the Zoom tutorial because there are little things that I tend to forget, like the raise hand [function]. So it was really great that you did that whole tutorial and walked us through that."

"Great job in facilitating this kind of interaction."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network *Members of Point Arena's Commercial Fishing Community*

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Point Arena

Date: Monday, February 1, 2021

Participants: Bill Arana, Peter Bogdan, Bill Houston, Joey Rose

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

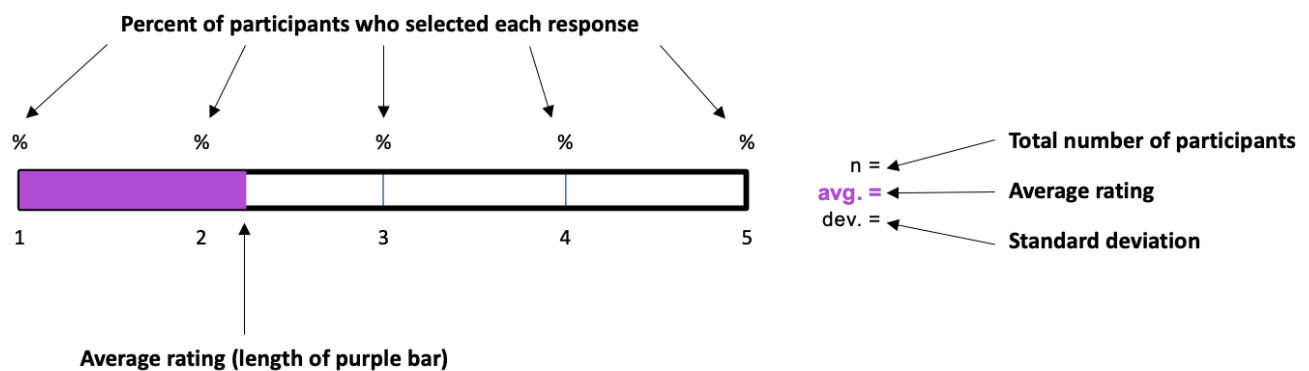
Overview

On February 1, 2021, four commercial fishermen operating out of Point Arena participated in the sixteenth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 15 and 24 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

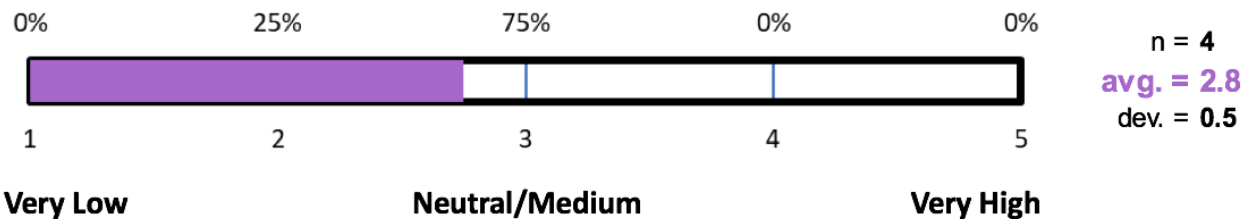
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2013–2017, North Coast](#)

Our Project Team would like to express our appreciation to the four Point Arena fishermen—Bill Arana, Peter Bogdan, Bill Houston, and Joey Rose—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants reported the current health and sustainability of marine resources varies across species and that while some species have benefited from management, others, particularly salmon, may require better management to help improve species health.

- Several fishermen believed rockfish are doing well and attributed good species abundance to low fishing pressure in the Point Arena area.
- Several participants expressed concern about low salmon abundance and stated that more needs to be done to help improve the overall health of the species.
 - One participant perceived human impacts upstream, including logging and water diversions, to have had a negative impact on the species.
 - Another participant shared the belief that the salmon hatchery system should implement different methods to ensure juvenile salmon are able to travel downstream with less risk of predation.
- One participant considered sea urchin abundance to be very low and noted how the fishery is not viable for divers to target the species. They stated that observed kelp increases may help to improve sea urchin abundance.
- One fisherman indicated that their 'Neutral/Medium' response had more to do with habitat and water quality than species diversity or abundance.
- One participant explained that each generation has different expectations of marine resource health due to the phenomenon of 'shifting baselines.' A younger fisherman may consider current conditions to be abundant whereas an older fisherman may have a different point of reference as to what they would consider abundant.

Participant Quotes

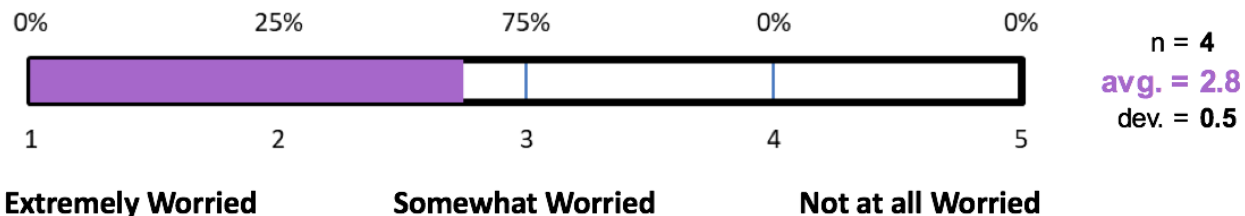
"I could say it's really terrible, but we are out there and we're catching some fairly good catches once in a while. The live fish fishery has been managed pretty well. Rockfish are supposed to have reached rebuilt status."

"For salmon, you can't expect something that was wild [to be how it] was back then when we've done so much today with the canals and the logging and everything. I mean, look at the rivers now. Look at where all the water goes in Sacramento. So I think that there needs to be a lot more done on helping those fish. And I feel like the problem's pretty simple. And I see they're doing more recently and we've noticed more fish. So I think if they could step it up a little bit

more, that would be better for the ocean. Everything might not be 100 percent wild, but once the fish gets back into the ocean, it's as wild as it gets."

"No one could say that the sea urchins are in good shape right now. Sea urchins, at least in the Point Arena area, are so low that sea urchin divers are not even going after them. But we have been seeing some kelp come back and maybe the sea urchins are on the way back? I'm not sure."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary When asked about the long-term health of marine resources, participants expressed some worry about management and future ocean changes.

- One participant mentioned that commercial dragging for rockfish has reopened at certain depths and shared a concern that this may have an impact on the reefs where rockfish breed.
- Several participants expressed concerns related to changes in weather, climate, and ocean conditions.
 - A couple of participants emphasized that warmer water temperatures and ocean acidification may decrease the availability of bait fish. With fewer bait fish, salmon are less likely to travel to where fishermen can catch them.
 - One participant highlighted how the presence of domoic acid has delayed and shortened Dungeness crab seasons and this continues to be a worry into the future. They added how the starfish die off is indicative of the fragility of marine life and questioned whether a similar mass die off event could occur with crab.

Participant Quotes

"The main thing is outlawing dragging, which unfortunately they just reopened. So all the [rockfish] breed out on the deep reefs and now they're all dragging them again, which is [a worry] for the future."

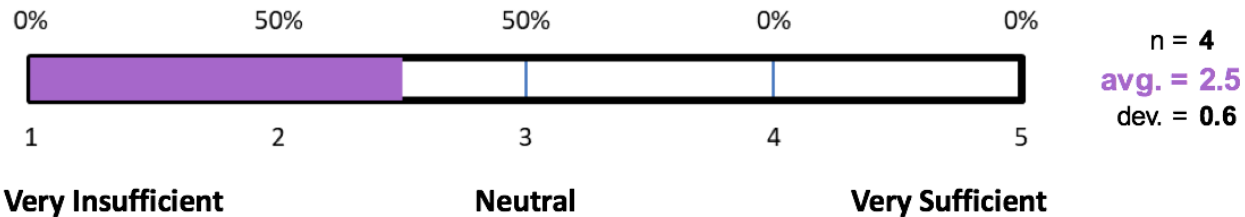
"I think that global warming is probably having an effect here, but I don't know what the long term effects are going to be. But it seems to be getting worse instead of better. So that makes me a little concerned about the future, because the warmer temperature does make it more difficult for the bait to come in. And if the bait doesn't come in, well, then the salmon don't come out, but the salmon are somewhere. So I think they're still living. They're still eating. And they just may not come in to where we can catch them."

"Ocean conditions are the main thing that are causing our worry because domoic acid's caused delays in our crab season for years and quality keeps the crabs too light to start and our seasons get shorter every year, so that's a main worry. And then we all saw the starfish die off, so how

fragile is life in this ocean? Could the crabs be next? We don't know, so you'd be a fool not to be worried, being a fisherman."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants identified several restrictions that inhibit access to commercial fish resources for fishermen from Point Arena with the most concerning being MPAs, especially related to the loss of local salmon trolling grounds. For a more detailed discussion related to MPAs and how they have significantly affected fishermen's access to marine resources, please see the **Discussion Summary** on pages 17 and 18.

- Several participants indicated that while there are permits available, they can be very expensive which makes it difficult for fishermen to participate in multiple fisheries. One participant suggested having a diverse permit profile is important because it provides the opportunity to make a living in the case when a fishery is closed or a season opener is delayed.
- One participant stated that inclement weather inhibits access for Point Arena fishermen who are unable to fish in dangerous conditions.

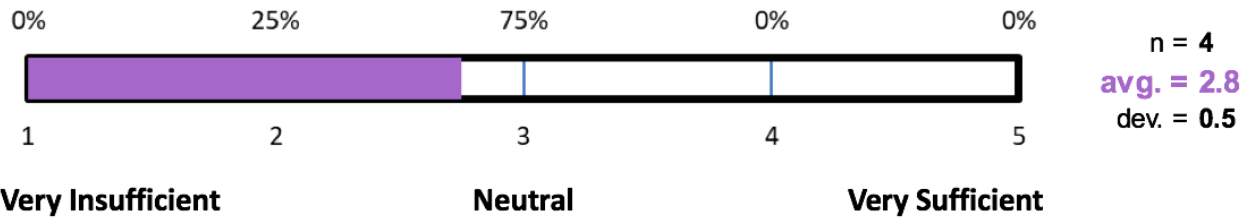
Participant Quotes

"I think we have plenty of access to permits and the ability to go offshore to catch a black cod or buy a permit to fish live fish. We have all the access at our fingertips. It's just the salmon fishery where we traditionally trolled and they put a marine protected area there. We can't go where we used to catch a lot; a high percentage of the fish we caught were right in that marine protected area."

"It's extremely hard [to participate in multiple fisheries]. I would say if you are a person that just wanted to get off and start fishing, that would be near to possible. [Well] not near to impossible, it's just a lot of money. Live fish permits are a lot of money, everything's a lot of money. So just to go for it and then not be successful [is a risk]. Crab didn't open for four months because of the domoic acid [and] we went four years ago in May, so if that's someone's only fishery, you're kind of screwed."

"Our port here in Point Arena is already hard enough with the weather and everything to get out of. Most ports will be working and we're stuck in because it's an eleven foot sea."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants reported that income from fishing ranges between insufficient and neutral, which is informed greatly by how long someone has been fishing and their related business expenses.

- Participants stated some fishermen need a second job or multiple permits to support their livelihoods, however others, particularly those who are older, may not need additional sources of income because they may have fewer expenses.
 - One participant indicated that whether a fisherman can support themselves with money earned from fishing depends on where they are in life and whether they have children to support or other expenses like house payments.
- One participant shared that they had to take on a second job to support their fishing business because they were losing money fishing.
- One fisherman felt they earn sufficient income from fishing only because of the number of permits they have. If they had any less, they did not think they would be able to support their family with only their fishing income.

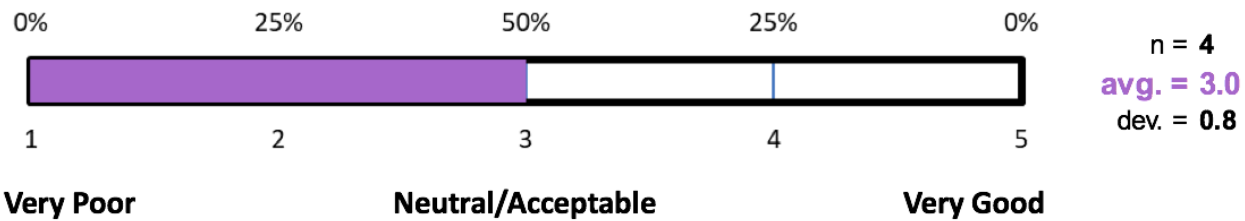
Participant Quotes

"It just depends what kind of a situation you have. Some of us are retired and our children are out of the house and maybe the house is paid off. But [name redacted] has two little girls and is yet to buy a house. And so I'd say somewhere between sufficient and insufficient."

"My joke that I've worn out over the years is that I had to pretend to be a professor for 37 years to support my fishing habits. I have an addiction to fishing. I would be fishing no matter how much money I was losing. My income tax would show that I've been losing money most years."

"On making money, I feel like I'm fortunate because I have so many permits. If I were just to have salmon and crab, I probably wouldn't make it with two kids. But because I have four [permits], I'm able to [make it]. The live fish permit helps a lot. So if you want to be a fisherman these days and that's your living, you've really got to have many options to do it anymore. There's not just one [permit] that's going to cut it."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants noted that the quality of the markets to which fishermen sell their catch ranges from poor to good depending on the fishery they are involved in.

- Several participants stated that while fishermen in Point Arena have buyers that come from the Bay Area, the access to and reliability of these out-of-area markets is challenging.
 - Due to the lengthy travel time between the Bay Area and Point Arena, one participant explained that fishermen must meet their buyers in the early afternoon, which limits their fishing window for the day. Another participant added this is particularly frustrating when fishermen are already limited on the number of days they are allowed to fish.
 - One participant stated that the alternative is also difficult because fishermen must drive their catch to markets far distances from Point Arena.
- One participant communicated how Point Arena fishermen catch more crab than they can sell locally. While this used to be the case for salmon, there is currently not enough volume to sell salmon both through direct markets and to buyers.

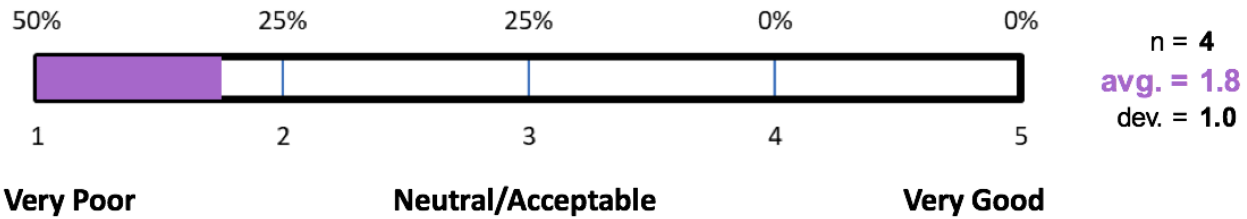
Participant Quotes

“Regarding the markets, I can see there's quite a bit of disparity [in responses], but we do have to remember that within just the four of us [in this focus group], we range all the way from one fishery to four fisheries. I'm one of the ones that fish only king salmon. And so it's not not quite so surprising that we have such a wide range of responses here.”

“At first I was going to go with ‘Good’ because there's a couple of fish buyers that we have that come from the Bay Area. That is great. But then when I [considered] ease of use, I changed my selection to ‘Poor.’ While we have a couple of great buyers, the whole process is just overwhelming. I mean, the idea that you have to be back by four o'clock to pull the boat out and, also, the guy that works [at the dock] wants to go home by four o'clock - he doesn't really want to stay late - it just narrows down that fishing window for the day to six, seven, eight hours at the most.”

“Some markets are good, otherwise we got to use the pier and come in at a certain time to get help. Otherwise we have to hand load all of our product into our trucks and drive it either to Fort Bragg or Bodega Bay, which is forty five minutes one way or an hour and a half the other way. [. . .] And the thought of just having to come in at four o'clock when you got one day in a month in the middle of winter to go make your money - it's pretty sad.”

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Related to the port’s infrastructure, participants discussed the poor availability, reliability, maintenance, and support of key infrastructure.

- When discussing the availability of key infrastructure, one participant mentioned that Point Arena has never had an ice machine.
- Several participants reported the infrastructure that is available is not well maintained, which leads to reliability challenges when running their fishing operations. One participant noted the presence of rust throughout the pier.
 - One participant suggested the local infrastructure has been better maintained in the past than it currently is.
- Several participants indicated that there is little financial support for infrastructure in Point Arena.
 - One participant shared that they are willing to personally pay for an electric winch for the skiff hoist that is currently manually operated. They are hoping for support from the city manager on this as it would improve their use of available infrastructure.

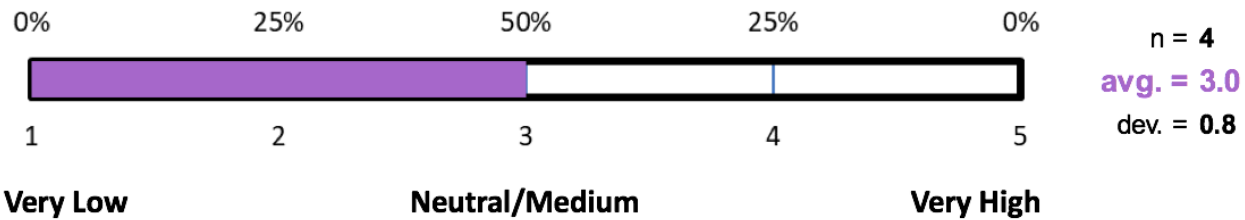
Participant Quotes

“I was actually working at the port there for almost 25 years, and so I got a pretty good grip on what the state of the infrastructure is and also the services. And that's why I went with ‘Very Poor.’ There's a lot of maintenance that they're behind on and that creates reliability issues. There's no financial support for the infrastructure. The availability of key infrastructure, well, we've never had an ice machine, for instance.”

“The pier, I'd say, is very bad. [It's] just not very well taken care of.”

“I use the big winch to launch my boat three or four times per summer. I used the skiff hoist for bringing my skiff in and out and bringing my fish in and out. So I do that manually right now. And [. . .] a really big issue for me since I lost my deckhand is that I would like to get an electric winch for the skiff hoist. I've offered to pay for it and [name redacted] has offered to put it in for me. And so hopefully we will get the acquiescence of the city manager's office to eventually make that happen. If that were to happen, that would improve the facilities significantly for me.”

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port's fishing operations?*



Discussion Summary Participants indicated that impacts from COVID-19 were experienced differently across fisheries, especially with regard to markets, but that fishermen overall were moderately affected by pandemic protocols.

- Participants shared different perspectives on the effects of COVID-19 on public demand for fish.
 - One participant reported that less demand made it difficult for fishermen to sell directly to consumers.
 - Another participant stated that demand for salmon increased with more people leaving higher populated areas (e.g., the Bay Area) and spending more time in and around Point Arena. As a result, they were able to sell at a higher price per fish.
- One participant recalled how the price for live fish dropped when restaurants closed because it is often bought and eaten in restaurants.
- With regard to Dungeness crab, one participant stated that prices dropped at the start of the pandemic but then markets picked up again. Even so, prices continue to be less than they were a few years ago. They also noted that fishermen have only been crabbing once this season due to a combination of poor weather and a delay in the season opener.
- One participant commented on the difficulty of following social distancing measures while working with a deckhand who is not necessarily part of their bubble or 'pod.'
- One fisherman indicated that commercial fishermen were prioritized as essential businesses/workers during the shut down and credited the harbormaster and city manager for allowing commercial fishermen to access the pier even though it was closed to the general public.

Participant Quotes

"With the COVID thing, I think 'Very High' because it's really disrupted our ability to sell fish to the general public. It just made it that much more difficult. There were a lot less people that wanted to buy it. And it's also been hard to negotiate the whole thing with your deckhand on the boat, without having the social distancing all the time and the impact of that with your family [and being able to] work that all out, it's just made it a lot more difficult."

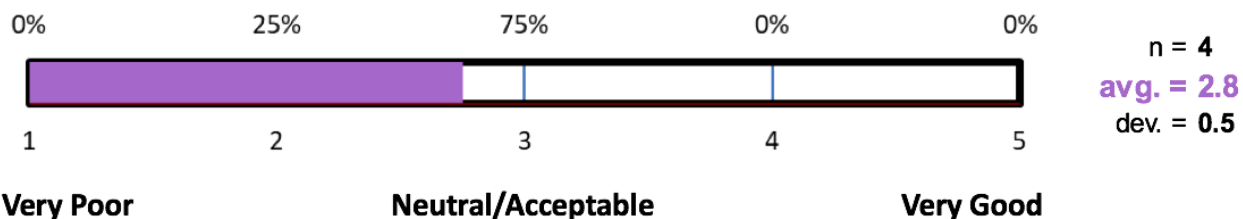
"In my particular case, what I found last summer with COVID around was that the demand for the salmon increased, not decreased. And I even had people say, 'oh my gosh, we've got more people up here in the area around Gualala and Point Arena and Sea Ranch. We have more people here now than we've ever had before; they're trying to get out of the Bay Area. You should be charging more for your salmon and not less.' And so I didn't see any particular problem with COVID and found that the markets were pretty good for the way that I sell the fish. I usually catch less and try to sell them to individuals as much as possible to get more per fish."

“The markets were definitely better on the salmon than they'd ever been. Sold them for a higher price than we ever had, just local. And the crab price has been down a little bit, it went down quite a bit right in the beginning of the COVID thing. But then [when] the buyers got ready to sell, the markets picked back up after a while, but we haven't been getting the prices that we got a couple of years ago. [They've been] a couple dollars less. [. . .] The price dropped to \$2.50 a pound for a couple of weeks and then gradually came back up to \$5 in the springtime. [. . .] That's good enough but, yeah, could be better.”

“I would certainly give the credit to the current harbormaster and to the city manager that we commercial fishermen were given full rights and kind of first dibs on space and [we were] given a preference even over sport fishermen in most cases. And so it was a little inconvenient to have to go around and take down the traffic control and the fences and gates across to come in and out [from the pier]. But other than that, we did alright during the COVID shutdown [. . .] At least they tried to make it work so that we could still go out and fish.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary When discussing labor, participants shared that, within the commercial fishing industry, it is more difficult to recruit and retain crew than it is for captains.

- One participant highlighted that while there are currently enough fishermen operating out of Point Arena to the point where the port could not accommodate any more, there is an overall need for deckhands. They stated that fishermen do not earn enough money from fishing to pay deckhands a living wage even if the crewmember is good at the job.
 - One participant commented that when they are unable to pay their deckhand, they offer them alternative means to compensate them for their work, like free fish or car maintenance.
- Several participants reported that due to the difficulty of recruiting and retaining new entrants into the industry, particularly crew, they will often ask family members to serve as deckhands.

Participant Quotes

“It's one thing for a fisherman who owns the boat, the captain, to come in and bring the boat in and get a mooring and that sort of thing. It's another thing to get a deckhand. So although we perhaps have almost as many fishermen as the port can handle reasonably, we sure don't have enough deckhands. But that relates back to what we were talking about earlier, about being able to have enough income to make a living. If there's not enough income for us to make a

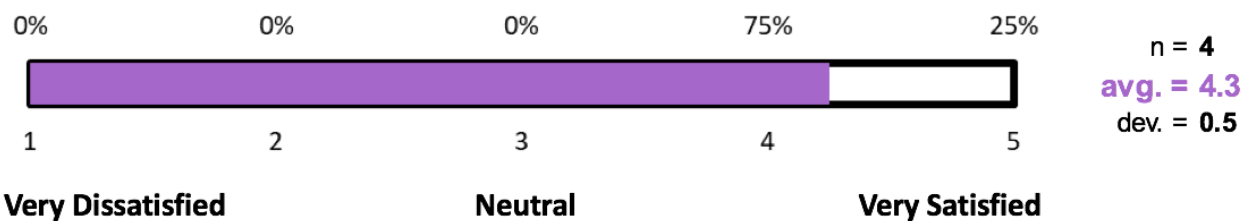
living, then there's also typically, very often - at least for salmon fishing - not enough income for a deckhand. And so it's not the same for a deckhand as it is for someone owning a boat."

"Sometimes you get your kids to work for you. I had my daughter fish with me. So right now, I've got a guy that I'm basically giving him free crab and I take him tuna fishing and anything else, maybe work on his car or whatever he needs. You do what you have to do to keep somebody on board."

"As far as recruitment for finding crew around here, it's difficult to say the least. I have a real good crew right now, but he's only around for another month and then he ships out to Alaska [. . .] I have two sons that I manually recruit when needed."

"Luckily I only need a deckhand for one of my fisheries, and that's my father. We work together, and so we do pretty good. I would probably be having a rough time finding the deckhand if I needed one."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Related to job satisfaction, participants indicated that the positives of being a fisherman outweigh the negatives.

- Several participants described their love for fishing and being on the water. They stated that they continue to fish despite having to navigate the California regulatory context, which can be challenging.
- One participant shared how support from other fishermen enhances their job satisfaction.

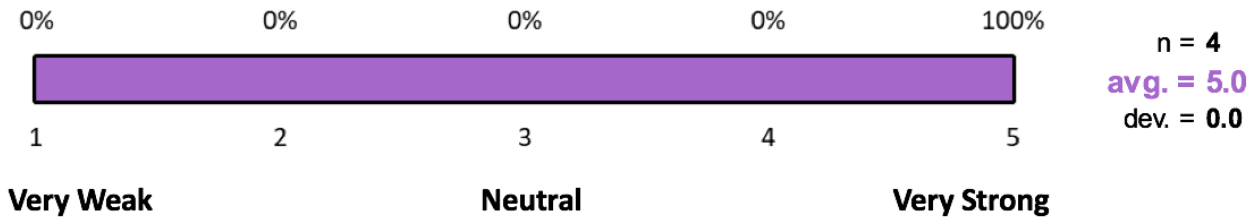
Participant Quotes

"I absolutely love the job. Every day I go [fishing], it's different, and it's always a good day."

"I love being out there. [Name redacted] once told a story when we were talking about how they [fisheries managers] were changing regulations and cutting us back on fishing. And he said, 'well, if they cut it back to where we have to go out there and fish in a rowboat, you and I would be out there anyhow because we're addicted.'"

"When I got my salmon permit, I was kind of worried about how much fish I was going to catch and how I was going to pay off the boat and whatnot. And [name redacted] said, 'we'll just go out there and have fun together.' And that was really great."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants felt internal social relationships were very strong in Point Arena compared to other ports because of the established trust, leadership, and ability to work together.

- One participant shared how there is camaraderie and healthy competition among Point Arena fishermen.
 - Another participant suggested that this is likely due to Point Arena being such a small and rural port where fishermen, who are like family, must rely on each other.
 - One participant stated that fishermen will turn to each other for assistance while out on the water before calling others (e.g., U.S. Coast Guard) for help.

Participant Quotes

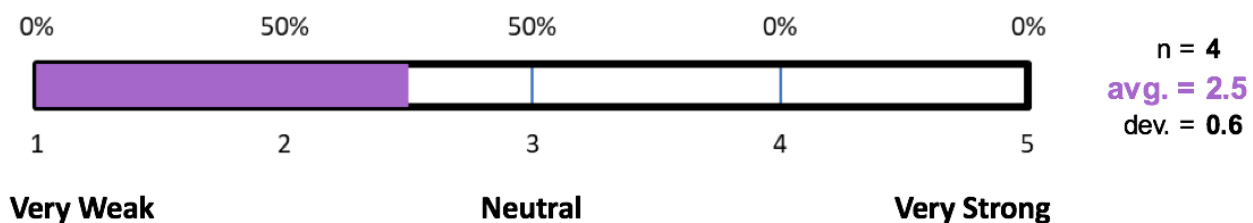
“Even though we perhaps engage in a little bit of friendly, unspoken competition from time to time, the fact is that the rapport amongst the fishermen, by and large, seems to me that it is really great and better than anything I’ve heard about in other ports and other areas.”

“As a fishing community, we [. . .] rely on each other, especially salmon. We’re basically all we have out there when it comes to being so far away from anything.”

“There’s only ten of us down there [who fish out of Point Arena]. We’ve known each other most of our lives, I’ve known [name redacted] since he was born, known his dad for 30 years before that [. . .] We’re all one family.”

“We do help each other out, help each other to catch fish. And if we have a breakdown, [name redacted] said ‘don’t call the Coast Guard, nothing ever good comes of calling the Coast Guard. Just call us. We’ll pull you in.’ And so we tow each other in and try to watch out for each other. [. . .] We’re a long way from the Coast Guard anyway.”

11. Social Relationships - External Overall, how would you rate the strength of the port’s relationship with external groups who could help support community needs?



Discussion Summary When discussing relationships with external groups, participants reported community support for the fishing community varies and that there is some engagement within the port in policy processes.

- Participants believed the general public supports the fishermen by buying their product at local grocery stores and through direct sales.
- One participant stated Point Arena fishermen have not been able to get grants for infrastructure improvements.
 - Another participant explained they are not getting the help that they need from the broader community in order to make these improvements.
- One participant reported that Point Arena fishermen have been involved in fishermen's organizations and that, most recently, some have joined the California Coast Crab Association (CCCA) following the Center for Biological Diversity (CBD) lawsuit regarding whale entanglements and the Dungeness crab fishery.

Participant Quotes

"We get a lot of help from the public buying our product, [. . .] the local grocery stores as well. I chose 'Neutral' just because we don't get much help from outside, but we do get help from the general public selling fish at local markets."

"We have not been able to secure any kind of grants at all, whether it be for infrastructure or any kind of services or improvements."

"We market a lot of fish around here. A lot of people eat a lot of fish from our few boats. And I know it's going to take a community someday to help us with this pier because we can't support the infrastructure with just six or seven boats working over it. But the tax base that the city has tried to grab a hold of - people are not willing to put 15 dollars per parcel up for a vote. So that's where we stand. I don't know where the infrastructure's going to come from, but it's in dire need."

"There are some fishermen's associations that we have been part of in the past. And there's one association that some of us bought into that raises money to fight a lawsuit from the Center for Biological Diversity. But other than that, we really don't belong to any kind of groups or have any support or interaction with other government entities."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants offered several instances where they believe managers could better take into account the needs of the Point Arena fishing community with regard to current fishery regulations and fishermen's need for financial support.

- One participant described the challenges of Point Arena being located right at the line between the Northern and Central Management Areas, which are used as a management tool for the Dungeness crab fishery. Under certain management restrictions, such as delayed openers and/or area closures due to elevated levels of domoic acid or poor quality or whale entanglement issues, Point Arena fishermen are forced to land their catch in other ports (e.g., Fort Bragg). This causes safety issues and additional costs that managers do not consider when management decisions are being made.
- Several participants reiterated the need for greater investment in the port's infrastructure, particularly among local and state government.
 - One participant mentioned that Point Arena fishermen have not received financial support from the state, given that two state MPAs border both the north and south edges of the port. These MPAs require fishermen to travel longer distances to access fishing grounds; they have never received gas tax money from the Department of Boating and Waterways to help compensate for this.
 - Another participant indicated that securing grant money will be critical to support the servicing and maintenance of the pier in the long-term.

Participant Quotes

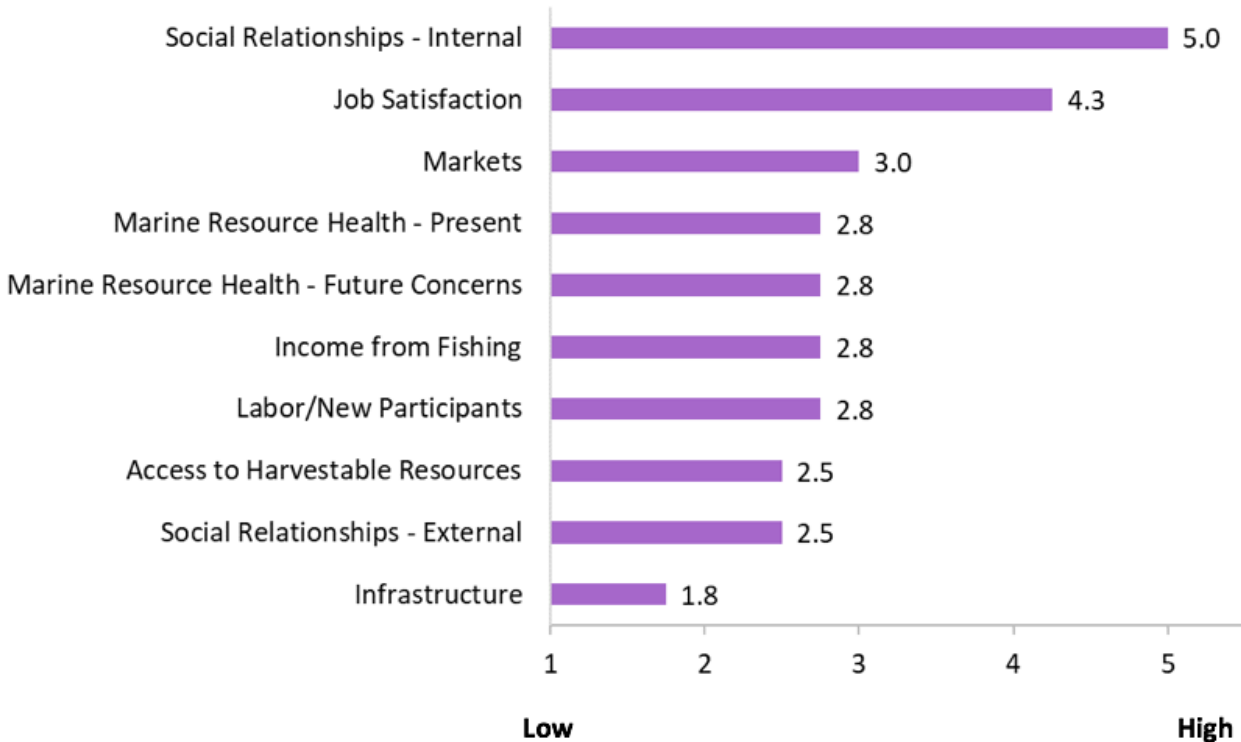
"I don't want to get off on a tangent here, but it seems like there's never a more appropriate time than this to complain about the lack of respect and consideration that we Point Arena fishermen get. We are essentially right on the line and when the [Dungeness crab] season is closed [. . .] north of the Point, frequently they sometimes close it south of the point, [well] we fishermen in Point Arena have somewhat smaller boats. We're not running with 35 to 45 to 50 foot boats. We usually use Farallones, and although those are rather seaworthy boats and are quite capable of going to Fort Bragg in rough weather, you sure wouldn't want to run up to Fort Bragg, and you certainly wouldn't run up to Fort Bragg for just a few things. And so it is very irritating that they have the audacity to tell us that if we catch our fish north of Point Arena, we need to land them north of Point Arena, which only means Fort Bragg. [. . .] That shows that they give zero consideration to the fact that we are located right here on the line."

"I would like to see the state invest a little bit in our infrastructure here, since they've got such a big investment with the two marine reserves on either side of our port. And, you know, we've never even gotten any of the gas tax money from the Department of Boating and Waterways or any of that. We just don't get any kind of help down there at all."

"[It] would be amazing to get more grants to help service the pier and just keep up on the maintenance, because it doesn't seem like it's going to be around much longer if it keeps going the way it's going."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

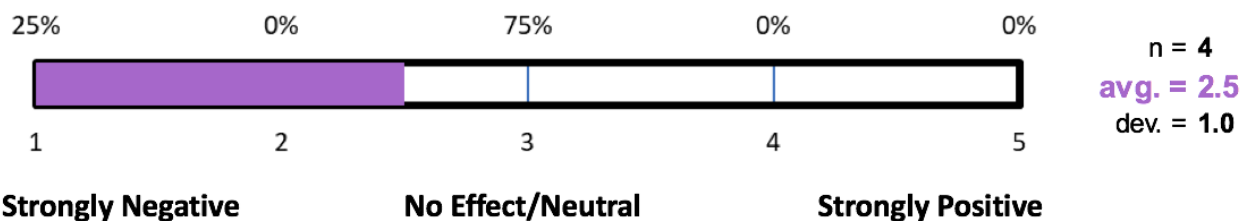
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants, some who have fished the Point Arena area for decades, indicated that the MPAs have had no effect on marine resource health inside or outside the closures.

- One fisherman perceived no noticeable change in rockfish size. Another fisherman questioned why MPAs would be used to protect mobile species like rockfish but added there is the potential for MPAs to help protect sedentary species like abalone and urchin.

- One participant reported the MPAs have led to an increase in fishing pressure in areas that are open to fishing. They believed that overall marine resource health would improve if there were more fishable areas.
- One participant emphasized that although the MPAs have not had an effect on the species fishermen are allowed to target outside of the closures, the MPAs themselves have led to a decrease in fishermen's overall catch because they can no longer fish those areas.
- One participant cautioned against attributing an increase in offshore quotas to the MPAs, stating that the MPAs likely have nothing to do with increased quotas because the closures are located within state waters.

Participant Quotes

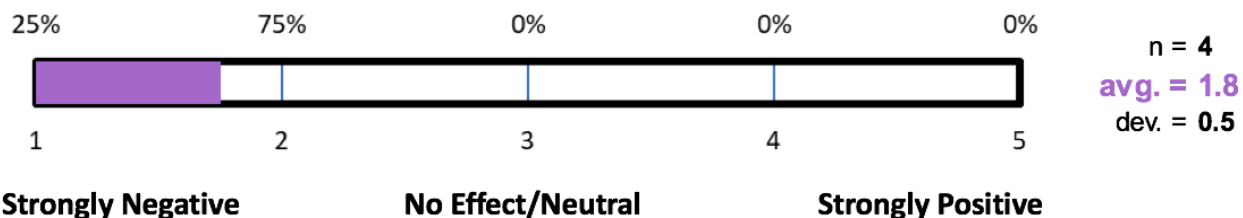
"When we're trolling for salmon, we have a pretty good idea what the rockfish are doing. And over the years with the MPA implemented, I haven't seen any change for bigger fish or more fish. It's been the same. Twenty years ago, there were a lot more rockfish. But since the MPA has been put in there, I've seen no change, no change at all."

"I could see [how the MPAs could] protect the abalone and the urchins, the things that don't have fins, the things that don't swim out of there, [but] I don't see how such a small area is going to protect much of the rockfish. They seem to swim a lot further than the two and a half mile marine protected area."

"I'm putting more pressure on the areas I have open as opposed to spreading it out. And I haven't noticed the fishing getting any better since the marine closures went in. It's kind of stayed about the same. I just feel like fishing would get better if [the MPAs] were open because I'd be more spread out as opposed to being forced to fish so close to home."

"[We've] got this rockfish explosion offshore, [and] as far as the quotas are being allowed, it looks like we have seven hundred pounds of lingcod a month for open access, a bunch of canaries, like up to fifteen hundred pounds, four thousand pounds of black cod, all sorts of other rockfish, deeper nearshore, and nearshore live fish, they're up to two thousand pounds for every two months for all year - I don't think that the Point Arena marine reserve was responsible for that. I just don't see a difference. [. . .] I don't think that the offshore quotas have really anything to do with the inshore marine reserves right now."

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* on page 17 which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall *What other types of effects or impacts have fishermen from your port experienced from MPA implementation?*

Discussion Summary When asked about MPA impacts on fishermen, participants shared several ways in which MPAs have negatively affected fishermen's livelihoods. For a more detailed discussion on effects from specific MPAs, please see the **Discussion Summary** on pages 17 and 18.

- One participant stated that day-to-day participation in the local fishing industry has decreased because fishermen need to travel longer distances to fishing grounds, which increases costs. They added that MPAs are just one of the many fishing restrictions in both state and federal waters that decrease the area available for fishing.
- Another participant detailed the emotional toll of MPAs on fishermen who have to navigate less fishing area. They indicated that MPAs have led to increased crowding in certain areas.
- One participant reported that MPAs closed to salmon trolling have led to a decrease in their total salmon catch because there is less area available for salmon fishing.

Participant Quotes

"The MPAs had a really big impact on the amount of users at the pier. I think a lot of the local fishermen, even sports fishermen, think twice now if they want to go fishing. They have to go a lot further. It costs a lot more money. There's other restrictions that overlap the MPAs. You can't really go to the deeper water and catch the fish there."

"When we're fishing north of the Cove, there's a reef directly in front of the Cove, and so we have to go above the reef where we set our lines and we troll up to the MPA line, which is a real short trek, it's maybe two miles before we hit the line and we have to turn around and have to troll back toward the reef. But then you have to turn before you hit the reef. So you're constantly turning, turning, turning, all day long. And if we're doing this for six fish and we're doing 25 turns for six fish, you begin to want to see a psychiatrist at the end of the day, you lose your mind. [. . .] You get up to the line, you've got three guys coming up behind you and you have to turn, you got a fish biting in the middle of the turn, you got to turn too sharp because you got a guy on the outside and inside, you lose the fish, you're ready to throw the guy over there standing next to you. It's horrible. It's absolutely horrible."

"A good bit of the area is cut out [due to MPAs] and unavailable for salmon fishing and, therefore, that cuts down on the total number of fish caught per year."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific *Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?*

Discussion Summary Participants identified several MPAs near Point Arena that have had a negative impact on fishermen from the port. Participants emphasized that between the Point Arena State Marine Reserve (SMR) and the Saunders Reef State Marine Conservation Area (SMCA), Point Arena fishermen were left with very few viable fishing grounds.

- *Point Arena SMR:* Participants stated this MPA is a significant issue for fishermen out of Point

Arena. Since it extends from the Point Arena Lighthouse to Wash Rock to Sea Lion Island, it affects most fishing activity near the port and is one of the restrictions that most inhibits access.

- Participants shared how this MPA is especially impactful because fishermen from Point Arena rarely choose to travel to fishing grounds that are more than 15 miles from the port. Because fishermen choose to stay close to the port, traveling to fishing grounds north of the closure is not a viable option to make up for the area lost to this MPA due to additional costs and safety concerns under poor weather conditions.
 - One participant reiterated that because Point Arena fishermen do not travel far from the port, there were other areas where this MPA could have been placed, like near Sea Ranch, where it would not have led to such negative impacts on fishermen's livelihoods. They believed that this particular area was chosen for an MPA because it is convenient for MPA researchers to access out of Point Arena.
- One participant discussed how there have always been seasonal variations in fishermen's catches, but this MPA continues to lower their annual catch because of the large area it covers. They added how this area was critical for salmon trolling throughout August and September and, as a result, the MPA has led to a significant loss of income.
- Several participants described how the waters near the Point Arena Lighthouse were particularly productive for fishermen from the port, especially for rock cod, sea urchin, and Dungeness crab.
 - One fisherman shared how this MPA covers what were among the best rock cod fishing areas and how it was a favorite place of theirs to fish with a live fish permit.
- Another participant explained how, during the MPA implementation process, this MPA was originally going to be a SMCA that would allow salmon fishing but that it was ultimately designated as an SMR. They did not know how or why this change occurred, but stated that fishermen would have been less affected if this was an SMCA.
 - They also mentioned that during the MPA design process, the proposed boundary line aligned with a road that would have been easily visible from boat or shore. However, this was changed during the process and now fishermen do not have a clear point of reference to identify the MPA boundary.
- *Saunders Reef SMCA:* Participants shared how this MPA closed areas that were productive for rockfishing and that provided protection against strong winds.
 - One participant stated that because this MPA does not allow rockfishing, there are overall less rockfish available for fishermen to access.
 - Another participant shared how fishermen used to rely on this area for weather protection. Now they must travel further to safe fishing grounds in rough weather, which leads to increased safety hazards.
 - One participant noted that this MPA has resulted in a loss of Dungeness crab catches for Point Arena fishermen because it restricts crabbing.
- *Del Mar Landing SMR:* One participant stated that this MPA does not allow rockfishing, but it is also unlikely Point Arena fishermen would travel as far south as this MPA unless the weather was really nice.

Participant Quotes

“The northern closure [Point Arena SMR], that almost affects everything. That was our best rock cod grounds. I just recently bought my live fish permit, but I've been fishing with my dad since I was six years old. So he's had a live fish permit for almost 30 years. And so that was one of our favorite areas to go. The southern one [Saunders Reef SMCA] too, because that has the first spot where we can get out of a northwest wind when it's blowing hard, at Iverson Landing. And so now if that's blowing hard, we got to go another eight miles to fish rocks to get out of the wind. So that puts us more at risk. The lighthouse was a very special spot [for sea urchins]. It's a very special reef for everything. So sad to see it go.”

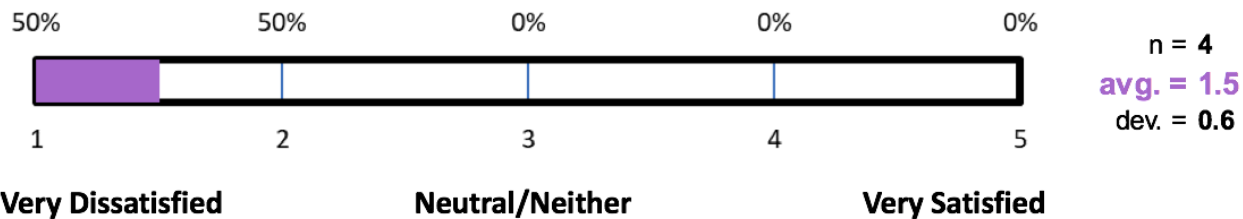
“The zone up around Wash Rock that comes down south almost to Sea Lion Island [the Point Arena SMR] has been one [that's had a negative impact]. At certain times of year, especially in August and September, close to Wash Rock has been the only area where we can catch fish or catch any significant amount of fish.”

“I feel that the northern MPA [Point Arena SMR], the one that goes to the point of Point Arena where the lighthouse is, I think that's the one that's restricting a lot of our access. I was the stakeholder representative there in the process 10 years ago and at first we had this whole area open to salmon fishing. So it was a conservation area [SMCA] that would allow only salmon fishing, there's no bottom contact or anything, and I don't know how it happened, but all of a sudden they changed the rules and they said, ‘look, we got to have a reserve there, it can't be a conservation area.’ And that's really regretful. [. . .] I also wish they would have stayed with the original boundary lines and those boundary lines were designed to be easy to see from either shore or a boat. And so there's actually a road there, and we decided that was a good boundary line and you could look straight up the road and then you would know that you are on the line. They changed that because that was an uneven number, it's just because somebody thought that that number should have a zero on the back. It doesn't matter to us [fishermen] whether we're reading fifty three and a half or fifty one. But when you're in the middle of fishing, what you're really looking for is something that you can see on shore. And that would have really helped a lot, too.”

“The one at Saunders Reef [the Saunders Reef SMCA], that doesn't allow for rock fishing and that used to be a very popular spot for a lot of sport fishermen. And so, if you're looking at three miles either way of the port, they're all bunched up against the southern border of the northern reserve [the Point Arena SMR] on this one spot. Everybody's fishing there, and so in a way that restricts access too because there's less pounds to go around for rockfish.”

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants were dissatisfied with MPA management because of the unfairness toward fishermen, lack of communication of information and decisions, and unclear MPA management goals.

- One participant thought there would be adaptive management following MPA implementation but stated that fishermen are not seeing any kind of management. There was a sentiment that the MPAs were put in place, not actively managed, and left for fishing communities to deal with.
 - Another participant hoped there would be opportunities to adjust MPA designations to better support the local fishing industry, like having the Point Arena SMR be a SMCA to allow for salmon trolling.
- Given that MPAs are located on either side of Point Arena, one participant thought there would be funds available to support infrastructure maintenance since the same facilities that are used for fishing would also be used to launch research vessels for MPA monitoring efforts. However, neither of these came to fruition.
 - One participant reiterated how they do not believe fishermen were considered during the MPA implementation process given that the Point Arena SMR is no longer available for fishing but is easily accessible for MPA monitoring efforts.
- Another participant explained how with a process like MPA implementation, it is difficult to evaluate the costs and benefits, though fishermen often bear the costs while researchers claim MPAs improve resource health.

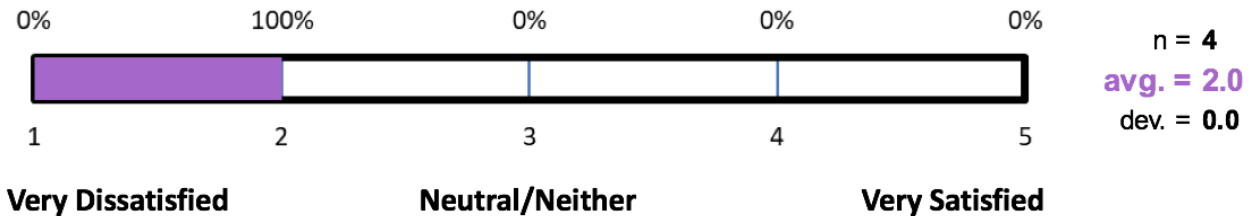
Participant Quotes

"We were [. . .] naive enough to think that this might be a flexible situation, that there might actually be reactive management, but in fact, it's just like putting a gate in front of it and closing the door and nothing's really happened. [. . .] You think we would get updated on what it looks like in the closures around us. [. . .] They're [the MPAs] just somewhere we can't go. [. . .] I haven't heard anything about them, nothing at all."

"In the back of my mind, I always thought that since we had two [MPAs] on either side of the port, there would somehow be money available to keep the facility updated and functional so that boats could be launched from Point Arena to study either side of the Cove [for MPA monitoring]. Well, that never really happened."

"I don't feel good about the whole thing because I know that any time an endeavor like the MPAs is considered, it's sometimes difficult to evaluate or put a monetary value on the costs and the benefits because the costs arise and accrue to us fishermen."

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants were dissatisfied with MPA monitoring because they believe it lacks inclusion of fishermen's perspectives and that there is poor communication of results to fishermen, leading them to believe the MPA network is understudied.

- Several participants indicated there is very little collaboration between MPA researchers and fishermen. One participant believed MPA monitoring efforts would be improved if there were more opportunities for fishermen to be involved because of the data they have collected over the years by way of fishing and spending so much time on the water.
- One participant shared they would be in favor of the MPA network if studies show that MPAs are improving marine resource health, but because they believe MPAs are understudied, they cannot say whether the MPAs are working.
 - They reported seeing MPA monitoring in the past, but think these monitoring efforts should be increased. They gave an example of divers using GoPros with GPS to perform sea urchin counts in Oregon, and suggested something similar be incorporated into MPA monitoring in California that also encourages local fishermen to get involved.
- One participant was skeptical that researchers have been able to follow through on their research proposals related to MPA monitoring given that they have yet to see MPA study results.

Participant Quotes

"I just kind of feel like it's [MPA monitoring] non-existent. The interaction with the fishermen and the passing on of knowledge, I don't see [that included in] the monitoring. I don't think it's really a good process."

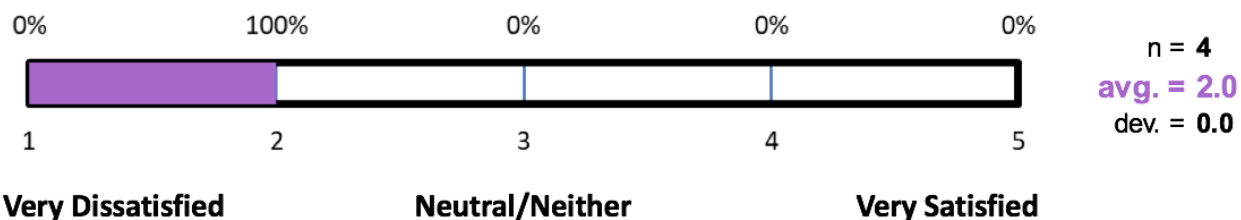
"I think it would be pretty easy for us to make a case that we fishermen have the best data on the efficacy of the MPAs and that we have years and years of data of catching fish in surrounding areas and the fact that we don't see any improvement in [resource health should be considered]."

"I wish I could see it [MPA monitoring results], I'm all for it [the MPA network] if it would work. I also feel that it's way understudied. I got to give Humboldt credit - they do get out there and check it out. There's Reef Check that, a lot of times, they arrive and the weather is not so good. The visibility is not so good [so they won't go out and do MPA monitoring]. I'd also like to see [methods] like in Port Orford up in Oregon, in the Port Orford Reef, they actually have the urchin

divers go in with GoPros and they're able to put a GPS signal on the GoPro and have them count species underwater live. So I'd like to see something like that that would involve some of the local folks, get them involved in the process."

"In my side job as a professor, I had occasion to write [and review] a lot of research proposals, so I'm in a pretty good position to recognize a research boondoggle when I see one, and this sort of strikes me as that. Even though the researchers may well have had pretty good intentions to start with, I can't believe that they've really followed through on those very well."

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Overall, participants were dissatisfied with the methods used for MPA enforcement.

- One participant reported there is little to no fishing activity occurring inside the MPAs. When needed, local enforcement is often self-imposed among fishermen. People know not to fish in the closures, and the boundary lines are shown on their GPS.
- Several participants believed when there is official enforcement by local wardens, warnings to not fish in the MPAs and clear MPA signage should be used in place of gear and catch confiscations, which they believe are counterproductive to MPA goals of protecting marine resources.

Participant Quotes

"Every once in a while, you'll see a stray crabber go through a closure and they'll get in trouble, but people mostly know to stay out of them because it's on our GPS and everything these days. People know, and so you don't see too much activity in them. I think enforcement has been mostly self-imposed. Every once in a while, someone thinks that they see a Fish and Wildlife person over on shore that might be looking to see whether or not they're across the line. But for the most part, it's pretty well self-regulated. In the beginning, we were disappointed about the lack of enforcement because the local game wardens basically told us that there wasn't going to be anything they'd do about it. So that was kind of a disappointment. It's mainly ourselves, we're not being controlled or anything here. There's no patrols."

"There have been times when people [from out of town] come and string their crab pots and get into trouble [because] some of the local people turned them into the Department of Fish and [Wildlife]. [. . .] Instead of going immediately [to] the boat and telling them to move their gear out of there, [Fish and Wildlife] proceeded with an investigation and then full confiscation of gear, confiscation of all the crab on the boat, which is way above and beyond. They ended up taking all the crab out of the MPA anyway, which didn't help the local fleet. All the little boats here, we just fish along the edges and scratch out what comes crawling out of the MPA,

whereas a big boat can go in there in two weeks time and catch 10, 20 thousand pounds and march away before enforcement even comes because enforcement won't even come if the weather's blowing 20 knots, they only come when the weather's nice."

"I've seen enforcement going after sport guys in the MPA down off of Saunders Reef where guys are out diving, spearfishing type diving, and a Fish and [Wildlife] warden's hiding in the bushes trying to get a bust when he could just go down to the edge of the shore and tell them to stop diving and that they're in a marine protected area. And how about putting a sign up on the shore so that some poor fool doesn't go down and go diving? [. . .] If they really want to protect the resource, protect the MPA, you think you'd just go down immediately when you see them and tell them to move, call them on the radio - the guy would've moved his gear. [The warden] didn't have to go after him and try to put him out of business. I've seen them go down and confiscate all the sport guy's dive equipment and the [warden] could have walked down, yelled at them in the water and told him to get out of there."

19. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

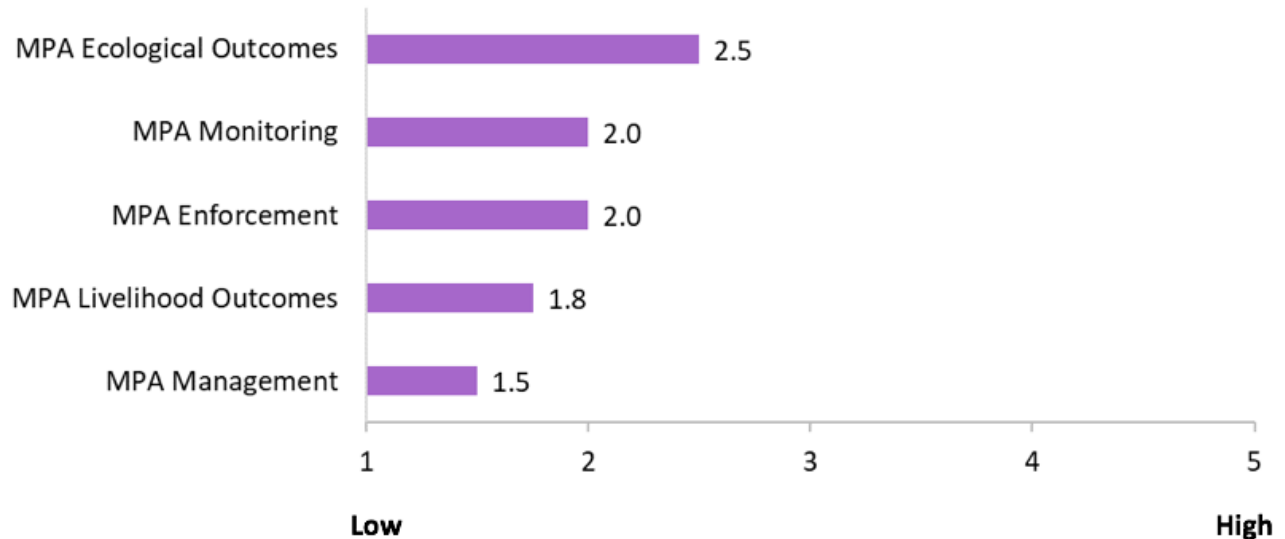
Discussion Summary A couple of participants reported that they would like to see MPA restrictions changed, particularly the Point Arena SMR to an SMCA to allow salmon trolling as well as sea urchin harvesting to prevent urchin barrens.

Participant Quotes

"I just hope for some change [. . .] and that we can actually fish them [MPAs] maybe or fish certain things in them [at some point]."

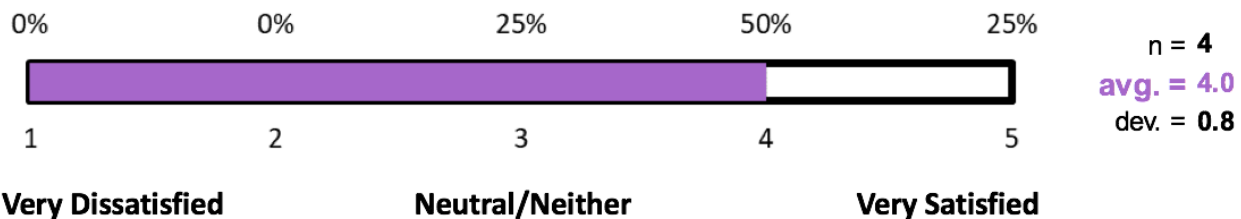
"I'm hoping that they can reassign the marine reserve [Point Arena SMR] to a marine conservation area [SMCA]. If the biologists think that it would be helpful to take a certain amount of urchins out of there so it wouldn't turn into an urchin barren, [an SMCA designation would] allow for more management."

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



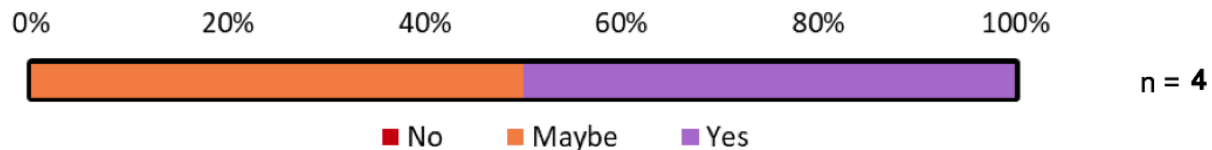
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the orange bar indicates the percent of participants who responded 'Maybe' to question 20b. The purple bar indicates the remaining percent of participants who responded 'Yes.' If participants responded 'No,' a red bar would appear.)



20c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary One participant appreciated the opportunity to comment on the MPAs several years after they were involved in the MPA implementation process. Another participant stated that they would be satisfied with their experience participating in the focus group if managers considered and applied what they shared to MPA decision making.

Participant Quotes

“I think it's really great that we have an opportunity to look at it [the MPA network] ten years later and are able to give our input.”

“The experience would be great if we can see something happen from it. It'd be worth it to do it every year, but I guess we'll have to wait and see.”

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network *Members of Bodega Bay's Commercial Fishing Community*

The Marine Protected Area (MPA) Human Uses Project Team¹ is hosting over 30 virtual focus group conversations with fishermen throughout California from July - October 2020. The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts of MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Bodega Bay

Date: Thursday, July 9, 2020

Participants: Scott Bertelsen, Ernie Camilleri, Lorne Edwards, Jeff Kaseman, Ryan Kozlowski, Dick Ogg

Overview

On July 9, 2020, six commercial fishermen operating out of Bodega Bay participated in the first focus group conversation, which was deemed a pilot. A high-level summary of the conversation is captured below, including:

- the numerical final scores (via Zoom polls) for questions asked within each theme;

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

- a summary of participant's perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 15 figures displaying participant responses for those questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. There are also two figures on pages 10 and 16 that display all of the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.

In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA regulations for the North Central Coast](#)
- [Reports on baseline MPA monitoring projects, North Central Coast \(2010-2016\)](#)

Our Project Team would like to express our appreciation to the six Bodega Bay fishermen who participated in the pilot focus group. We thank Scott Bertelsen, Ernie Camilleri, Lorne Edwards, Jeff Kaseman, Ryan Kozlowski, and Dick Ogg for their time and contributions to the conversation. A seventh participant attempted to participate, but was unable to due to technical difficulties; we extend our gratitude to them and all participants for their patience as we learned from this pilot experience.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary In terms of the current health and sustainability of marine resources, participants reported that, in general, they perceived their primary fisheries to be relatively healthy.

- Several noted Dungeness crab populations tend to be consistent, while salmon populations tend to fluctuate more.
- Several participants expressed that salmon health depends on ocean conditions such as water quality but, overall, there is sufficient biomass to sustain the fishery.
- A majority perceived there is an abundance of marine resources, such as rockfish and groundfish as well as salmon, however, there is a lack of opportunity to access these resources as a result of restrictions.

Participant Quotes

“The primary two that we [fish] here in Bodega, I would tend to say the salmon and the crab, the salmon as I said, you know, the salmon seem to be volatile and the crab seems to be pretty stable.”

“I think there's plenty of salmon so to speak to catch, it's the opportunity and the way we're being managed in that opportunity is just as [important] as, you know, what's there.”

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary When reflecting on the future or long-term health of marine resources, participants identified several concerns related to changing ocean conditions.

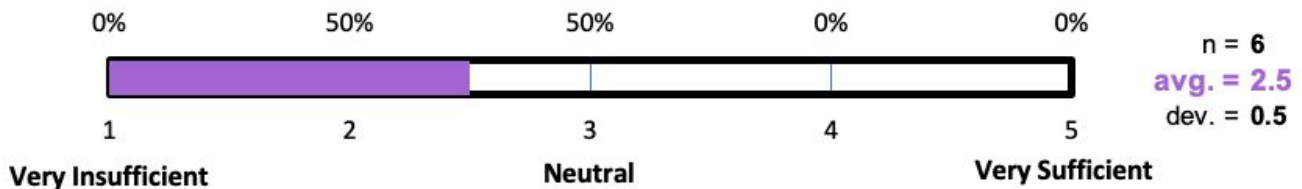
- One fisherman identified ocean temperature change and inland fertilizer use as a concern related to the health of marine resources.
- One fisherman expressed some concern related to ocean change, including acidification.
- Most participants communicated some worry about long-term effects the growing sportfishing sector could have on marine resources.
- Concerns were also expressed about the loss of commercial access and fishing opportunities in the long-term.

Participant Quotes

“I really rated salmon as being more of a 1, Extremely Worried, based on current water politics which have a lot to do with what we see in the ocean. It isn't really about the ocean front of the Bodega Bay, it's what's happening inland for the most part, and management decisions made by the Department that, you know, don't always put us at the front of their decision-making. And with respect to crab, not considering whale issues which is more of an access thing, but just with global warming, acidification of the ocean, and there is some reason for concern with regard to [crab] populations though.”

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants expressed several concerns related to the level of access to commercial fish resources for fishermen from their port.

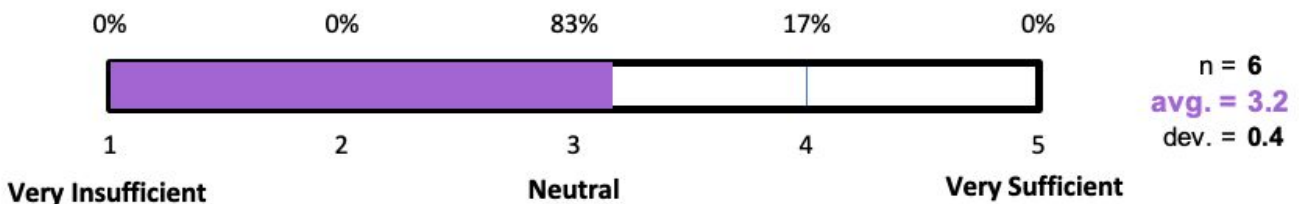
- All participants agreed that the ability to sustain a livelihood based on open access quotas can be challenging, especially for younger, newer entrants into the fishery who may not have the means to purchase limited entry permits.
- Several fishermen identified the financial and capital investment necessary to enter different fisheries as a barrier to access, and emphasized the importance of participation in multiple fisheries to maintain a liveable income.
- One fisherman cited rockfish conservation areas (RCAs) as a restriction of particular concern because RCAs prevent local fishermen from being able to supplement their income with rockfish, particularly when other fisheries they participate in are not doing well.

Participant Quotes

"It's just difficult because the limited entry costs are just beyond anybody's financial means unless you have additional income someplace else."

"I'm one or two regulations to where, if this doesn't make it, if it doesn't become profitable, and you just can't, you can't live on one fishery alone. You have to be multiple fisheries in order to make this, and having access to the multiple fisheries is also an important thing."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary When discussing income and livelihoods from fishing, participants indicated it is difficult to support themselves and their families based on income from fishing alone.

- A majority of participants reported they have a second source of income beyond fishing to support themselves and believed that others in their port did as well.

Participant Quotes

"[Open] access is really where young people have an opportunity to enter the industry. And open access as it exists today cannot provide enough income for somebody to survive, let alone advance their business to the point where they could invest in limited entry permits and, you know, broaden the base of what their income stream is. And so until we have substantial open access available to the fleet, we're gonna have problems."

"I think if you were to poll the fleet, you'd find that, well, a great majority have some second income, whether it's people that are retired, people that have wives at work, people have separate businesses."

5. **Markets** Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary When discussing markets, participants noted there has been a reduction in buyers in the Bodega Bay port over time. Additionally, existing buyers tend to only purchase certain types of products or from certain types of vessels, which creates challenges for commercial fishermen in the port, including less competition between buyers, and thus lower prices offered to fishermen for their catch.

- Participants shared that the presence of only one major buyer on the West Coast created competition and pricing challenges for fishermen.
- Several participants indicated that the recent decision for the Marina to allow fishermen to sell catch off their vessels was a positive development that gave fishermen more options for selling their catch.
- Participants reported the COVID-19 pandemic has affected the markets in Bodega Bay by lowering the demand for catch due to restaurant closures and other factors. This has led to severe price reductions in some fisheries, most notably Dungeness crab. Fishermen noted the local seafood producers co-op was doing very well during the pandemic, with home delivery options and product often selling out.

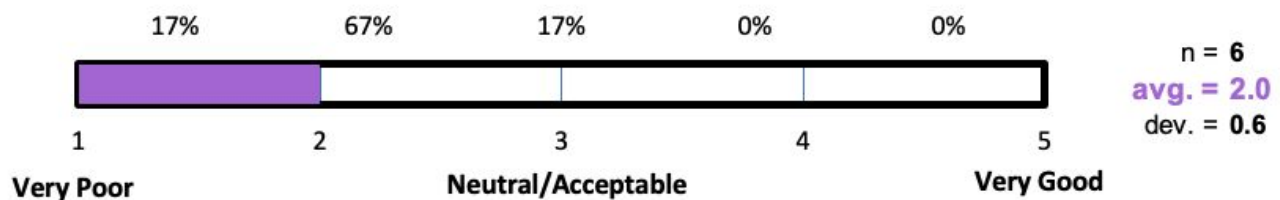
Participant Quotes

"In Bodega Bay, there has been a reduction in buyers or changes in the buyers and they specifically only want certain [products]. By bringing in the seafood producers [co-op], I think there's kind of a resurgence of, hey, maybe there's some competition, we better start paying our boats better."

“COVID definitely affected the crab fishery at the end. And it got to a point where the buyers didn't even want your crabs and they just told you just to bring your gear in and find somebody else to sell them to. The price was, I don't remember, three bucks or something - should have been like six.”

“For a number of years I've sold to restaurants so I was significantly impacted this year. But what I saw even more impactful to the whole fleet was: the buyers came out publicly and said, ‘Hey, because we don't have a restaurant market, we're going to start at \$3 a pound for salmon,’ you know, it came up after that. But it had a major impact for the projected price for fish coming to port. So COVID was, in fact, a big player.”

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants shared diverse views about the state of their port’s infrastructure.

- Some participants highlighted the condition and presence of infrastructure as a high point in Bodega Bay (particularly when compared to other California ports), while others noted areas for improvement.
- A majority of participants believed that the loss of the local boat haul-out facility had a cascading effect on the port and indicated that getting a functioning boatyard back in the port was top priority.
- Other participants expressed concerns over the lack of maintenance of navigation and safety infrastructure, like channel markers.

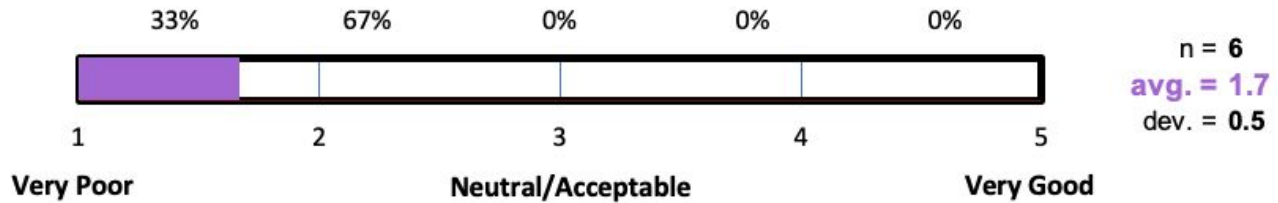
Participant Quotes

“We don't have a haul-out facility; we haven't had one in quite a few years and I think when we lost the haul-out facility was kind of like the tombstone for Bodega Bay, everything else seemed to go away slowly but surely after that.”

“We should also acknowledge that the Marina has been left in disrepair from lack of proper maintenance. Access to important things like fuel and ice once was a 24 hour seven day a week item and now we're on very limited hours which causes our businesses to have to adapt to the county schedule which, in turn, costs each business money because they can't operate in an efficient fashion.”

Well-Being, Social/Political

7. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Most participants indicated that recruitment and retention of participants to the commercial fishing industry in Bodega Bay is a challenge.

- Since the port is fairly remote, participants shared that recruiting good crew members can be difficult for individuals with bigger boats.
 - This is less of an issue for small boat operators that may not have crew members.
- One fisherman suggested that California adopt an apprenticeship program similar to one they had seen in Alaska to help entrants make the transition into the fishery.
- Several participants considered the financial difficulties of entering and staying in the fishing industry as a barrier to sustaining fishing participation in the port. One fisherman knew of many entrants who had to leave the industry because it was difficult to sustain a living with limited access to permits and/or fish to catch.

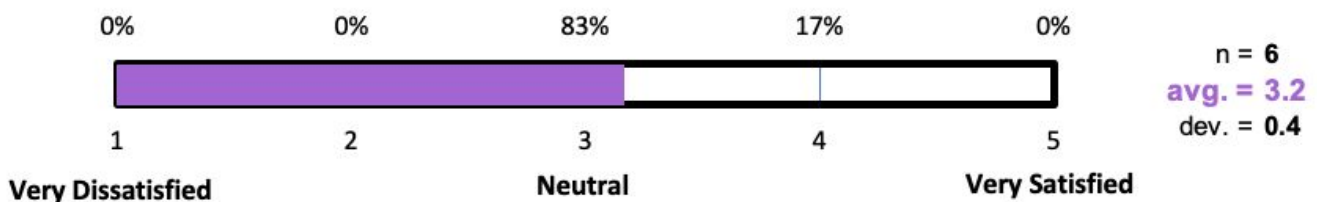
Participant Quotes

“I started fishing when I was a teenager with a little fiberglass boat and a rod reel. And I built my business from that. And nowadays ain't no young kid can do that. You can't do that. You have to have hundreds of thousands of dollars to start the business. If we can't get young fishermen, it's just a time clock. Pretty soon the industry is going to be gone.”

“If [hook and line fishing] was reestablished [it] may give us some hope that we might have an industry you know, long-term. Because it seems rather simple, but you need some way for people with a dream to get involved.”

“And, you know, when somebody finds [a good crew member] that's a long term solution, it's almost a miracle. Many boats go through many, many, many deckhands that don't work out.”

8. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary A majority of participants explained that they fish because they enjoy and prefer the work despite the sacrifices required and challenges of the job.

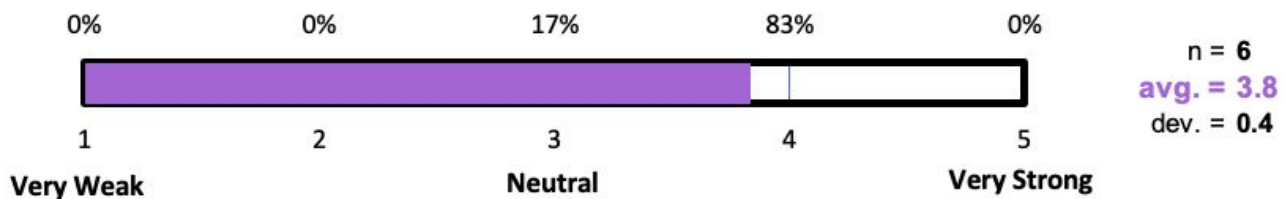
- One fisherman highlighted they feel satisfied with their job due to the hard work and loyalty on behalf of other fishermen who help to support and advance the commercial fishing industry locally and in California.

Participant Quotes

“And as far as satisfaction I chose neutral. There's good days and bad days. But for the most part, it's what I want to do. That's why I'm doing it.”

“This is not an easy profession, it's extremely difficult. And they love it. Otherwise they wouldn't be putting up with the difficulty.”

9. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Overall, participants reported that they felt social relationships within the Bodega Bay fishing community were strong.

- Several fishermen perceived the Bodega Bay Fishermen’s Marketing Association (BBFMA) to be one of the strongest in California, though one fisherman believed that participation in the BBFMA has decreased in recent years so it was not as strong as it had been.

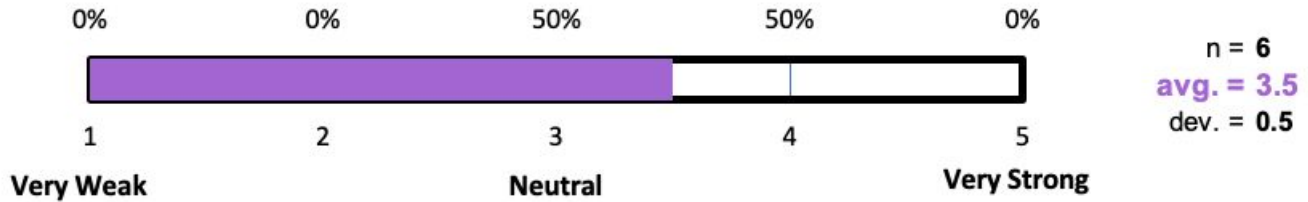
Participant Quotes

“I selected strong internal relationships just because I think our Marketing Association is one of the strongest on the coast.”

“In terms of the internal is, when you develop a relationship with other fishermen, we've become, you know, pretty strongly bonded, whether we're at Port or if we're out in the ocean searching for our catch.”

“If I feel comfortable, if I found something that I needed to fix on my boat, I'm going to be referred to someone [competent] and I'm going to figure out a way to get it done. And [name redacted] in particular has helped me a few times or a number of times and [names redacted] even helped me. He may not even remember he's helped so many folks. But, so there is a group within the community in Bodega that do help each other.”

10. Social Relationships - External Overall, how would you rate the strength of the port’s relationship with external groups who could help support community needs?



Discussion Summary Participants shared diverse views about their fishing community's relationships with external groups.

- One participant explained that some fishermen do not believe the government and environmental non-governmental organizations (NGOs) support the long-term success/viability of the commercial fishing industry and would rather not engage with them.
- Another fisherman perceived relationships with external groups to be strong because Bodega Bay has strong representation in several working groups related to fishery management.

Participant Quotes

"I've talked to some people in Bodega Bay that they just don't like the government, they don't like the NGOs; they just want to be left alone. Because every time [government and NGOs] start talking, it just means we're going to get less time on the water, they're going to restrict us. They're just taking things away. [. . .] So why should I sit there and fight anymore?"

"I chose strong because our port is represented on the [Dungeness Crab Fishing Gear] working group, the Dungeness [Crab] Task Force, PCFFA, all the different organizations, we have a presence, a strong presence. It's by very few people who do most of the representing and we owe them a lot. But we are represented in all those areas where other ports may struggle to have a representative."

Well-Being, Overall/Additional Comments

11. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary When asked to follow-up with additional information or recommendations related to fishing community well-being, several participants offered suggestions for fishery managers.

- One fisherman said they would like to see the California Department of Fish and Wildlife (CDFW) move towards making in-season adjustments to management based on real-time data collection; they believe the technology exists for this possibility and have seen it work in other states. The adoption of e-tickets was suggested as a tool that could help with real time data collection and potential in-season flexibility in management.

- Another fisherman stated that, overall, they would like to see managers give commercial fishermen less restrictions and more time on the water.

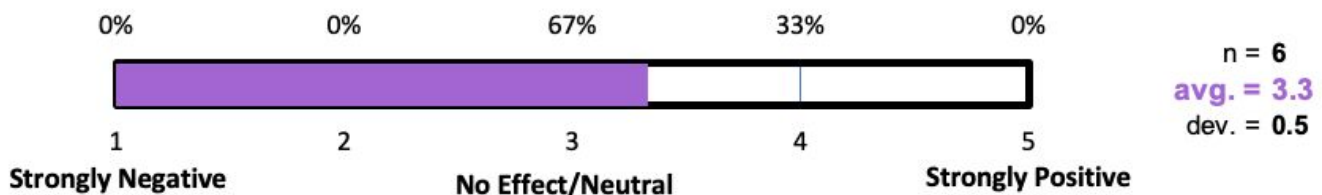
Perceptions of Fishing Community Well-being, Average Responses for Questions 1-10



Perceptions of MPAs

MPAs, Outcomes/Effects

12. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants stated they aren't clear on the ecological impacts of MPAs primarily due to limited knowledge of research being conducted to evaluate MPA effects.

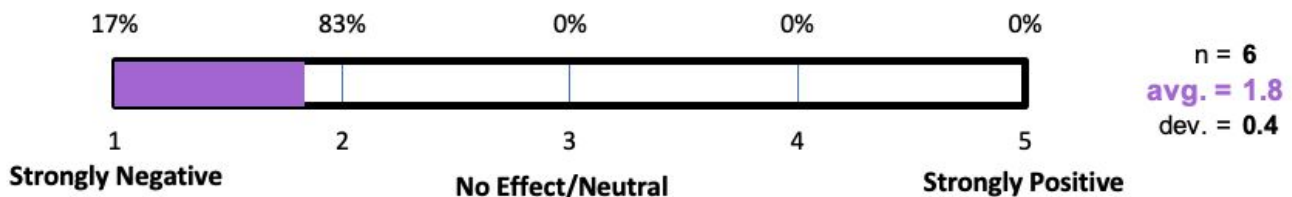
- Many participants suspected that the closing of areas likely would have a positive effect on some resources and habitats based on their knowledge and experience with other closures.
- Some participants stressed that MPAs do not address other ecological challenges facing fisheries, like water pollution.

- Other participants indicated they thought it would be appropriate to allow some fisheries with no bottom contact (i.e., salmon trolling) to continue in MPAs.
- Several participants expressed an interest in gaining more information on the ecological effects of MPAs and would appreciate better communication and outreach regarding MPAs in general.

Participant Quotes

“With respect to how [MPAs have] improved or not improved things, we have no measurable way to respond to that [. . .] we don't have any information of other people sampling in there to know what's happening. In our mind, we envision some grand utopia, but you know, we have no way to respond to that question.”

13a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 13b. *MPA Effects - Overall* on page 12 which summarizes the conversations related to questions 13a and 13b.

13b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary Participants reported that several MPAs were placed in economically important fishing grounds and that losing those fishing grounds negatively affected many fishermen from Bodega Bay.

- Participants reported that Dungeness crab fishermen saw substantial financial implications from the loss of key fishing grounds. Urchin fishermen were particularly affected by the placement of MPAs in their fishing grounds, leading a number of urchin fishermen to leave the port.
- Participants recounted their participation in economic data collection efforts during the MPA planning process, where they mapped the economic importance of fishing grounds by placing pennies on maps of fishing grounds based on the relative importance of the fishing spot.
 - These participants said they were disappointed to see that many MPAs were placed in the most high value fishing grounds they had indicated, leaving feelings of bitterness and with some wondering if the mapping exercise was designed to take away their most important grounds.
- All participants shared the perspective that the MPA network required Bodega Bay fishermen to travel further and use more fuel to find productive fishing grounds, and that this also resulted in safety and navigation issues.
- Several noted that MPAs had contributed to the crowding of vessels in open areas, particularly along MPA boundaries.

- Most participants shared the perspective that MPAs had a compounding adverse effect on fishermen's livelihoods.
- One fisherman noted a positive effect from MPAs on their livelihood in certain MPAs where some types of fishing is restricted (i.e., larger boat restrictions) which allows them to fish more effectively in these MPAs.
 - *Note from the Project Team: Not all participants had been fishing prior to the implementation of the MPAs and newer fishermen could not speak as readily to the effects; participants who are newer fishermen reported that the MPAs were another reality they had to contend with.*

Participant Quotes

"I think one thing to keep in mind is that the fish in the ocean are actually the resource of people, and all these restrictions and closures, all they do is deprive the people of their own resource."

"I'm worried about the regulations, and how they're going to impact us as fishermen in the long-term because we're slowly but surely losing our opportunities, and it's difficult, you know, to see this continue."

"I would say those that left fishing left because [. . .] of the generalized difficulty and challenges in making a living. So the MPAs certainly added to that [. . .]. When you ask a question, 'was it because of that?', maybe [MPAs] were the straw that broke the camel's back, but they weren't the weight that broke the camel's back. They were just the final straw."

"I can remember the penny thing, where we put pennies in [. . .] important areas and seemed like we all lost our money. You know, that's kind of our feeling, you know, we never felt like it was beneficial. In fact, where we put the penny seemed to be where the MPAs ended [. . .] so that was kind of a defeating feeling."

MPAs, Discussion of Specific MPAs

14. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants highlighted several MPAs that have had a negative effect on Bodega Bay fishermen.

- **Bodega Head State Marine Reserve (SMR) and State Marine Conservation Area (SMCA):** Participants shared their perspectives that these MPAs have forced fishermen, particularly those who fish for salmon and Dungeness crab, to travel further and fish areas that are more difficult to access.
 - Participants questioned why salmon fishermen are allowed to transit these areas but are not able to fish in them since salmon trolling only interacts with the target species.
- **Point Reyes SMR and SMCA:** A majority of participants shared opinions that these MPAs led to a substantial/important financial loss for the Dungeness crab fishery, which was highlighted as a major concern during the MPA planning process.

- *Stewarts Point SMR*: Participants identified this as a notably productive area, and said this MPA had restricted urchin fishing substantially, as well as Dungeness crab fishing.
- *Saunders Reef SMCA*: A participant shared their perspective that this MPA was also a productive spot that fishermen from Bodega Bay can no longer access.
- *North Farallon Islands SMR*: One participant reported that the implementation of this MPA had resulted in crowding around the MPA boundaries, especially during Dungeness crab season.
- *Año Nuevo SMR*: One participant shared this was a productive area for salmon fishing, and was a preferred fishing spot due to it being protected from prevailing winds.
- *Soquel Canyon SMCA*: One participant identified this MPA as having a beneficial effect on salmon fishermen because the MPA restrictions on ground gear decrease conflict between salmon, Dungeness crab, and hagfish gear.
 - A fisherman mentioned that sometimes when they are fishing in the Soquel Canyon SMCA, rockfish climb onto their gear. Due to restrictions, they must throw the rockfish back where they think they will likely die. They'd like to see a change to allow for utilization of bycatch in these circumstances so the catch isn't wasted.

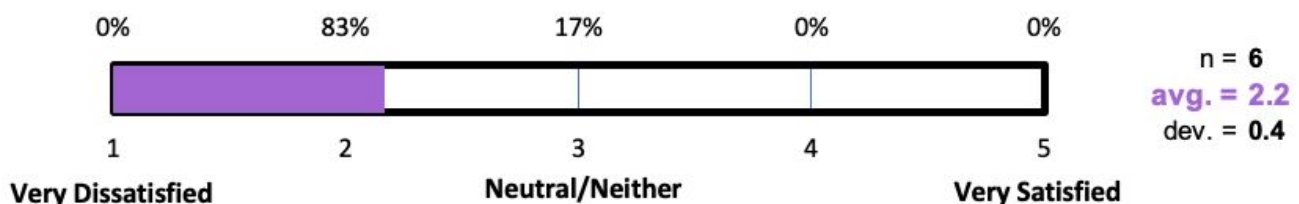
Participant Quotes

"The protected area up by Stewart's Point, the urchin fishermen were impacted significantly; that was one of the most productive areas for them. And [the urchin divers] basically said, that's where we want to protect, we want to be able to dive there and that was taken away and it did leave a very sour taste in everybody's mouth."

"From my view, the MPAs are highly productive areas that have been removed from our use, and they were places we went. And because they were highly productive areas, we were highly productive there. And now we might have to travel farther, use more fuel to go to areas [that] might not be as productive, and spend more time to do what we could have in these productive areas."

MPAs, Management

15. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Generally, participants had limited knowledge of any management actions, including adaptive management, that had taken place since the MPA network was implemented.

- The majority of participants shared that they were unaware of any MPA management efforts and said that they did not see clear goals or purpose for the implementation or management of the MPAs.

- Several participants felt that lack of communication around goals was a key failing of the process and could erode fishermen's cooperation in the long-term.
- One fisherman expressed the importance of finding a balance between protecting and using the resource.
- When discussing management of the MPA network, several participants reflected on the MPA implementation process. They described how fishermen at the time came together to engage with the MPA implementation process, but that the outcome made some fishermen not want to engage in future processes.

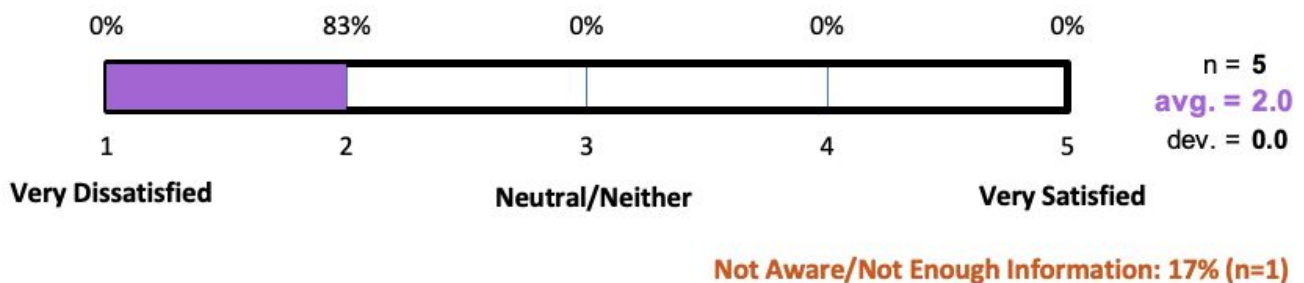
Participant Quotes

"It's difficult for me to understand where this [MPA management] is going and what it's, what the true purpose is. It's real frustrating."

"The objective of the MPAs is something that's always been in question in my mind. And it's situation [is] similar to what we go through with a closed area regarding whale entanglement or any of the issues that we deal with closing off areas. Once that's done, are we looking at utilizing this as a method of improving the resource and then allowing the resource to be accessed by the fishermen, or are we looking at closing the area forever, saying, 'no more access, this is going to be this way. And it's a nature preserve, it's always going to be there'? Is that the end goal? And is there a way to reverse this to give us the opportunity to access these areas? You know, I just wondered what we're doing."

"I think we deserve that kind of information [about MPA goals]. And to not tell us that or give us an opportunity to understand it is a major shortfall. And certainly it's going to erode cooperation."

16. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Generally, participants had limited knowledge of any monitoring activities that had taken place since the MPA network was implemented.

- Most participants reported they were not aware enough of the monitoring program to comment on it.
 - One participant said that monitoring could benefit from adding fishermen's perspectives or their 'eyes on the water.'

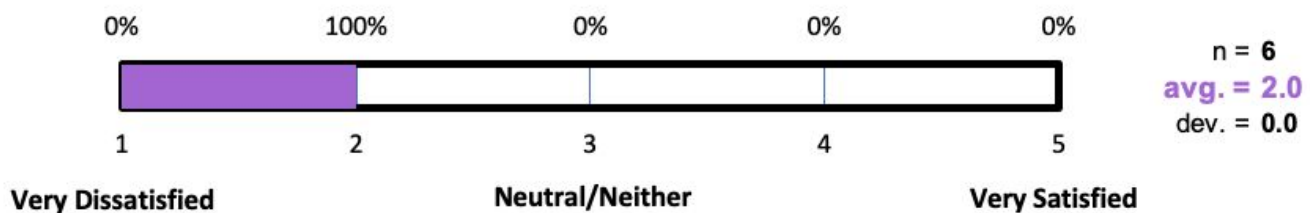
- Multiple participants stated they would like to know if there is evidence that the MPA network has improved marine resource health and, if so, whether the intention is to re-open these areas or to keep them closed indefinitely.

Participant Quotes

"In terms of the monitoring, I would have voted not enough information. That's mostly what I hear is that [fishermen] just can't find the information as to how these MPAs are doing."

"So here we have a bunch of fishermen that are saying we have these areas provid[ing] significant productivity to the consumer in providing crab or salmon. And so it would bear the question in doing that, and giving that up, what was the overriding goal? And has that been met so that productivity can be returned back? Or was it always something else? And so I think, in fact, we are owed that kind of information, that kind of understanding."

17. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants were generally dissatisfied with the enforcement of MPAs.

- Participants reported there was not always consistent interpretation or communication of the rules, making enforcement uneven and compliance challenging.

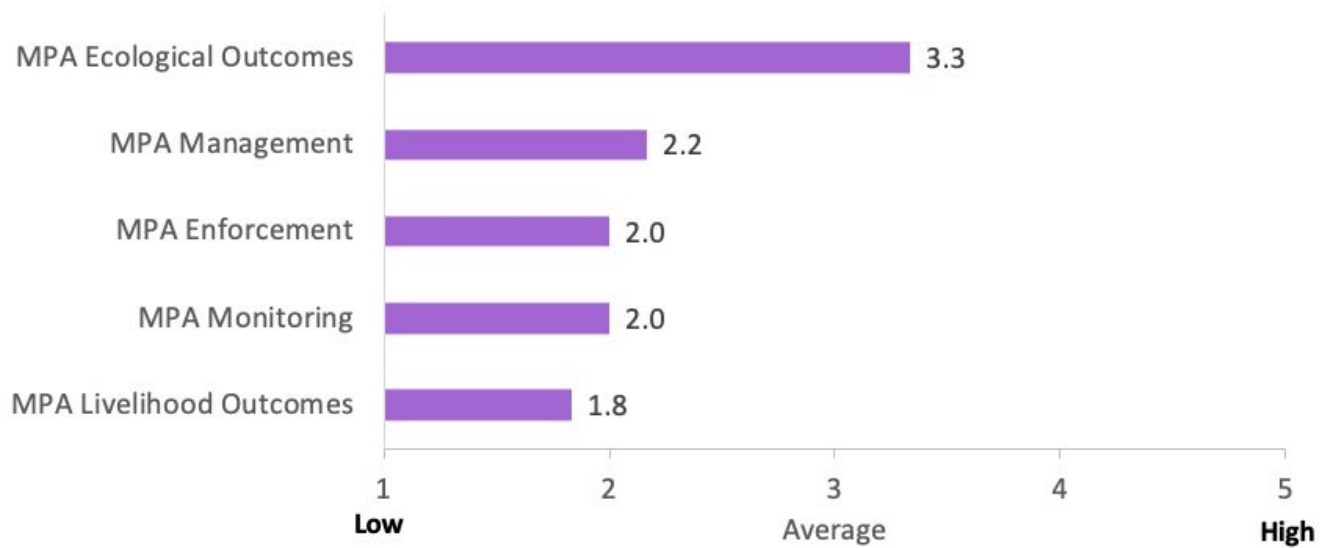
Participant Quotes

"You have an enforcer in the Bodega Bay area that said 'Oh, yeah, you guys can go ahead and do this, this, and this.' You go to a different [place] and all of a sudden: oh, wait a minute here. You know, no, that's not the interpretation. And so now you have to go to court, you got to do this blah, blah, blah. Takes away the fisherman from his duties. And yet, I mean, it was like the enforcement people had their own different points of views of how they were going to go about [enforcing regulations]."

18. MPA Overall Any additional comments or concerns about the MPAs and MPA management you would like to communicate?

Discussion Summary Participants felt they had expressed everything they wanted to share through the previously asked questions.

Perceptions of MPAs, Average Responses for Questions 12-13a, 15-17



Feedback on Virtual Process

Discussion Summary Overall, participants responded with positive comments about the focus group experience.

- Some participants stated they really enjoyed the experience and appreciated the time that the Project Team took to make them comfortable with the technology.
- One participant believed that the virtual Zoom meeting was a good way to gather participants remotely in a manner that they feel comfortable (i.e., in their own homes) but would prefer an in-person meeting if possible.
 - One fisherman commented that the virtual format helped them open up about their experiences because they were at home in a place they felt comfortable.
 - Another fisherman stated that participating online was the only way they could have engaged in the focus group conversation.

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network ***Members of San Francisco Area's Commercial Fishing Community***

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port Group: San Francisco Area Ports

Date: Monday, October 26, 2020

Participants: John Barnett, Nick Krieger, John Mellor, Ed Tavasieff

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

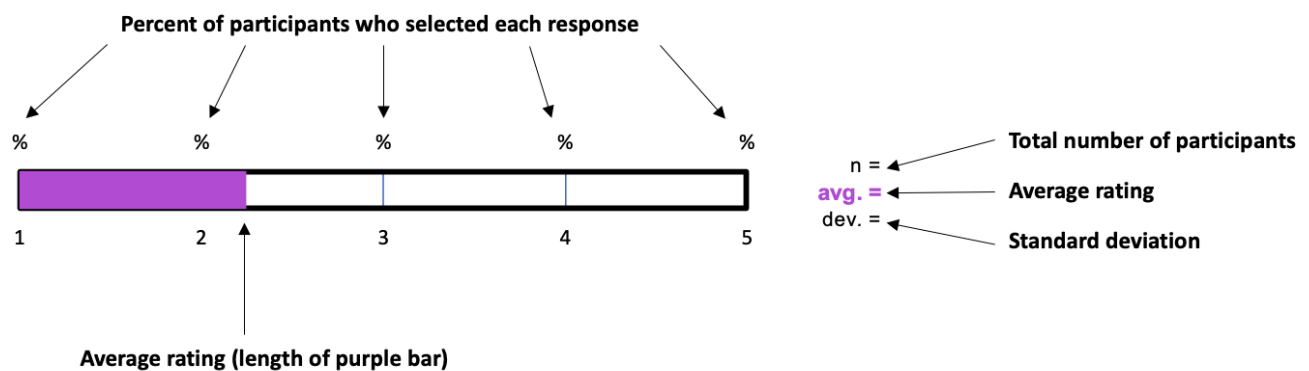
Overview

On October 26, 2020, four commercial fishermen operating out of the San Francisco area participated in the ninth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 16 and 24 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

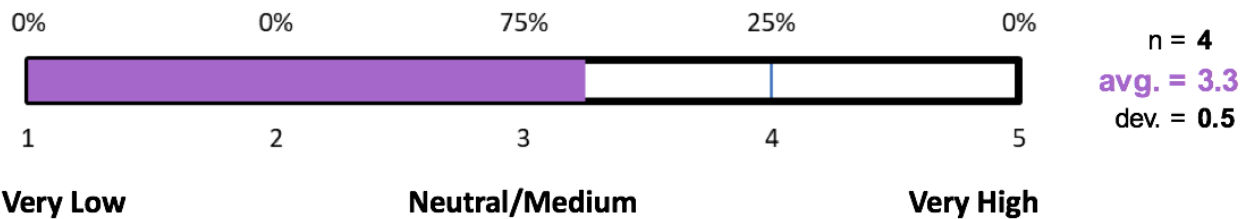
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Central Coast](#)
 - [A Summary of the Marine Protected Area Monitoring Program 2010-2015, North Central Coast](#)

Our Project Team would like to express our appreciation to the four San Francisco area fishermen—John Barnett, Nick Krieger, John Mellor, and Ed Tavasieff—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants reported marine resource health varies across species but that the ecosystem is generally doing very well. They indicated politics and regulations affecting the fishing industry coincide with and affect the health of marine resources.

- One fisherman considered Dungeness crab to have natural cycles of years with high and low abundance. They said halibut is abundant, whereas salmon is affected by water politics related to dams and agriculture. Another fisherman perceived rockfish populations to be increasing, but since managers will not open the fishery, the fish are dying of old age before they can be caught.
- One participant stated water temperatures are normal and there is sufficient upwelling to support healthy marine ecosystems.
- One fisherman expressed the belief that fishing interests are not explicitly considered in management decisions and that threats to the health of marine resources tend to stem from how a fishery is managed.

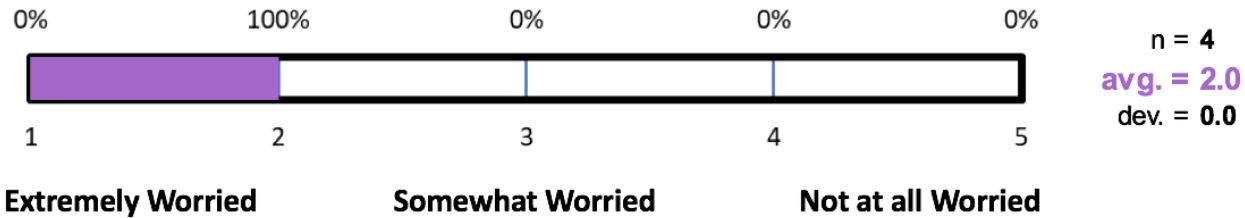
Participant Quotes

“The rockfish are basically dying of old age because nobody can catch them. There is no viable rockfish fishery even though the resource is probably at virgin biomass levels at this point after being shut down forever. [. . .] Salmon has always been problematic because of the politics of water use and dams and big agriculture taking all the water from the rivers.”

“Looking specifically at the health of the ecosystem, I'd say the ecosystem is doing very well currently. The water temperatures are what we would consider pretty normal, and the upwelling that drives the ecosystem is in place and it's booming. But that's a separate issue than how the industry's managed.”

“The pressures aren't on the actual fishery or on the species. It's more on the regulations surrounding fishing - species like [Dungeness] crab, for instance, the pressure is on whale entanglement, domoic acid, fair starts, and regional disputes. [. . .] There's pressures everywhere else, but the actual crabs are doing pretty well. So that particular fishery is an example of how I think we all feel, and salmon is the same way. It was actually a pretty good salmon season, but there is the worry of water and [. . .] the politics around water, which is a huge issue.”

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants expressed concerns about the way marine resources are currently managed and what this could mean for long-term resource health and the future of the commercial fishing industry.

- One participant identified the politics of water management as a source of concern due to potential impacts on Dungeness crab and salmon, particularly the species abundance these fisheries rely on.
- Another participant highlighted the newly implemented regulations to address marine life entanglements and explained these regulations are hurting the sustainability of the Dungeness crab fishing industry.

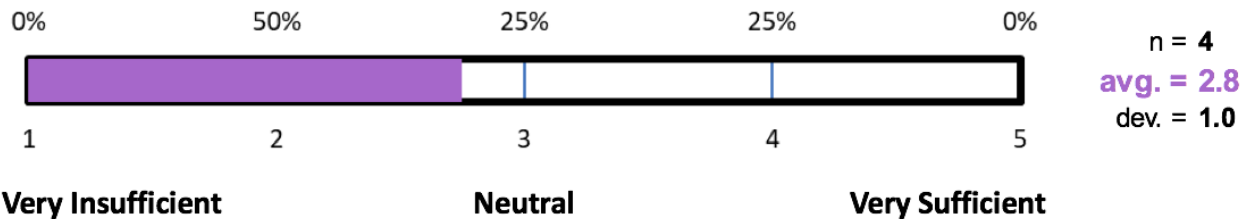
Participant Quotes

“I feel like I'm moderately worried about it [future marine resource health] because of management concerns and all the pressures on the fishery. I think people are worried [about] water issues; we aren't getting the water that we need for the juvenile crabs and salmon. So there's a lot of worry about policy, politics, and regulation, and I think that goes hand in hand with the populations of the species right now.”

“There's always climate disruption - we've seen the results of that back in 2014 and 2017 with the blob and the El Niño. Things can suddenly get disrupted in a major way. But I think most people are more worried about management and the runaway train aspect of the whale/Dungeness crab issue because without Dungeness crabs, I'd say most of the industry will disappear; it won't be viable for someone to be a full-time commercial fisherman with most of the operations that exist in California. But that's separate [from the health of the resource]. I mean, the crabs could be doing great, the resource could be doing great. But if we can't catch them, what good does it do us and what good does it do the people who want to eat seafood in California?”

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants generally felt access to marine resources is limited and shared several factors they believe inhibit access, including restrictions on the Dungeness crab fishery, catch limits, and costs associated with acquiring fishing permits.

- One participant stated that while there could be high volumes of fish, a fishing season could change quickly and affect fishermen's ability to access that abundance. For example, as a result of marine life entanglements in Dungeness crab gear, the Dungeness crab fishery has been closed months earlier than it traditionally has, greatly shortening the season. They believe this is a representation of what is to come for the industry. The public is focused on protecting whales but neglects to consider impacts on fishermen's access to Dungeness crab. The participant stated the public believes the ocean is overfished and that fishermen are to blame, but the public does not understand the reality of these resources and their availability.
 - One participant shared that small to medium scale fishermen require a certain amount of productivity to stay in business and that those fishermen were really affected by restrictions on Dungeness crab. Due to issues related to access, they cannot turn to another fishery like rockfish to supplement their catch because it is not very profitable.
- One fisherman highlighted the number and type of fishing permits owned varies across fishermen and that those who have a more diverse permit profile are able to access more fisheries. Additionally, financial barriers exist to obtaining fishing permits, especially for newer fishermen.
- Another participant suggested open access provides opportunities to enter into some fisheries.
- One participant cited fishery viability and catch levels as an issue related to access. While halibut could be a good entry-level fishery because of the high volume of catch allowed, rockfish is not viable because the catch limits are too low.
- Several participants reported fishermen are no longer able to rely on 'fall-back' fisheries when they are unable to access one or multiple fisheries because those fisheries are no longer profitable due to catch limits.

Participant Quotes

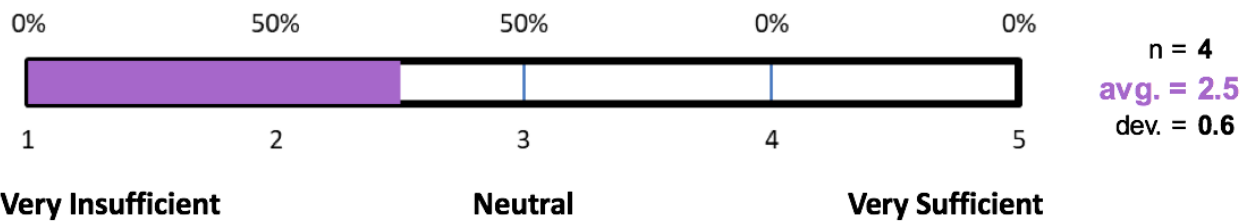
"What's happened with the crab and the whales is potentially a representation of what's more to come in fishing. We [fishermen] obviously care about the environment and we care about the whales. We don't want to harm any whales. We don't want to damage the environment. But look at the Department of Fish and 'Game' turned to the Department and Fish and 'Wildlife.' They're not focusing on hunting anymore. They're focusing on wildlife. They're no longer considering those animals 'game.' So I think just in general, for some people, the way they look

at the resources has changed and the opportunities for fishermen are going to only get smaller and smaller because of that.”

“Permitting has a lot to do with access. The only real open access fisheries are your open access rockfish, lingcod, halibut, and white sea bass. Crabs are obviously permitted [. . .] It's not like every fisherman has every kind of permit, although maybe a handful do and are able to go and participate and have access to all the fisheries. So I kind of look at this in a way of going, well, it's sufficient for those that have the permits and insufficient for those who do not.”

“We used to have the ability to go out and get fish and then if halibut was bad, I'd go fish rockfish or if rockfish was not happening, I'd go fish salmon and all these different fisheries. And I used to call them fall-back fisheries. We don't have that opportunity anymore. And when they first came out with the rockfish qualifications, I qualified for all of them. But you know what? They told me I could get two hundred pounds in two months. That was just not economically viable to take and go for those permits. So I just let them go. I didn't even bother with them, but we used to have these fall-back fisheries which we used to depend on.”

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants indicated income from fishing is insufficient to support their livelihoods. As a result, several participants need to take on other jobs to supplement their fishing income.

- Participants reported fishermen do not make enough money from fishing to support themselves or a family. However, they believed younger fishermen can do well in the halibut and white sea bass fisheries if they put in the effort and have fewer expenses than older fishermen.
- One participant said fishermen need to fish multiple, profitable species (i.e., Dungeness crab and salmon) to survive in the industry. Otherwise, they need a second job to support their livelihoods.
- Several participants communicated their need to take on other jobs in the off-season, especially with the shortened Dungeness crab season, in order to make enough money to maintain their boats and permits.
 - One fisherman shared that they made half of what they normally would crabbing over the last two years. The value of their permit and boat has dropped which hinders their retirement.
- Another fisherman stated they do not have time to get a second job because they would not be able to keep up with their business, maintain their boat, and support their crew.
- Several fishermen explained the cost for fuel and bait has gone up even though they are earning less per pound. One fisherman mentioned that due to factors like tariffs and COVID-19, bait is now worth more than black cod.

Participant Quotes

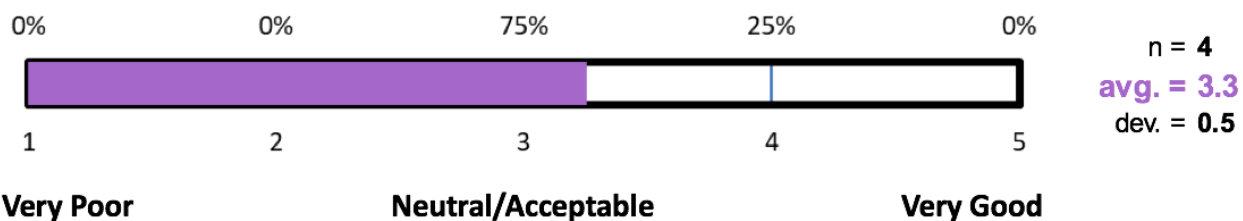
“There isn't enough money in these fisheries to just focus on that particular fishery unless you have another job, unless you have another permit, or unless you figure out how to pay less money to run these boats, because what you make isn't enough to support you or a family in the Bay Area without some other source of income.”

“There's a lot of off-season if you do just crab, and we may not get our spring crab fishery back. So that's going to put those guys into having to look for other jobs in the offseason, which a lot of these guys do. [. . .] So you have to look at having two separate jobs, fishing being one of them, to pay for everything because it's so expensive to have a boat, or you have to look at multiple fisheries, and everything is permitted.”

“I couldn't have another job - I couldn't maintain my boat and my crew and fish part of the year and then go do construction. I know people do that, but that wouldn't work for me at all because, meanwhile, I still have to pay for the upkeep, the boat, the berthage, the insurance, and keep a crew. If I don't keep my crew busy year-round, they're going to go away, and I can't really do it by myself.”

“Considering costs compared to revenue, the price of fuel, the price of bait is through the roof. The cost of everything else has gone up. None of the costs have gone down, the fixed costs, and you have to be able to pay your crew [because] they need to make money.”

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants noted fishermen in the San Francisco area have several marketing options with various market structures.

- One fisherman relies on bringing larger fish to market and expressed a concern with regard to people flooding the market with smaller fish.
- Several participants shared that as more people target halibut, the markets are becoming saturated and fishermen are having to sell in different ways (e.g., direct marketing off their boats). However, for fishermen whose focus is on production and selling to wholesalers, the direct marketing business model is not sustainable.
- Several fishermen identified direct sales to the public and internet sales as opportunities for fishermen to access new markets, though they are not preferred because they take time away from fishing. Fishermen can sell at a higher price through direct sales - especially for salmon, but not for halibut - which can be a good tradeoff.
- One participant shared how they do most of their business outside of the wharf, driving their product directly to market and doing their own paperwork.

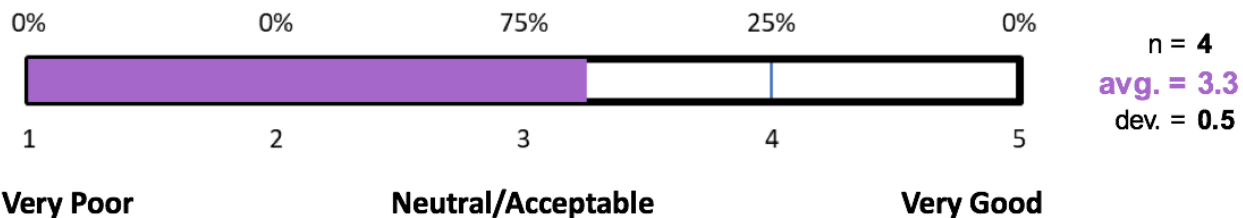
Participant Quotes

“Those [groups of people] that are fishing the Bay now actually do quite well, better than some of us old timers. The market structure that they're working with is different than what I'm traditionally involved in. My markets generally like larger fish. These guys are coming under a lot of very small fish and they flood the market. They are a concern at this point.”

“If everybody says, ‘OK, well, I'm going to go for halibut,’ then the market will get saturated and the processors will say, ‘no, we don't want any,’ and you have to go and sell them off the boat, which people have done. But that's not a viable answer because we're focused more on production and selling to wholesalers. That's our business model and in the last four or five years, we've watched it crumble.”

“I have dabbled in it [direct sales]. Typically, I would love to just come in, load to the market, and be done with it and go fishing the next day. But you have to take the time to sell the product. So that cuts into your fishing time. I don't want to do it. I would much rather go with the buyers. But if the buyers are loaded and you're stuck with trying to make a living and having to take and sell to the public and maybe spend that extra time, the price that you sell to the public is substantial.”

6. **Infrastructure** Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants indicated that while the port’s infrastructure is acceptable, it could also be better.

- One participant stated they have access to a hoist, forklift, and freezer and attributed this to their long-standing relationship with the people who work at the port.
 - Another fisherman shared that the port was supportive of the fishing community after the May 2020 fire at Fisherman’s Wharf.
- Another participant mentioned the infrastructure is good in terms of having a dock and gear storage.
- One fisherman noted parking is difficult. Another participant compared this to Half Moon Bay where parking is better and there are also fewer homeless concerns.
- One participant recounted their past experience fishing out of Bolinas. There was no hoist and they had to drive their truck to San Francisco to sell their fish.

Participant Quotes

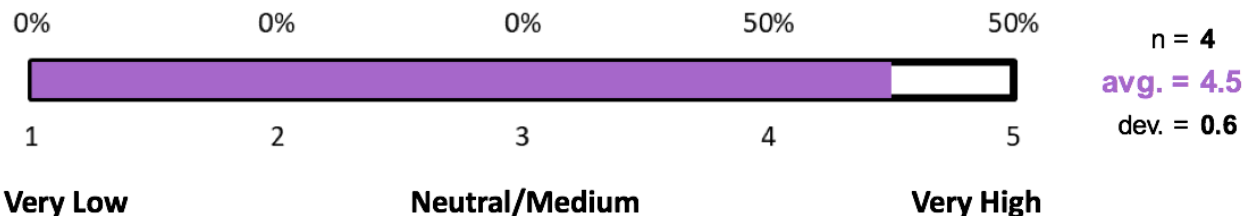
“I have access to a hoist, to a forklift, and I can do what I need to do with the freezers and stuff. I’ve been dealing with these people for decades so I have good relationships with them. So as

far as that goes, it's good. The port moves in strange ways, but ultimately we have a steel dock, we have gear storage. So that's all fine."

"We have a lot of hoists. Could it be better? Yeah, but I think it's sufficient. I think it works. The fire was horrible, but we're still given space here in another shed for the year. We deal with things here in San Francisco because parking is hard. But the port helps us out in other areas."

"I used to have a little boat that I fished out of Bolinas, and compared to not having a hoist and needing four wheel drive in my truck to drive down on the beach and carry baskets of crab to the truck so I could drive to San Francisco and sell them, being at Pier 45 is definitely easier and better, although when I go down to Half Moon Bay, that looks pretty nice. There aren't all the homeless and all the trash and there isn't the parking problem. So it could be worse, but it definitely could be better too."

7. COVID-19 Impacts How disruptive do you think COVID-19 has been to your port's fishing operations?



Discussion Summary Participants reported COVID-19 has been extremely impactful and believed they will likely continue to experience the effects of the pandemic in the coming years.

- Several participants stated they did not go fishing in the early part of the pandemic because markets were very limited.
 - One fisherman did not catch halibut even though there was high abundance. Another fisherman stated being able to catch a lot of fish helped them to offset losses elsewhere but that they had to negotiate their prices in order to ensure viability of their business.
 - One participant decided not to catch black cod because of the lack of available restaurant markets. They opted not to sell to the public because it is time consuming and they had to keep up with their other business.
- Participants stated there continues to be uncertainties with regard to price, demand, and overseas shipping/markets. They commented it is unclear what the price for their products will be when restaurants open back up.
- One fisherman noted COVID-19 provided an opportunity to make use of alternative markets, like advertising to the public on apps like Nextdoor.

Participant Quotes

"COVID was a disaster for us. We had a pretty good abundance of halibut this year, and I lost a lot financially just because of the fact I couldn't go [fishing] because I deal with restaurants and corporations that were affected by COVID quite intensely. So for me, it was a heavy wipeout that impacted me severely. However, abundance sort of mediated that a little bit because when I did get out, I was able to catch fair amounts of fish, good quantities of fish. So in some ways it was not that bad only because resource abundance was high when I finally could get out and go fishing. I had to negotiate price and it became acceptable, but it was tending towards going

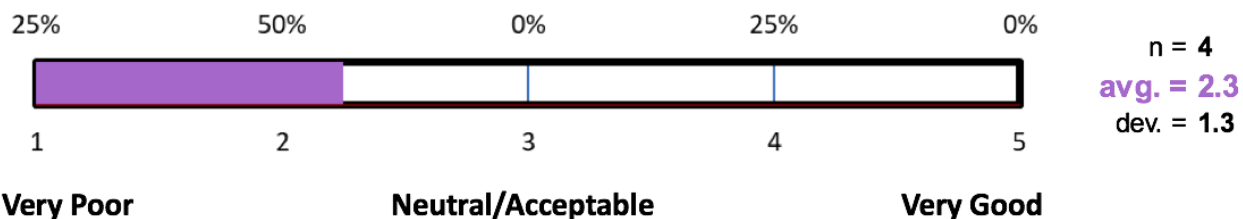
much lower. But I was able to work with my buyer to maintain a price that I could call the fishery viable this year.”

“COVID was definitely a strong impact on fishermen, and crab season’s coming up now too, I don’t know what’s going to happen - perhaps there’s guys sitting on a lot of frozen stuff. So price structure this year, demand, who knows? One thing that is evolving at this point in time is something called Nextdoor: people that are selling fish or crabs, they’re going on the Internet, basically selling to the public. And that’s something that is probably going to be maybe some of the future coming up.”

“I was kind of in between boats most of the summer, but I had the opportunity to catch black cod before I sold my boat. And I didn’t even bother because there just wasn’t a market. The bait was more expensive than we were going to get for the black cod. And typically when I catch black cod, I try to catch as much open access quota as I can. And then the larger fish I would sell to a wholesaler and the smaller fish I sell to restaurants. But without the restaurants, I don’t have enough traps and a big enough boat to catch all big fish. So it just wouldn’t really be worth it to go out and only catch three or four hundred pounds of fish. It wouldn’t probably break even on the trip. And then I thought about trying to sell all the fish to the public, but I just don’t really want to deal with that. I don’t want to drive around door to door and sell fish. I like being on the water. And with [my other] business, I’m already dealing with tons of emails and talking to people on the phone. I don’t really want to do that with fish as well. I’m not going to do a 14 to 16 hour day and then get on the Internet and post that I have fish for sale. We might try a little bit of it with crab, but I’m just going to wait it out and hopefully there will be restaurants again in the next year or two.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Participants indicated recruitment and retention of participants is difficult, especially for crew.

- One participant shared how the fleet’s demographics have tended to shift toward the younger generation of fishermen as more people are approaching retirement age. However, one participant stated it is difficult for people to start out in the fishing industry because of the increasing costs to fish, including increased costs of fishing permits, and the need to travel further from port.
- Another participant explained fishermen cannot keep crew employed full-time because living in the Bay Area is expensive. When fishermen find good crew, they will often leave and end up

buying into the fishery, while those that are not great crew members will typically leave for another industry like construction.

- One fisherman shared it has been hard for them to find good, competent crew members. Another fisherman added it is also difficult to recruit crew members because there is not enough money in the job.
- Another participant reported fishermen need to provide steady work for their crew or they are not able to retain them in the off-season.
- One fisherman reflected on how they have cultivated long-term relationships with their crew and have had the same people for the last ten years.
- Several participants explained people often have a romantic view of the job but then they realize a lot of work and preparation goes into getting ready for the fishing season with little to no pay.

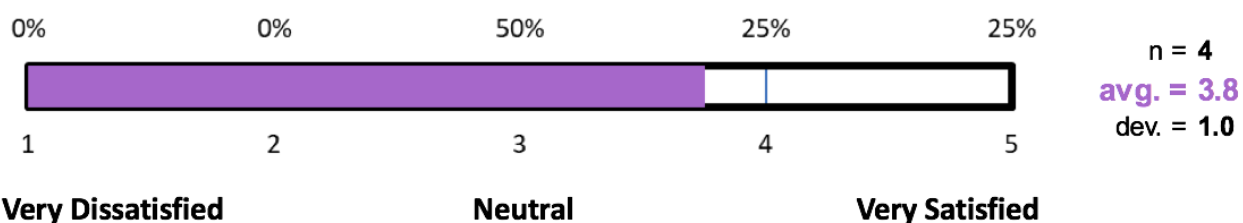
Participant Quotes

"There really isn't much left for the young fishermen to just come in and start fishing for something. You have to buy a permit. You have to travel. The industry is turning into traveling. If you want to fish salmon, you better fish the whole season and you better travel. You can't just fish right out in front of where you live [. . .] they can't fish out of their port, and crab is turning into the same thing. You better travel if you want to make it. So the small [few] that stayed home, even with permits, are starting to go away."

"It's expensive to live here [in the Bay Area]. It's [fishing] at best a part time job. Most of the time, because there are such different fisheries, you can't keep somebody employed all the time. And that makes it difficult to keep people. If you do get someone good, they end up buying their own boat or getting into the industry. If you end up with someone bad, they don't last. They either leave to get a full-time job doing construction or something else. Just not enough money in it in the crew aspect."

"Crew is probably one of the most difficult aspects of owning a boat. I've had literally hundreds of crew in my career [. . .] A lot of people think they want to go fishing and they have this kind of romantic image of it and they watch America's Deadliest Catch and they get inspired. But what can often happen is there's a lot of preparation to get ready for the crab season. There's a month of work to do in the shed, which typically there's no pay for the crew. It's part of their job to get the traps ready and get the boat ready for the fisheries. And they get out there on the first day and realize they've made a terrible mistake. And that's happened to me so many times."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Several participants indicated being a fisherman brings them a sense of fulfillment and pride, but given the nature of the job, satisfaction is also related to whether fishermen are able to be successful and support a living from fishing.

- One participant mentioned fishermen who are willing and able to put effort into fishing are more satisfied with their jobs.
- Another participant explained dissatisfaction as a fisherman is often related to factors such as the need to take on a second job, a fishery's management, and weather conditions.

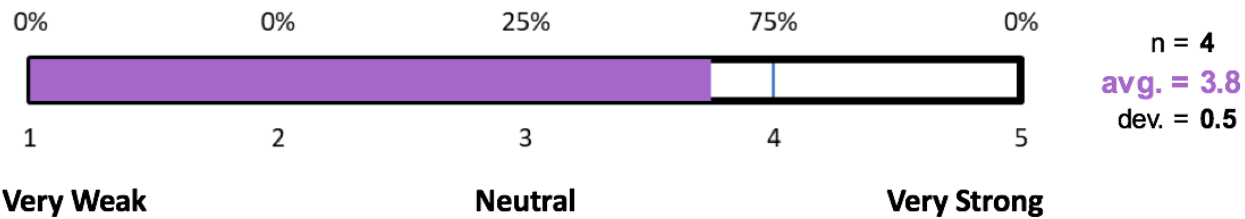
Participant Quotes

"The thing that drew me to wanting to be a fisherman when I was a kid was I would go down to the wharf and I'd see the old fishermen, and they were too old to go out anymore - their families wouldn't let them go on the boat - but they still came down to the wharf every single morning at five in the morning to have coffee and hang out and stuff, and so I thought, 'wow, that must be a great job,' you know, they just want to keep doing it for their whole lives. And the other fishermen, [. . .] I can't imagine them wanting to do any other job. I'd say they're extremely satisfied because there's as much complexity to making a living fishing as any human being could ask for. People take great pride in their boats and the competitive aspect of fishing and all that. Once they figure out that they can do it and be successful most of the time, it seems like they want to do it their whole lives."

"Fishing isn't like any other job. You're not on the time clock. It's always a 20 hour day. But if you love doing it and love being on the ocean, handling the fish and doing boat work and stuff, it's the most satisfying job you could imagine. As long as you can make a living out of the money because that's part of the enjoyment of it is catching a lot of fish and making a big pile of money very quickly, which you can't do in other jobs."

"I'm looking at a lot of guys that are in the industry with me and a lot of them are dissatisfied. They have multiple jobs because they don't feel satisfied that they can have success [. . .] But The sense of job security? Are you kidding? That's not going to happen. The level of stress? Oh yeah, there's a lot of stress. [. . .] But then all of a sudden you get one of those days when it's flat, calm, no wind, and the fish are biting like crazy and you're loading up. And you wouldn't be anywhere in the world to have another job for any reason. [. . .] Even the worst day fishing is the best day doing anything else. But that's when you're successful with doing it and you have the patience, you have the endurance to keep on doing this. [. . .] If you're a fisherman and successful, you're not doing anything else. That's it. It's in your blood. You're not going to go be a carpenter. You're not going to go be a plumber. If you did that, your mind would still be out on the water."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants reported social relationships among fishermen in the San Francisco area are strong.

- One participant stated there is leadership and organization within the San Francisco Crab Boat Owners Association.
- Another participant described the culture at the wharf. There is a sense of trust and understanding among fishermen and they look out for each other on the water.
- One participant shared that they have great respect for the fishermen at the wharf who work to support the fisheries, especially those that engage in market price negotiations.

Participant Quotes

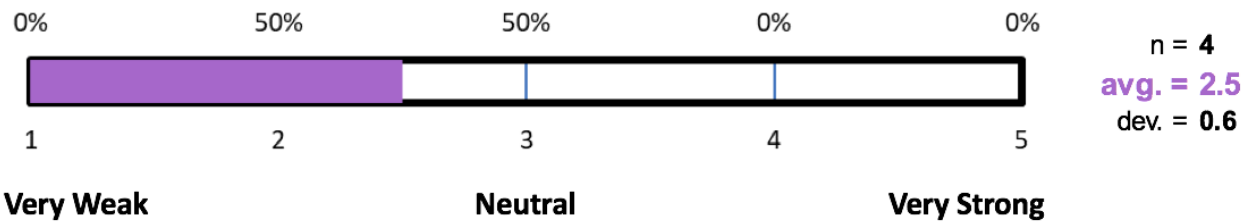
“A good example [is the Crab Boat Owners Association. They’re] doing a great job, working really hard and we appreciate it. I'd say there's pretty good cohesion at the wharf. We have meetings and there's always talk.”

“The wharf is kind of like a small subculture, it has its own sort of rules and codes of conduct.”

“Some of my best friends are down here, the people that would come and save you if you were sinking, and [. . .] some people you just don't share opinions with. And that's just the way it is. But a lot of the guys here, regardless, would come out and save you if you were sinking. They don't want to see you die.”

“I wanted to say one thing and this is to [name redacted] and your gang there [at the wharf]. [. . .] I respect you guys and your decisions and the Owners Association. [. . .] We appreciate all the work that you guys do, working with the markets and stuff to set up market structure for the crabs during the season when it opens. But we also respect everything that you guys do in the harbor. And that's one of the things that I wanted to put in here as far as social relationships among fishermen, fishermen that are working for the fisheries. We respect them. And I respect you very much. And I want to say thank you.”

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants believed relationships with groups outside of the fishing community need improvement.

- One participant stated how the commercial fishing industry is portrayed by various environmental non-governmental organizations (ENGOS) negatively affects how agencies and the public view fishermen and their activities. However, there are some NGOs that understand the importance of a strong fishing community.
- One participant shared that while fishermen are generally involved in state and federal processes (e.g., working groups, Pacific States Fisheries Management Council) and communicate with decision makers, they do not feel they are being heard as is evidenced by the lack of policies supporting the fishing community.
- Another participant encouraged people to learn more about the fishery and to engage more with fishermen. They added there used to be public events that educated the San Francisco community about fisheries that operate out of the port, which helped encourage positive public perceptions of the industry. Those events have diminished in recent years.

Participant Quotes

"As far as [external relationships] there could be some massive improvement in that because of the bad image that we receive from NGOs, but then there are some NGOs that are extremely helpful and understand how important it is to have a strong fishing community. In terms of the agencies, it's very hard to educate them about how important the commercial fishery is. I think they hear a lot of stuff from NGOs that don't like us and don't want to see us fishing, or want us to fish in the manner that they approve of which would mean that we would all go out of business, so that's all problematic."

"On the NGO front, you've got to separate environmental NGOs that are trying to shut fisheries down or trying to curtail certain types of fisheries versus non-profit organizations, because some of the organizations we work through are NGOs and those NGOs we have constant contact with, and they are fishing representative NGOs. So we do deal with non-profit organizations. We are in contact with the [California Department of] Fish and Wildlife, [name redacted] is on the Whale Advisory Group. So as far as communicating with the Fish and Wildlife, with politicians in Sacramento, we are doing that. We aren't getting the results we want."

"I always thought that people should know more about the wharf and the fishermen there and the culture there. I think it used to be like that, they used to have parades and just a lot of community involvement down there, which has kind of gone away. So I'd like to see more of

that to counter the disinformation that the public is getting from the NGOs and the media. That's kind of our biggest problem."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants offered suggestions for how managers and fishermen could help to support their fishing community and the commercial fishing industry.

- Participants asked that managers more actively engage with fishermen and give the fishing community's insights and feedback as much weight as they do scientists' and NGOs' in their decision-making. Fishermen would be more inclined to communicate with managers if there were meaningful relationships built on trust between fishermen and managers.
- One participant emphasized the need for fisheries managers to understand the importance of the commercial fishery and how current management is a threat to the seafood supply and jobs in the fishing industry.
- Another participant communicated fishermen would like to know more about policy initiatives like Assembly Bill (AB) 3030, including what it would mean for fishermen and whether it would consider existing MPAs and other areas closed to fishing.
- Participants encouraged other fishermen, especially younger fishermen, to get involved in the policy processes that affect their fisheries and highlighted the need for unity among the fishing community when engaging with NGOs and others. Even though it may seem daunting to get involved, what matters is that the fishing community is working together toward a common goal.

Participant Quotes

"As far as fisheries management and fisheries managers and those that are in that position, come down and talk to us [. . .] listen to us. We're in the field here. We're not looking at a book or some statistics. We're here every day out there. We know what's going on. If you want to do adaptive management especially, come to us, ask us what's going on and get the latest information. We'll tell you if we can trust you, that's important to build. So build that trust. Build that trust where we can communicate."

"The agencies and the politics and the legislature - I do feel like they don't fully understand the importance of the commercial fishing industry to the state of California and the people, not just those that fish for a living, but all the jobs and the infrastructure that's dependent on people producing fish and the people who want to eat fish. I think you're not getting the message that this heavy-handed approach to management is gutting our industry and there's going to come a time when we're not going to be there to supply them with seafood."

“To the fishermen, I'd say try and look at the overall health of the entire fishing community and not just your own personal business plan. There's lots of conflict between big boats/little boats, north/south boats, boats that travel/boats that stay in their port or fish out of it in front of their home. But when you start throwing other commercial fishing user groups under the bus, you end up throwing your own self under the bus in the end, and I've seen this time and time again because without unity, the people that want to see us disappear are going to succeed because they'll play us against each other. And that's a huge danger.”

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

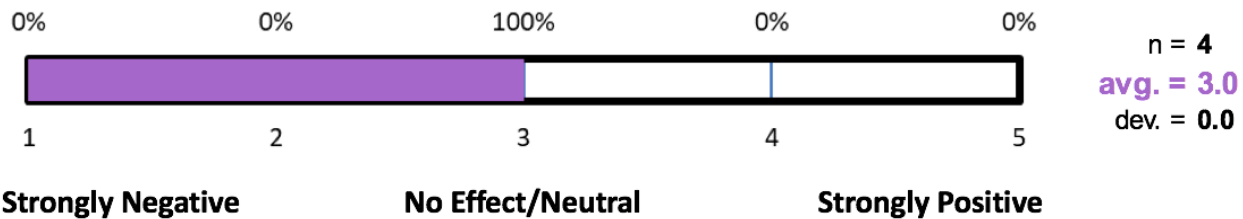
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants reported they have not seen any effects on resource health, positive or negative, related to the MPAs with regard to abundance, diversity, size, habitat, or market quality. They emphasized the MPAs only affect where fishing can occur but do not control for any other factors that affect fisheries (e.g., quotas, pollution).

- One participant stated this is a difficult question to answer because they would need to see the results of MPA monitoring studies to assess MPA impacts on resource health.
- Another participant believed fishing activity was not negatively affecting marine resources in areas that were eventually designated as MPAs, so by closing areas to fishing activity, the MPAs did not have an effect on resource health.
- One fisherman noted MPAs are one of several factors, including quotas or rockfish conservation areas (RCAs), that could affect marine ecological health. They believed that if there is any evidence of improved health, people will attribute it exclusively to the MPAs regardless of the cause.
- Another fisherman knew of MPAs that had a negative impact on marine resource health. Specifically, in the Bodega Bay area there are sea urchin barrens because of the restrictions on sea urchin harvesting.

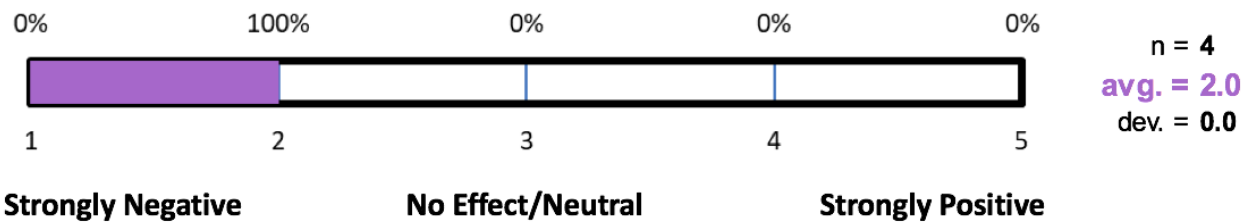
Participant Quotes

“You couldn't say, ‘OK, the closure at Point Reyes made a difference in my catch down here.’ You can't say that. I mean, this kind of question, you would have to have studies done to qualify this. So as far as saying whether it's had an effect, I agree with everyone else. Obviously, it's no effect or neutral. You have no way to quantify it. [. . .] There is no way I could say with my view of what I catch and what I fish for, what I have seen with my own eyes, fishing next to MPAs, that there's any difference.”

“I'd say it's neutral because the MPAs were focused on stopping fishing in those areas. That was the whole point of it, to keep us from fishing in these areas, but we weren't doing any harm in those areas to begin with. [. . .] I don't see any positive effect whatsoever of the MPAs on abundance of fish. Talking about the spillover effect, I think that's all false. [. . .] I'd say there's no positive outcome from the MPAs in terms of the fishing industry.”

"I think it's hard to really assess for a number of reasons, and one is there's more than just MPAs. There's restricted quotas that [. . .] I think probably keep people from fishing any area more than it being an MPA. And then there's the RCAs. And so I think probably what will happen is that whoever decided this [the MPA network] is a good idea will take credit for it working, even though it probably isn't really possible to tell whether it really made any difference or not."

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary Participants reported MPA impacts on livelihood outcomes vary across fisheries but believed the area from Point Reyes to Point Arena was disproportionately affected overall because there were historically valuable fishing grounds in that area.

- One participant stated the rockfish, sea urchin, and kelp fisheries were heavily negatively affected by closures that were placed in once productive fishing grounds.
- Another participant explained the MPAs have resulted in fishing effort being concentrated outside the MPAs because fishermen are trying to fish close to their traditional fishing grounds. Additionally, scientists have theorized that fish populations will increase in abundance inside the MPAs, leading to increases in abundance along the MPA boundaries. However, they explained that fishermen have yet to see this spillover effect.

Participant Quotes

"They're [the MPAs] areas you can't fish to earn. So it does cut out some of the ability to earn. Some fisheries are very, very slightly impacted and others are greatly impacted."

"There's this [. . .] aspect of people trying to fish around the edges of these MPAs and when you take away fishing grounds and people focus on whatever's available, they put more pressure on those areas."

"Shift of effort [has occurred] as well, where the effort shifts to the boundary. And [. . .] because of the fact that you're drawing from a certain geography and as the geography is limited, it's theorized that over time that abundance increases in those closed areas. And your success [increases] closer to that line where there's greater abundance and your catch is going to be higher. So everybody wants to stay in close [to the MPAs]."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Of the MPAs that participants identified, most have had a negative impact on fishermen.

- *Point Reyes State Marine Reserve (SMR) and State Marine Conservation Area (SMCA):* Several participants stated the Point Reyes SMR was among the best fishing grounds for halibut in the area and has resulted in notable income losses for halibut fishermen. One participant explained there has been a build up of crab gear along the Point Reyes SMCA, increasing the risk of whale entanglements near this MPA. Another participant noted this SMCA only allows for salmon fishing.
 - One participant questioned the reasoning behind the designation of these two MPAs since they cover mostly sandy bottoms. They suggested the MPAs were chosen without any particular conservation goals in mind. Another participant believed they were designated as MPAs to produce habitat replication and connectivity with other MPAs in the network.
- *Montara SMR:* One participant shared how they have seen large crabs moving out of this MPA.
- *North Farallon Islands SMR, Southeast Farallon Island SMCA and Special Closure:* Several participants noted these MPAs encompass once productive rockfish fishing grounds. They believe the areas directly outside these MPAs experience increased fishing pressure and concentrations of fishing effort as a result of these MPAs. Because of these MPAs, fishing pressure cannot be more spread out.
 - One participant commented the North Farallon Islands SMR should have been designated as an SMCA to allow for salmon fishing, and that the overall planning for these MPAs was not done collaboratively.
- *Duxbury Reef SMCA:* One participant shared that because they can still rockfish here, this MPA did not have adverse impacts.
- *Reading Rock SMR and SMCA:* One participant shared how these MPAs affect Dungeness crab fishing because fishermen must travel farther to fish around these areas.

Participant Quotes

"You can't [Dungeness] crab and you can't fish for halibut [in the Point Reyes SMR or SMCA] so that just seems kind of pointless because neither of those [species] really needed to be protected. Some of it seems kind of misguided. And it's all sand bottom, so they just just picked an area to just have an area to protect."

"We lost some of our greatest halibut grounds at the Point Reyes SMR. That was an impact for us and we didn't like it. And in past years, we've lost measurable income for that in that particular geography."

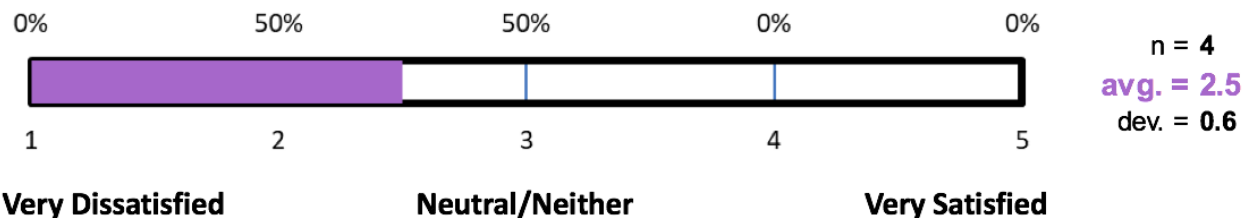
"The Point Reyes [SMCA] - that's a real productive [Dungeness] crab area, but then because suddenly they've created this boundary line, everybody wants to have the inside lay on that

boundary line so boats are piled up here on top of each other. And it creates a severe hazard for whales moving in and out of Drake's Bay because suddenly there's this unusually high number of traps, all in one specific area, which is very hazardous in terms of whale entanglement."

"[The North Farallon Islands SMR and Southeast Farallon Island SMCA and Special Closure] took away significant areas for rockfish fishing which I consider is negative because with any kind of fishing, you don't go to the same spots over and over again, you need to spread the effort out. So when you take areas away, it impacts the areas that are open in a negative way. [. . .] It just would be better if everything was open and you can pick and choose the area where you want to go each time."

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants expressed their dissatisfaction with the MPA implementation process and current MPA management.

- Several participants were involved in the regional stakeholder group for the North Central Coast region and shared their experience and perspectives on the MPA implementation process. One participant believed the process was disingenuous and driven by the values of the funders. They thought fishermen were involved only as a box-checking exercise and, as a result, their perspectives were not seriously considered. Many of the initial proposed closures highlighted that those involved in designing the MPA network did not understand the safety issues for fishermen (e.g., not allowing anchoring in the MPAs since many offer reprieve from inclement weather).
 - One participant shared the belief that fishermen were asked to join MPA designation discussions to disclose where they fished so those areas could be designated MPAs.
 - Another participant believed MPA locations were more heavily weighted toward rockfish habitats rather than a diversity of species and habitats.
 - One participant noted that while the goal of the MPAs was 'protection,' MPAs only protect against fishing and not other impacts (e.g., oil spills, changes in ocean conditions).
- One participant stated there should be better communication of information and decisions related to the MPA network and more opportunities for fishermen involvement in MPA management and decision making. One fisherman shared they had not heard of information related to the MPA network or MPA management since the MPA designation process until they were invited to participate in this focus group.

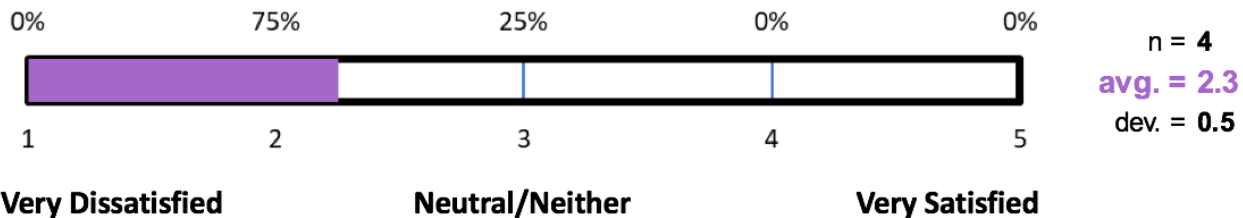
Participant Quotes

"That's why the fishermen were there - to find out where you fished and then that was going to be the target [for MPAs]."

"What are they protecting? What about an oil spill? Is that [the MPA network] going to protect against an oil spill? No, obviously not. But these people said that protected means protected against everything, even things that you can't protect against like weather and ocean conditions. There are things that you don't protect them [marine resources] from. So basically it's focused on fishing, period. And is that valid? No."

"Fairness? What's fair? To who? [. . .] I don't see enough communication of information and decisions; I think that can be improved. Opportunities for fishermen involvement - I think that those need to be brought to the fishermen. Like I was saying earlier, communication with departments would be a beneficial aspect for all parties."

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants shared their dissatisfaction with MPA monitoring, stating there has been poor communication of results from past and ongoing research.

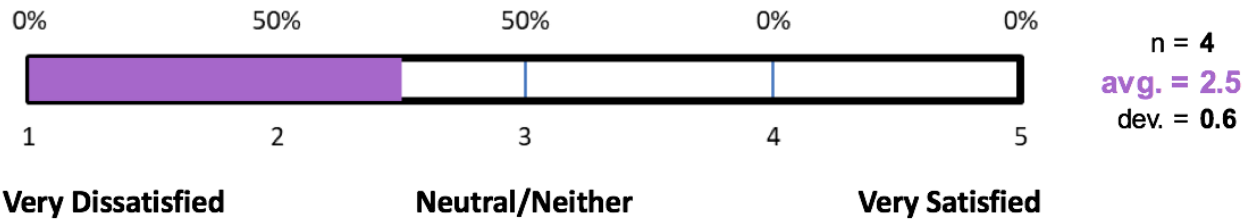
- One participant explained it was unclear if there has been any work to determine if MPAs are meeting their identified goals.
- Another participant suggested that fishermen be more involved in monitoring efforts.

Participant Quotes

"I haven't heard anything about monitoring or any sort of scientific study to see if [the MPAs are] even worth having. If they're not accomplishing anything, why bother? Why not just open everything back up again? I'd obviously like to see that happen."

"How satisfied do you think fishermen are with monitoring? No one knows because the communication is not there. So you want to have collaboration with fishermen? I go back to what I said before, build that trust, talk to the fishermen, get the fishermen involved in this more, and maybe it might work."

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants were generally dissatisfied with the clarity of MPA regulations and the fairness of enforcement.

- Several participants stated managers assume all fishermen have access to or know where the MPA boundaries are but that is not the case, especially at the time of MPA designation, since not all fishermen have a GPS. For those that do, the MPAs are not marked on all GPS software.
- One participant indicated the rules and regulations are unfair because fishermen are penalized for gear that drifts over MPA boundaries due to factors that are out of their control (e.g., currents). However, there are still some people who are willing to fish right along an MPA boundary or take the risk of fishing inside an MPA because the rewards are high compared to the risk of enforcement.
- Another participant shared there has traditionally been a lack of funding for enforcement above Point Reyes.
- One fisherman believed they should be able to fish in California waters without MPAs, which negatively affect their ability to earn a living from fishing.

Participant Quotes

“We had a problem with figuring out how to determine where these [MPA] boundaries are. [. . .] Obviously, the only way you could do it is with the software in your computer. Did everybody have software in their computers? Not all the time. At the time, no, not all boats did. [. . .] And so they're assuming that everyone has a GPS and has that software and is able to take it and recognize where these boundaries are.”

“One of the hazards to fishing on a boundary line is every time you pull your trap, depending on which way the current or the wind is going, your trap walks. It moves a certain distance, up or down, so people are pulling and setting their traps back, and their traps end up over the boundary line.”

“I can see enforcement problems above Point Reyes, in those areas, getting boats from the Fish and [Wildlife] Department. The funding to be able to do the enforcement up there was difficult and still is.”

“Personally, I think that I should be able to fish legally in the state of California and make a living, and if I can't, then something's very, very wrong with the whole setup.”

19. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants shared several concerns about the MPAs with regard to current management, the MPA implementation process, and the future of the closures.

- One participant stated more needs to be done to justify the existence of the MPAs because they are expensive to enforce and maintain. Additionally, they cause large, negative impacts on fishermen.
- Another participant believed there should be fewer discussions about increasing closed areas until the current ones can be effectively managed. One participant highlighted MPAs cover some of the most productive fishing grounds, and that with the proposal to create more closures through AB 3030, there would be very little area accessible to fishing.
- Another participant reiterated that involving fishermen in MPA monitoring and communicating with the fishing community about the effectiveness of MPAs, including their shortfalls, is important.
- One participant expressed support for preventing heavy boat traffic in biologically important areas (e.g., around the Southeast Farallon Islands), but fishing has less of an effect on seabirds and other marine life compared to activity from larger vessels.
- Another participant recounted how the MPAs were justified because of the collapses in rockfish populations as a result of mismanagement where trawlers, gillnets, and large fishing fleets decimated the resource. Since these are not as much of a concern today, the closures should be reconsidered.
- One participant shared the belief that the MPAs ended up larger than they should have been but that their size was needed to satisfy special interest groups involved in the MPA planning process.
- One participant emphasized closing an area without the prospect of reopening it in the future once the resource has improved is improper fisheries management. They highlighted the example of how RCAs were opened to fishing because the health of the species was doing better.

Participant Quotes

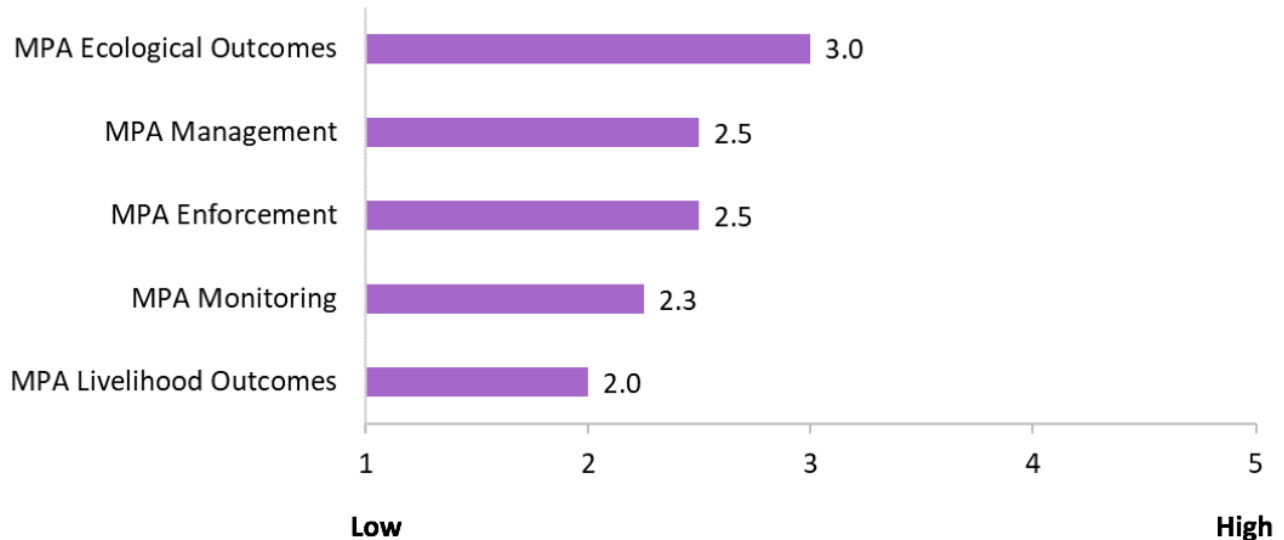
“There seem to be more reasons that [the MPAs] cause damage than they do good, so unless [managers] can make a better case for their existence, even the ones that we have currently, how can there be conversations about increasing them, like what they’re saying about the 30 percent [AB 3030]? That just seems like insanity. It’s death by a thousand cuts.”

“Communicate with us [fishermen], show us what [the MPAs are] doing, [. . .] involve us in the monitoring and let us know what’s going on.”

“I think it’s hard to really put your finger on [whether the MPAs are working]. Obviously, rockfish populations have increased, but it’s hard to really give the credit to one thing [like MPAs]. But like I said, if they’re working, don’t increase them and take away any possibility for fishing. And [if] the state doesn’t think they’re working, then the solution is to get rid of them, not to increase them. So in either case, increasing them doesn’t seem like it’s necessary or really the right direction to go.”

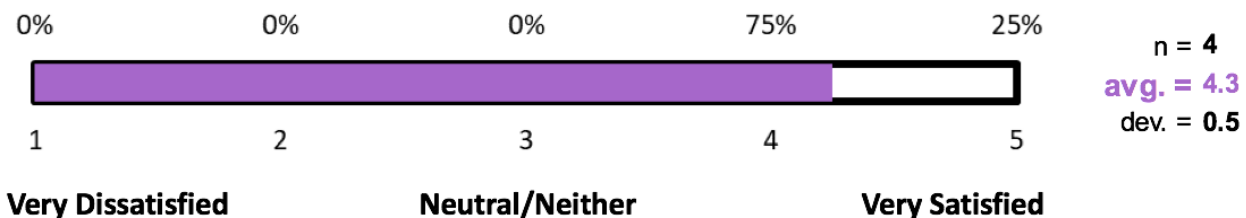
“MPAs are not fishery management because they're not going to reopen. Fisheries management was that depth that they shut down for rockfish [through RCAs]. And then when the rockfish did better, they opened it up to deeper waters. That's the management process. This isn't fisheries management - [it's like] shutting down highways because you don't want to monitor speeding or accidents and just closing them down.”

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



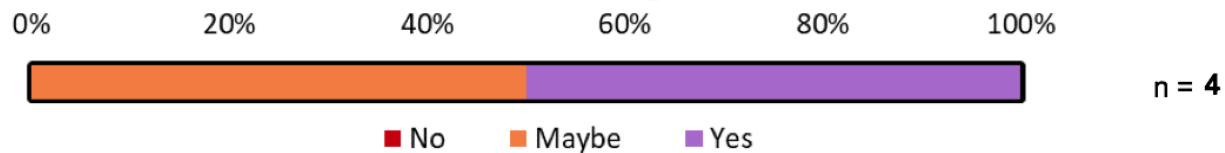
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future *Would you be open to participating in a virtual focus group or meeting like this in the future?*

(**Note:** For the following figure, the length of the orange bar indicates the percent of participants who responded 'Maybe' to question 20b. The purple bar indicates the remaining percent of participants who responded 'Yes.' If participants responded 'No,' a red bar would appear.)



20c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Participants appreciated the opportunity to be involved in this discussion and believed it was a step toward better communication with fishermen.

- One participant stated they were satisfied with the process and that they were open to participating in similar meetings in the future.

Participant Quotes

"I appreciate you listening and giving us the opportunity to weigh in on these important matters, and I think you guys did a great job. In the future, hit me up."

"I was very satisfied. Thank you very much for putting this all together and giving us [this space to share] input. Communication, as I keep stressing, is most important. And you have the ear of certain people that are going to be able to listen to you. Yes, I definitely appreciate what you guys have done, opening up potential avenues of communication. We'll see what happens. You can count on me to be here whenever I can."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network

Members of Princeton - Half Moon Bay's Commercial Fishing Community

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Princeton - Half Moon Bay

Date: Thursday, November 19, 2020

Participants: Barry Day, Don Marshall, Porter McHenry, Kyle Pemberton, Frank Sousa, two anonymous participants

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

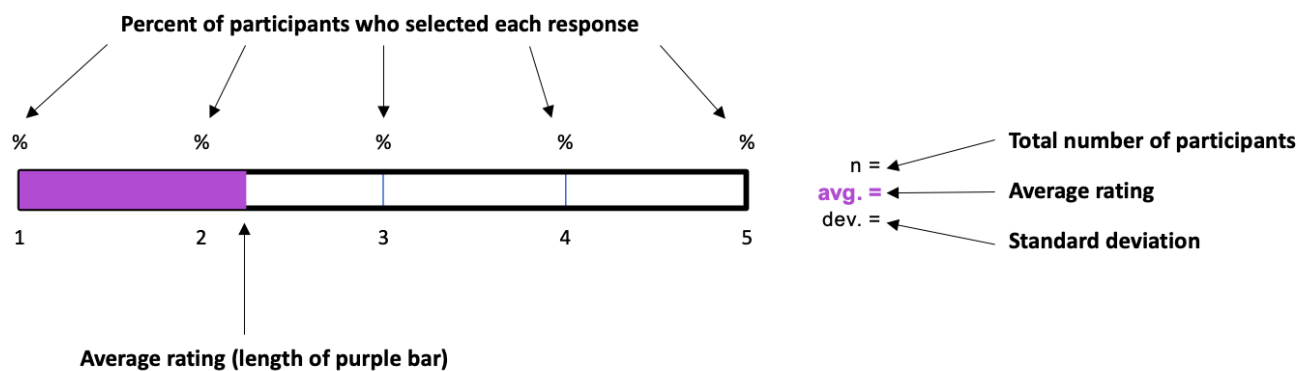
Overview

On November 19, 2020, seven commercial fishermen operating out of Princeton - Half Moon Bay participated in the thirteenth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 15 and 23 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

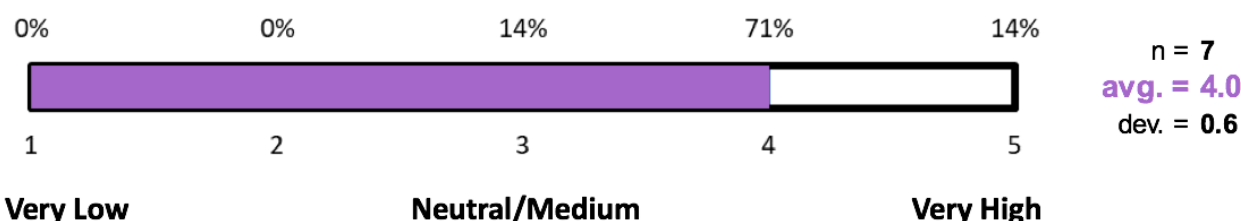
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Central Coast](#)
 - [State of the California North Central Coast: A Summary of the Marine Protected Area Monitoring Program 2010–2015](#)
- [MPA Baseline Monitoring Program: Central Coast](#)
 - [Summary of Results from Baseline Monitoring of Marine Protected Areas 2007–2012, Central Coast](#)
- [Marine Protected Area Monitoring Program, 2019–2021](#)
- An article about Governor Newsom's [Executive Order related to protected areas and the 30x30 initiative](#)

Our Project Team would like to express our appreciation to the seven Princeton - Half Moon Bay fishermen—Barry Day, Don Marshall, Porter McHenry, Kyle Pemberton, Frank Sousa, and two anonymous participants—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants reported marine resource health varies across species but generally felt the ocean is fairly healthy. Several participants commented on the cyclical nature of marine resources from year to year; while they believed a number of fisheries are currently in a low cycle, participants stated there is good resource abundance and diversity overall.

- Several participants stated select groundfish species have rebounded after periods of poor health.
- Participants perceived Dungeness crab to be in a down cycle but were not concerned because they believed that species like crab, shrimp, and squid are cyclical.
- Several participants believed salmon abundance has been consistently low. One participant reported they recently had a good year for salmon fishing.
- One participant indicated overall marine resource health is high due to anchovies because they perceived anchovy abundance to be high, which they believed is the driving force behind all ocean dynamics.
- One participant said that although the ocean seems to be doing well, it could be healthier.

Participant Quotes

“Overall, I feel that resources are fairly healthy. The last few years, it seems like most of the people are able to make a living [given current resource health], at least.”

“It's such a broad spectrum, so many different species. But I look at the main species that our port catches. And I feel like salmon's obviously been challenged. I'm not even a salmon fisherman, but that's been my observation over the years. And we all know about cycles. And I think crab is looking like it could be on a downward cycle at the moment. And that's just the way the ocean always is. I mean, we've seen a number of cycles over the years. Groundfish seems to be pretty healthy. Looking at the ocean itself, it seems healthy to me. [Name redacted] experiences the ups and downs of squid, and I guess it can be attributed to cycles. But, again, I don't really know why it doesn't feel healthier to me.”

“There's a pretty good abundance in some of the species, but [. . .] from year to year, salmon lacks. So I wouldn't really want to say ‘Very High,’ but there are some species of groundfish that have rebounded and some opportunities year to year in crab and shrimp and other fisheries.”

“I put ‘High’ there for the abundance and, well, we all know the ocean’s ruled by the anchovies which is all happening. And I did alright on salmon this year, and the cycle of crab.”

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants were concerned that current fisheries management practices will not contribute to the long-term health and sustainability of marine resources and were less worried about future ocean changes. Several participants expressed concern about future threats to salmon populations.

- Two participants suggested fisheries management in California can be improved to ensure marine resources are healthy long-term. They compared management in California to that in Alaska, where they believe management is better suited to supporting commercial fisheries through the use of real-time fisheries management.
- Several participants believed better management practices are needed to help reverse the decline of salmon habitat and stocks. One participant suggested a return to hatchery production akin to the 1970s and 1980s as a potential solution.

Participant Quotes

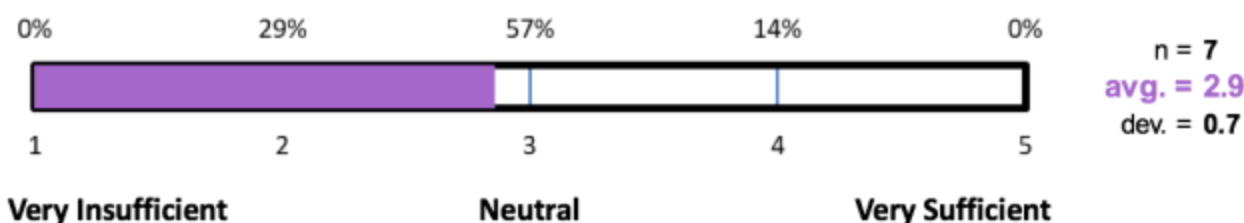
“I rated myself ‘Extremely Worried’ when it comes to the effectiveness of management. [. . .] I think that a lot of things that they come up with say that [they will support the long-term sustainability of marine resource populations], or allege that.”

“Besides salmon, the long-term sustainability of the ocean seems real healthy and very well maintained. I'm not worried about the populations. [I'm more concerned about] the management of it than the actual populations, except for salmon.”

“Salmon specifically, I mean, habitat degradation could change - they could do more for that, and they could do more for the hatcheries and they could ramp up hatchery production like they did in the 70s and 80s. But they, for some reason, really haven't. They're worried about genetic anomalies and things like that. And so in some cases in Alaska, they don't really do that. It's a different kind of management. It's a different kind of socioeconomic situation. There's not as much diversity there, so there's a little more attention paid to commercial fishing and here: not quite like that.”

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants identified several factors that inhibit local commercial fishermen's access to marine resources, including financial barriers and fishing season restrictions.

- Participants highlighted the very high cost of fishing permits, particularly for Dungeness crab and squid, which can pose a financial barrier to entry. Several participants emphasized that while permits have always been required to access limited entry fisheries, the price of those permits has increased.
- Participants explained that even though fishing permits may be available, purchasing a permit does not guarantee fishermen will be able to participate in that fishery during a given year (i.e., if the fishery is closed, delayed, or shortened), even if the resource itself is healthy/abundant. This uncertainty was a major source of concern among participants, particularly with regard to how it might affect the longevity of the commercial fishing industry.
- Several participants reported there is consistently insufficient access for the Dungeness crab fishery, despite sufficient species abundance to support the local fishing fleet. One participant stated restrictions on crabbing started with trap limits, but now include shortened seasons (i.e., loss of the entire spring and potentially fall season due to marine life entanglement issues in Dungeness crab gear). Another participant believed increased restrictions were the result of outside groups, such as environmental non-governmental organizations (NGOs), influencing management decisions.
- Participants discussed the irregularity of access for the groundfish and salmon fisheries. Specifically, one participant recalled that several years ago, the commercial season for salmon was closed but the sport/charter salmon fishery was open. They desired finer scale, in-season management practices for the commercial fishery in similar situations in the future, similar to fisheries management practices in Alaska.

Participant Quotes

"Management is the one [thing] that concerns me the most. It just feels harder and harder to have the ability to do what you need to do. If you got the access, there's ten million other things and barriers that are beating you down. So it's challenging."

"Everything from access into squid - you need four million bucks - [to] crab: a lot of it boils down to money [. . .] it's a fortune to buy a crab permit and go crabbing. It's hard to get that kind of money."

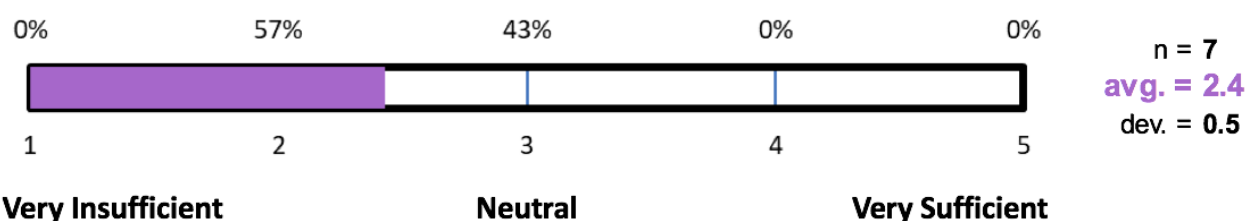
“Ten years ago, I bought my first crab permit for \$20,000, and it came with 25 traps and a 14-inch hauler, and it came with the ability to fish for seven and a half months of the year. My most recent was more along the lines of \$200,000 and has a much more insufficient amount of fishing time with it [in] the last few years. So there is access, but I would [not] call it reasonable access financially. Most people can't come up with that kind of cheddar. And if they can, it's most likely because they've had history in the fishery.”

“It's a fortune to buy a crab permit and go crabbing. It's hard to get that kind of money. And then with all [. . .] the management [season closures], it's getting scary now. I mean, we're all in the same boat here with this crab season being delayed and on and on.”

“The crab fishery [is] changing quite a bit. We went with trap limits years ago and then we lost our spring fishery and we're slowly losing our fall fishery.”

“This year was pretty decent access to the king salmon fishery in the summer. But I would still give it an 'Insufficient' because I have not forgotten about three years ago when we did not have a season for commercial and the sport fishermen were in front of our harbor battering the salmon every day. Some of the charter boats were making two trips. And instead of employing in-season management like they do in Alaska - more of a real-time management - they allowed us to just sit there and watch while everybody was tied up.”

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants reported that income from fishing is often not sufficient to support livelihoods for both captains and crew.

- Due to the uncertainties of access (as discussed in the **Discussion Summary** following question 3. *Access to Harvestable Resources* on page 5), one participant stated they had to supplement their fishing income by taking on other jobs in order to recoup the money they invested to prepare for the Dungeness crab season. They expected others would do the same if they had the opportunity. Another participant added that fishermen are still responsible for day to day expenses, whether or not they are earning income from crabbing.
- One participant explained that although a deckhand could be making sufficient income in the fishing industry compared to other similar jobs, their income is insufficient to cover living expenses in the Bay Area.

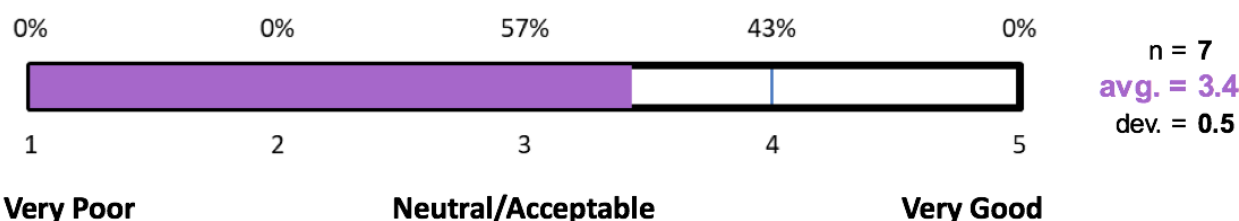
Participant Quotes

“When the access is there, we can make a buck. But when it's not, it's not. And me personally, for the first time in my career, I decided to diversify into other businesses just to give me a safety net. This is the first year I've ever felt like I'd like to have that safety net given the status

of crab, the Newsom order [Assembly Bill 3030], the inconsistencies of salmon and the inconsistent access to groundfish [. . .] Right now, what I'm doing is mitigating current loss [because] we're all not crabbing. So if you can get another job and figure some other line of work out to make money, I think there's a fair amount of guys that would want to do that. It's also a safety net if they decide to really pull the plug on this thing with all of our money on the line and all that we've invested and all of our time and crab pots and family: [you] need to have a safety net. Fortunately, I was lucky that I had an opportunity to diversify into something else and take that chance for right now. I'd love to just fish full time: that's ultimately what I'd like to do, but as it gets cut down, it gets scarier and scarier for all of us."

"I'm just thinking about the Bay Area in general: the deckhands that could be making a good amount of money - a guy might be making \$80,000 or \$100,000 a year - that's actually not enough because you're in the Bay Area. I mean, it's crazy - guys are spending \$2,000 or \$3,000 to rent a place, a one bedroom place here. It's a lot of pressure on captains even to try and get these guys paid properly and keep 'em busy and everything."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants indicated markets are generally good for fishermen in the Princeton - Half Moon Bay area. Several participants discussed various marketing opportunities that are available for local fishermen.

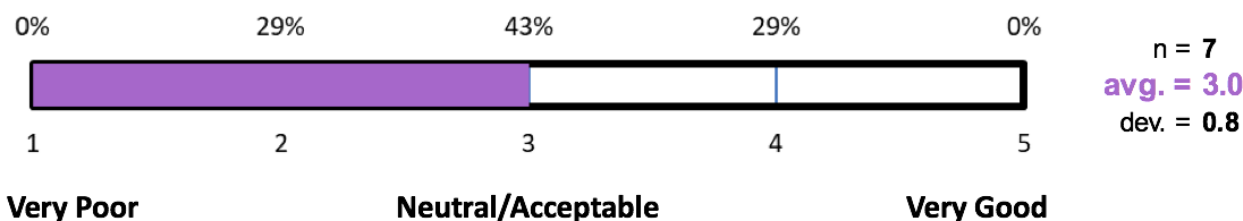
- When discussing markets for the main fisheries that operate out of the port, one participant stated fishermen are able to consistently obtain good prices for Dungeness crab and salmon. They added there are enough salmon buyers in the area that fishermen have the option to shop around for the best price. They compared their local markets to those of other ports, where they have heard price negotiations are more difficult.
- One participant identified direct-to-consumer dockside sales as an important market that supports Princeton - Half Moon Bay commercial fishermen.

Participant Quotes

"I feel like the markets overall have been pretty good. The majority of the fishermen in our port I would say are salmon and crab. Compared to some other ports, we always seem to have the option to get a good price for our crab. It's been quite a few years since anybody's got put on limits more than perhaps short-term and [during] a couple of real big starts for crab. Salmon I feel there's enough different buyers that the guys [are] willing to work and call around and they're able to get a good, decent price."

"We got that option of dock sales which I used pretty heavily, so that sort of tends to put me in the 'Good' there."

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants indicated that while the infrastructure in Princeton - Half Moon Bay is good relative to other ports, it could use improvement in some areas.

- Several participants said the ice machine they use is only somewhat reliable and is known to break down from time to time. They explained that when it is working at full capacity, it produces enough ice to support a greater volume of catch compared to other ports' ice machines like Santa Cruz.
 - One participant said the ice machine in Princeton - Half Moon Bay was not working at the time of the focus group, and they did not expect it to be fixed for several weeks. They related this lack of urgency for repairs to a drop in demand for ice due to the delayed Dungeness crab season opener, and added that this has effects on other fisheries; if a fisherman needed ice, they would either have to use whatever was still in the machine or obtain it elsewhere, like from a buyer or driving to San Francisco, which creates other challenges.
- One participant stated the local pier is not wide enough to accommodate the size of boats that commercial fishermen operate.
- Several participants indicated that fuel is easily obtainable for Princeton - Half Moon Bay commercial fishermen.

Participant Quotes

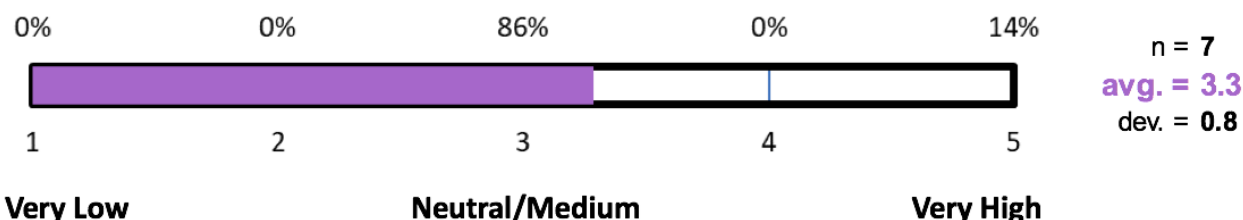
"The infrastructure [is] a little dated. [. . .] They're building boats wider than our pier, [which] could use an update. It's a lot of bigger boat operations [here], and we're still kind of stuck in a small footprint. We have fuel. We have ice, sometimes."

"We're pretty lucky. We get our fuel. Our ice machine breaks down sometimes [and] you get to be grumpy, but as a rule of thumb, it works. That's pretty much my experience."

"Nobody can really actually fish out of [Santa Cruz] in any sort of volume capacity [due to their ice situation]. In our port you could, but fresh in my mind is that I heard that [our] ice machine is out of commission and is not going to have any more ice for six to eight weeks. So if you're somebody that can truck ice in or get it from growers or you're getting it from a producer or something like that, then it may make things a little easier. But in our port, if you wanted to fish right now, you are working off of the last 20 tons that's in the hopper and there are no plans to fix it [soon]. And when I asked the guy at the fuel dock why they would do that, he said because nobody's really going to be fishing anyways. And I thought, he is right in that most people would be crabbing right now, but we can't do that. And so that infrastructure, should somebody want to go fishing, they would have to either get the last of that ice or have a buyer that has it for

them. So that's the big concern right now. And it's happened before. [. . .] Right now, I could go make a black cod trip, but I have to drive to San Francisco to get ice and come all the way back and pick up an observer and take them out fishing and all that. It just seems like an unnecessary piece of the puzzle.”

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port’s fishing operations?*



Discussion Summary Because markets remained available for the main fisheries in Princeton - Half Moon Bay during COVID-19, participants indicated the pandemic did not have a large effect on their port’s fishing operations. Several participants discussed potential future impacts from COVID-19, particularly for the Dungeness crab fishery.

- Several participants reported COVID-19 did not greatly affect fishermen’s ability to sell their catch to most markets, including wholesale. One participant believed fishermen doing direct-to-consumer sales experienced greater negative impacts.
- One participant shared how they were eventually able to sell their product, following a halt in sales during the early months of the pandemic. They anticipated some difficulty selling Dungeness crab to the public while social distancing is in effect, since crowds usually gather to purchase Dungeness crab.
- Another participant believed COVID-19 might affect the market for Dungeness crab if the fishery continued to be delayed past the holiday season, at which point demand might drop.
- One participant explained that COVID-19 hit when Dungeness crab prices were already lower than expected in early 2020. They said COVID-19 caused the price to drop even further, and fishermen did not have enough volume to compensate for the loss of revenue. They believed they were fortunate to be able to sell their Dungeness crab at all. They added that the few fishermen who decided to keep fishing until the 2019-2020 Dungeness crab season finished experienced a similar situation.

Participant Quotes

“To be honest, the COVID dice fell pretty well. We were stopped at the [beginning of the Dungeness crab season], but even running back and forth with the fish and stuff like that, I put ‘Neutral’ on that because, in all honesty, it didn't affect me that much. I still got rid of the stuff, and that's just the nature of the beast. And it wasn't for that long when the catches weren't that high. So I probably am looking ahead to - with crab - big lines of people with COVID. There could be problems with people the way they come for crabs and these lines, that could be a problem, but generally [we're] all sort of good on that.”

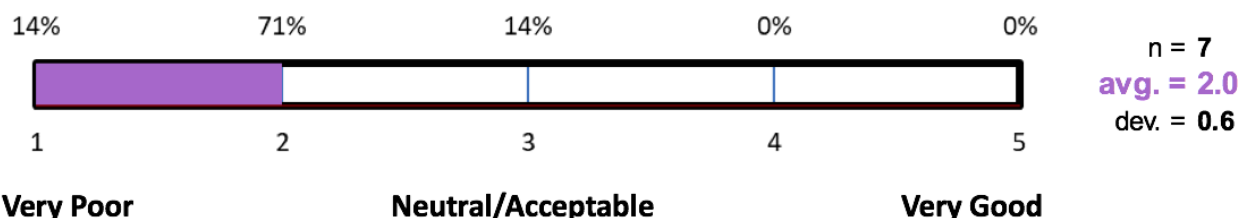
“I can't speak for anybody else, but it [COVID-19] didn't seem to have a huge impact on my markets this year. But I think it still remains to be seen - it could [affect] crab [markets], depending on when we go, because if we miss the holiday season, the crab might be worthless because I don't know if people will be eating as much as they normally would. So I think the

jury's out on that. But I feel like the markets have been there for the main species that come into our port this year.”

“One other thing did ring out in my mind because I do fish crab to the end [of the season] - some guys do, some guys don't. But because we started late for the whale reasons last year, our price would usually be a little higher [at the] end of February and March, and it was not. It kind of lingered around \$4.00 per pound, \$4.25 per pound when normally we would be seeing a little bit more than that on the low volume. So that was kind of a bummer, but that wasn't COVID-related. But when COVID hit, it went from \$4.25 per pound for me to \$3.00 per pound, and that was the difference between being able to make the money or not. So when COVID hit, I was told by my buyer that I was lucky that I could even sell him the crab. And I believe him when he said that, and the price went to \$3.00 per pound. So we basically reverted back to the opening day price but without the volume. [. . .] There was, I believe, only two or three other boats besides me in the harbor fishing all the way to the end - maybe a handful that experienced that.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Participants identified several factors that have contributed to poor recruitment and retention of captains and crew in the fishing industry, including both costs and uncertainties related to fisheries management.

- Several participants cited the significant financial investments required to enter the industry (i.e., for permits and boats). They said these costs make it unattainable for most people to enter the commercial fishing industry, particularly when there is so much uncertainty around fisheries management.
- Participants explained there is currently not enough work available to recruit and retain new crew members and pay them a living wage, primarily due to season closures. As a result, they said the labor pool is shrinking, and a limited number of crew are able and willing to work under these uncertain conditions.
 - One participant highlighted how this uncertainty discourages quality crew members from entering and, eventually, buying into the fishery industry themselves, which they said makes it difficult for fishermen to recruit new crew members. One participant recounted how they advertised online in an effort to find crew.
 - Several participants related fishermen's inability to recruit crew members to the high cost of living in the Bay Area, which is not affordable on deckhands' income. They added that crew members used to sleep in vehicles parked in public parking lots and use public

restrooms as a way to save money on housing, but due to recent county restrictions, this alternative living situation is longer an option.

Participant Quotes

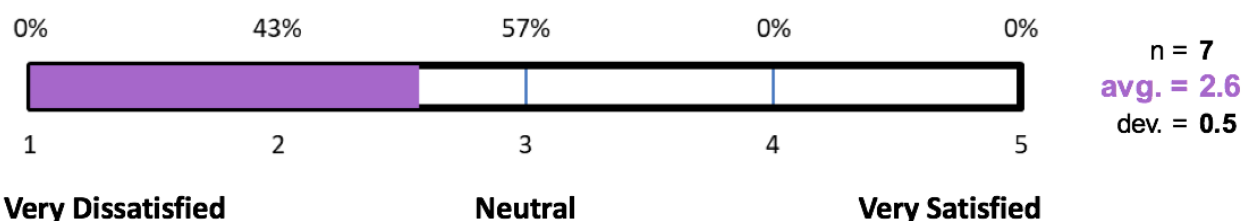
"It's [the fishing industry] lacking the overall profitability that it used to have, in my opinion. There's nobody coming up trying to work this hard and spend all this money to be in this fishery with this much uncertainty, especially with the crab and the inconsistencies of salmon."

"Finding deckhands these days - good deckhands that want to commit their lives to the industry and stick around and work their way up through the ranks and everything - it's a challenge [. . .] and it's frustrating for owners who want good-quality guys. I've posted jobs on Craigslist to find deckhands because you look around and they're just not there. And again, that could go back to just the whole burden of the cost of living around here. Guys just can't afford to do it. So it definitely feels like there's less people coming in for many reasons [including] the challenges in the industry."

"With crab now, I can't go pulling people from - say - Washington, get a guy down and they're going to sit there twiddling their thumbs. I'll wait two weeks for another [whale monitoring] flyover... oh, didn't work. Wait another two weeks... can't do that. And I did have an RV I used to pull into the car park there with a camp, and that can't happen anymore. So what do they do? It's an expensive place to be around, and the pool is getting smaller."

"Deckhands used to be able to come into town and [. . .] sleep in their cars, sleep in RVs and have a lower cost of living while they're awaiting the season. All those things have gone away right now. Not only can you not have the RV in the upper lot, but they are putting restrictions on the bathroom keys for deckhands in our port and they won't let you sleep in the car, they give you a ticket for \$100, even if you own the van and you're there to work. So how does a guy hang out? I got a smaller steel boat. If he lays in the bunk, he can't get service or look at his phone or do anything but live in a hole with no lights. So it makes it difficult for guys to want to stick around or or even give it a shot."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Participants indicated that they love fishing itself, but the California regulatory context makes it difficult and less satisfying to be a commercial fisherman now compared to the past.

- Several participants believed they were destined to become fishermen but said their jobs are harder than they used to be.

- One participant stated it is difficult for fishermen to support their crew and invest in their boats, given uncertainties around fishing seasons.
- Another participant believed fishermen must dedicate lots of time to engagement in policy processes in order to maintain commercial fishing opportunities long-term.
- One participant stated their dissatisfaction stems from the business tasks that are required of fishermen now. They estimated they spend more time attending to administrative tasks than fishing or working on their boat.
- Another participant attributed their dissatisfaction to current (i.e., marine life entanglement issues) and potential future access restrictions (i.e., from California's 30x30 initiative).

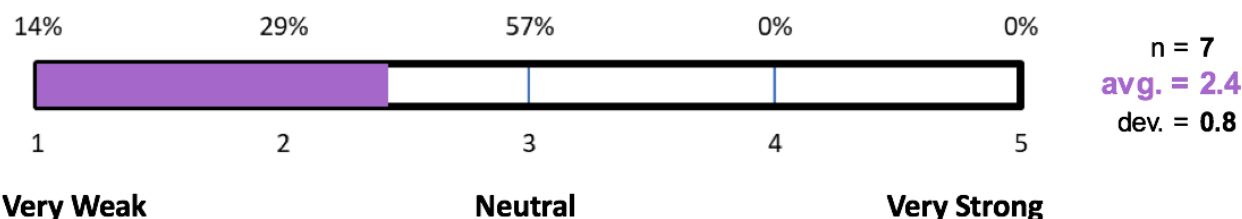
Participant Quotes

"I love fishing - don't get me wrong, that's why I do it, because I still love it. But [all] these other things are what frustrate me because I know what I remember, and it doesn't look anything like it [did] anymore."

"I hate to say this after all these years, [but] I was considering doing 'Dissatisfied.' And then I was looking at the stress level and all those things... I look at the industry, the limited entry trawl industry, and just dealing with the levels of compliance that we have to deal with are so hideous. Every 'i' you have to dot and 't' you have to cross... all the things that you have to do to be able to go fishing and be compliant dominates your life. I'm sitting at my desk right now and I can tell you I probably spend more hours sitting at my desk than I do out fishing now or working on my boat and keeping it safe. And that drives me crazy, absolutely crazy. I can't spend my time on my boat keeping it safe for me and my crew because I have to sit at my desk and answer all these emails and make sure every single thing is covered before I go fishing. And I hate that with every fiber of my soul, coming from a time when I could just go fishing - throw the lines and go, and it drives me nuts."

"I'm dissatisfied because [of] the very fact we're doing this now [participating in the focus group] and [the] 30x30 [initiative] and [marine life entanglement issues] [. . .] I'm thinking there's a storm coming and it's a big one and the wave's coming from the land on us."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants reported the strength of relationships between Princeton - Half Moon Bay commercial fishermen are between very weak and neutral.

- One participant said fishermen tend to have independent personalities, and generally keep to themselves. Another participant said that when fishermen do engage with each other, they tend to disagree on the issues they are discussing.

- One participant compared fishing community dynamics in Princeton - Half Moon Bay to those in Eureka. They believed Eureka fishermen communicate with each other better and are more organized than other ports in California.

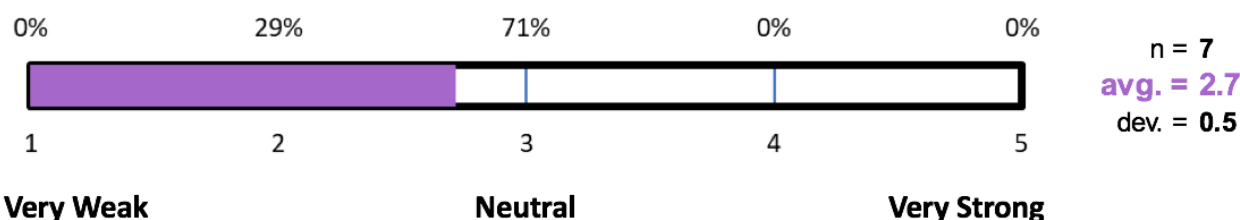
Participant Quotes

"The silence probably covers it because we're fishermen, we do our own thing and we talk to each other... that's life, pretty much it."

"I feel overall, our port's pretty fractured as fishermen. A lot of times issues come up, there's a lot of disagreement and different opinions between the fishermen and it seems we have kind of been butting heads."

"I would agree with the fractured comment, not that there's any real remedy to fix it. A lot of it does have to do with the fact that we are very independent operators and we are of a very independent way of thinking. [. . .] I did notice in Eureka a couple of years ago, I was very impressed with the way that they conducted their [fishing association] meetings. And [name redacted] was extremely professional and fielding negative commentary, and they had a much different process and approach. [. . .] I wish that [some of the other ports] emulated the same kind of prioritized agenda [as Eureka's fishing association leadership], and they rolled through it quickly. It did seem like even when somebody had a biting comment, it was dealt with appropriately and professionally."

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Very Weak

Neutral

Very Strong

Discussion Summary Several participants reported their port's relationship with external groups is somewhat weak due to low levels of engagement by local commercial fishermen in fishing-related policy processes, in addition to a lack of support for the fishing industry from external groups.

- One participant believed their port's inability to effectively engage in conversations with external groups is due to the lack of unity among local commercial fishermen (as discussed in the **Discussion Summary** following question 10. *Social Relationships - Internal* on page 12). Another participant indicated fishermen can be more involved in policy processes affecting the local fishing fleet.
- One participant believed management decisions are influenced by groups like environmental NGOs that often work against the interests of the fishing community, especially with regard to the topic of marine life entanglements in Dungeness crab gear.

Participant Quotes

"Getting along with the other groups is more difficult when you're coming in with different avenues of attack."

"It's not like we're strong on representation, [those] of us sitting there in the harbor [in] Half Moon Bay. We're not pushing strong on that front."

"Management worries us, but I also feel a lot has to do with the amount of people that are trying to sway management into doing other things, especially with this crab issue [marine life entanglements in Dungeness crab gear]."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants reiterated several points discussed earlier in the conversation, including the poor publicity fishermen receive in relation to issues with marine life entanglements in Dungeness crab gear, which they believe damages public perceptions of the fishing industry.

- Participants stated that although the ocean is healthy from their informed perspective, the media often portrays fishermen as destroying the marine environment. They believed this misinformation is spread by groups like environmental NGOs that work against fishing interests and is a catalyst for management decisions that restrict fishing access.
- One participant believed the fractured-nature of the fishing fleet makes it easier for external groups to undermine the fishing industry because fishermen cannot respond with a unified voice, leading to a 'divide and conquer' situation which they fear will lead to the industry's demise.

Participant Quotes

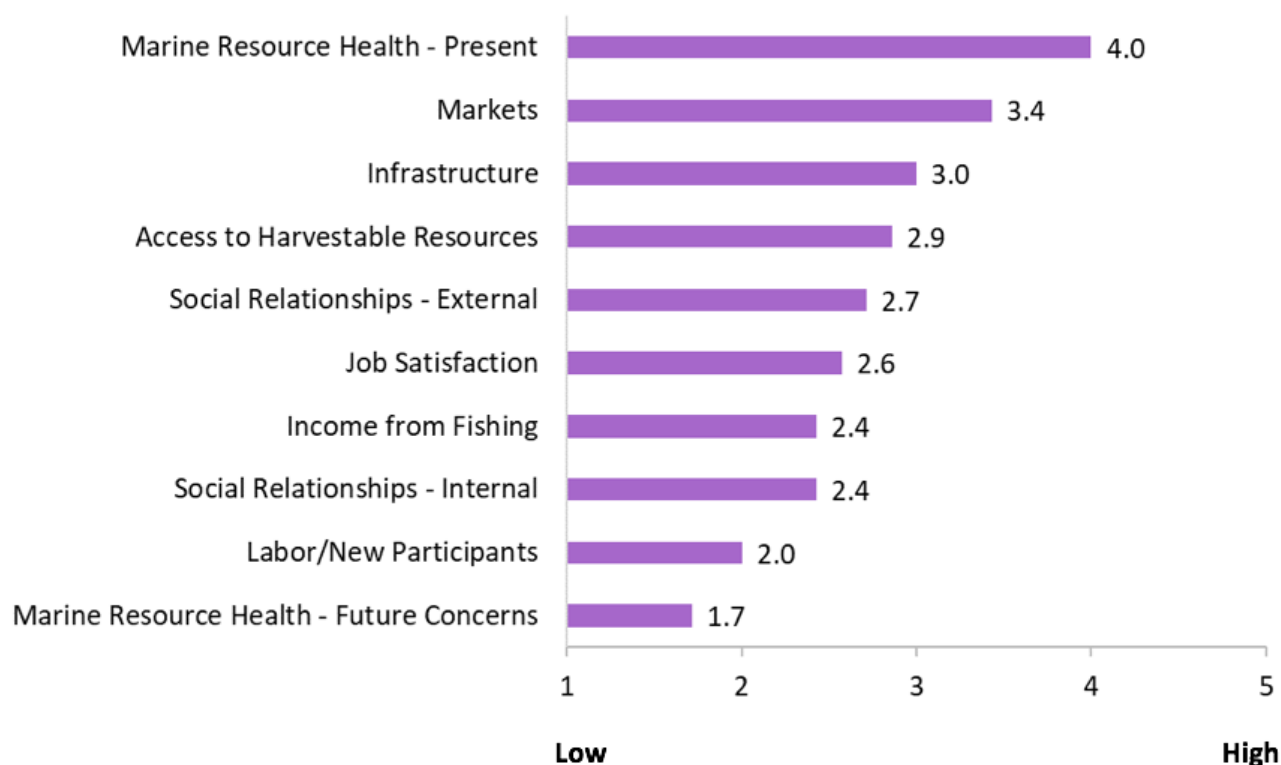
"Overall, we feel the ocean is very healthy, the fisheries are very sustainable, and getting cut down by management is our biggest fear. We need support. We supply the seafood for the country, the world, and we just could use any support possible."

"In our eyes, the NGOs have just taken over the newspapers and are using false information and making us out to be criminals, basically."

"Tell them there's heaps of whales out there, the ocean's actually healthy, it's not doom and gloom. You come back to the cities here and it's all doom and gloom and [people are saying] we [commercial fishermen] rake in everything, and the world's dying, armageddon's here."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

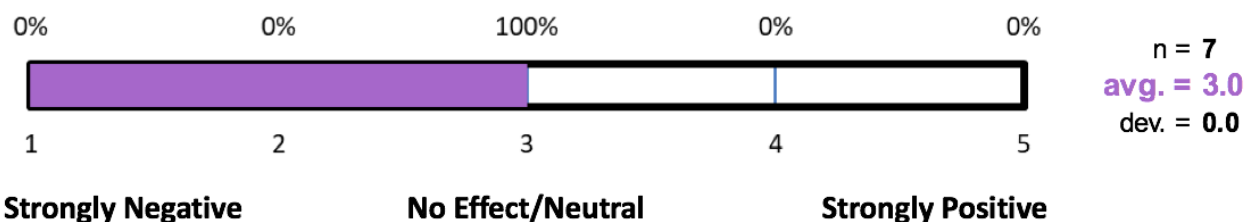
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary All participants rated the effect of MPAs on marine resource health as 'No Effect/Neutral.' Some participants believed MPAs have not had an effect on marine resource health, while others said they did not have enough information to determine effects from MPAs on marine resource health.

- Several participants reported that because they cannot fish in the MPAs, they do not know about potential effects on marine resources in the closures.

- One participant was interested in learning more about MPA effects on marine resources.
- Another participant suspected the MPAs positively affect marine resource health, but could not definitively know if this is true.
- Several participants were concerned that because they responded 'No Effect/Neutral' to this question, fisheries managers would choose to increase the size of MPAs in an effort to increase the chances they would have a positive effect.
- Several participants believed there has not been spillover of species such as groundfish, salmon, Dungeness crab, and anchovies into areas accessible to fishing.
- One participant stated the ocean outside the MPAs is healthy but did not believe this is related to MPAs.
- One participant believed groundfish populations have improved in areas that are not MPAs.
- Several participants did not believe that spatial closures like MPAs improve the health of the species they are intended to protect, like groundfish.

Participant Quotes

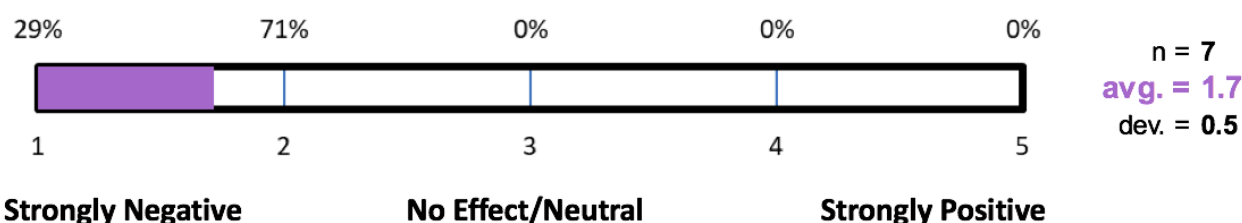
"In most of my fisheries, I haven't noticed any difference [. . .] I'm a rock cod fisherman that fishes there close to the MPA, so I could tell [if there was] a difference. I don't think very many of us would have the actual knowledge [to answer this question]. I guess it doesn't seem to affect the resources in our area. [. . .] I mean, it would be interesting to see if they're working, if there is any effect."

"I haven't fished in the MPA, so I don't know what the MPA is like. But the ocean's healthy, and I don't think it's relevant to the MPA. The MPA is just a place we run over and don't really know it. But the ocean itself - the anchovies have got nothing to do with the MPA. The whales have got nothing to do with the MPA, and salmon and crab got nothing to do with the MPA... and there's plenty around. So I don't really see what relevance the MPA has got to do with the whole deal."

"I fished as a deckhand for crab in the MPA before it was an MPA, [. . .] and I can't really say that I see too much of an effect when it comes to crab [. . .] I've also heard a lot of groundfish stocks have been rebuilt outside of the MPA as well, without the same protection."

"I would agree with what [name redacted] said about a huge swath of area being closed is the wrong way to look at it, to protect one species."

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* on page 17 which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall *What other types of effects or impacts have fishermen from your port experienced from MPA implementation?*

Discussion Summary Participants indicated that MPA impacts on fishermen range from negative to strongly negative. These impacts include restrictions on access to profitable fishing grounds, in addition to increased crowding, compaction, and competition outside the MPAs.

- Participants reported the MPAs have resulted in a significant loss of access to their historic fishing grounds, which has decreased income for several fisheries that operate out of the port, including salmon, crab, and squid. Several participants compared impacts from MPAs to similar impacts from closures such as Rockfish Conservation Areas (RCAs).
 - Several participants believed the MPAs were created to protect groundfish and that the loss of fishing opportunities for salmon, crab, and squid is an unintended consequence of the MPAs. They desire changes to MPA rules and regulations to allow for salmon, crab, and squid fishing inside MPAs.
- One participant described the negative impacts from MPAs on nearshore fishermen. They explained how nearshore fishermen operate smaller boats that are not capable of long-distance travel (i.e., beyond the MPAs); these fishermen are unable to purchase larger, more expensive boats that would allow them to fish farther, leading to a decrease in local participation in the nearshore fishery as a result of the MPAs.
- One participant identified an increase in crowding, specifically with regard to crab gear, along MPA boundaries. Another participant highlighted how the MPAs have led to greater competition in areas that remain open to fishing.
- One participant believed fishermen's input during the MPA designation process helped to mitigate impacts from the MPAs, which could have had greater negative impacts.

Participant Quotes

"You close an area, you take away opportunity - that's pretty cut and dry. [Name redacted] could have caught salmon on the other side of the line... more income, right? And me personally, [. . .] I've battled an RCA for 20 years and I know how I felt about that overtime and it wasn't good as far as its impact. I mean, you can make the argument it may have helped some of that groundfish recovery, but I don't know. But battling that line day-in and day-out for years is another one of those things, it felt unnecessary at times. I didn't like it."

"I can tell you at least two dozen times when the fish [salmon] were on the other side of a line that was made to protect groundfish species and a highly migratory species is running in an area where everybody is forced to turn around. And it's an insane line when it's like that, everybody fishes all the way to the line. [. . .] So in some ways, it may [or may not] be good for groundfish, to help preserve the stocks that are so close to the harbor in the good habitat. But I think that there's a lot of unintended consequences as a result."

"Lot of lost opportunity on the MPAs. [. . .] You can't fish in the State Marine Reserve for rock crab. And I can assure you there are a lot of rock crab on the other side of that line that I'm not allowed to catch. And it's the same [for name redacted who] can't wrap the squid in there, and it's all to protect a fish that's below or to the side of those things. And really, there isn't a lot of

bycatch in those fisheries, like with mine in the trap: it can be thrown back live, it's typically not dead and with [name redacted], he's just not wrapping the bottom quite like that. So unintended consequences of overregulation."

"There was a small boat hook-and-line rockfish fleet [before] nearshore fishing and deeper nearshore fishing permits were even awarded, when it was still open access and guys could go out and catch a somewhat significant amount of live fish and sell it and make somewhat of a living. It pretty much eliminated all those really close guys, that permitting process. And unfortunately, where we're located, just outside the harbor, there's a breakwater. So it [the MPAs] pushes the smaller boats a little farther, which could be potentially dangerous. And we've seen boats have problems the farther that they go. But unfortunately, with the prices of things, a guy [can't] go and spend the money to get a bigger boat and go out and fish somewhere else. It means that there were limitations, and those that could adjust did so, and there aren't that many of us left."

"My father had input on those [MPA boundary] lines, so if those lines were a little bit different, it could be catastrophic. I catch most of my year's income in four or five different spots. If those spots are closed... that would be it. I answered 'Negative' because I haven't seen any real positive effects. [. . .] If there's fish in there, you can't catch them - the day's shot, so without any of that big [spillover] or any of those other things, without seeing that, I can't say there's any positive effect."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants reported difficulty identifying which MPAs have had the most impact because they all affect local fishermen. One participant said that any MPA will affect fishing activity. Another participant added that the current MPAs are tolerable but any more would be detrimental for fishermen. Several participants highlighted that most MPA impacts have been on the salmon and Dungeness crab fisheries. One participant believed the ocean is resilient and fishermen should be allowed to fish in the MPAs because the resources will continue to cycle, regardless of how often and where they are targeted.

- *Stewarts Point State Marine Reserve (SMR), Drakes Bay MPAs (including Point Reyes SMR), Farallon Islands MPAs, Montara SMR, and Año Nuevo SMR:* Participants reported there are often salmon in these MPAs but fishermen are not able to harvest these salmon; fishermen are forced to catch whatever they can along the MPA boundaries.
 - One participant stated these are only several of the MPAs between Horse Mountain and Princeton - Half Moon Bay that fishermen must circumvent when they are following salmon along the coast.
 - Another participant questioned why salmon fishing is not allowed in these MPAs, since they believed the MPAs are intended to protect groundfish.
- *Año Nuevo SMR:* Several participants reported this MPA restricts areas with high Dungeness crab abundance. One participant said there are lots of halibut in this MPA, based on their

experience fishing here before MPA implementation. Another participant reported hearing that groundfish stocks near this MPA are recovering, but believed these estimates might be inaccurate.

Participant Quotes

"I would say they're all very impactful."

"It'd be tough to say... fish are fish, they got tails, so it's anywhere on the whole coast would be an affecting spot."

"If you had to have MPAs, these ones aren't all that bad. Any more than that, I would shoot myself."

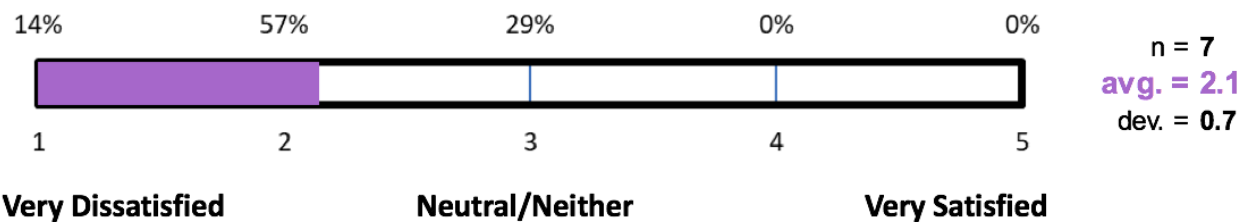
"Sometimes I feel like no matter what we do, the ocean is just going to do what it wants to do. And I feel like if we targeted cowcod every day for the rest of our lives, cowcod would just cycle like everything else."

"When it comes to salmon, I've been affected by every single closure from the 05' line at Horse Mountain and every single MPA all the way down at one time or another. [During a] specific year, that was the northernmost point we could fish [Horse Mountain]. It was like every time the fish would move, you're following them and then all of a sudden, shit, you got to either choose to scratch on this side or jump to the other side. And the fish are kind of in the middle and you can't do anything about it. Unfortunately, they're there every so often on the coast, the whole way down for the whole migration all the way to home. So we've all been affected by it one time or the other. But I would say the four that are out in front of Farallones, Montara, the Drakes - Jesus, the Drakes - and Año Nuevo, big time."

"I'm looking down at Año Nuevo [SMR] and go 'geez, there's times I wanted to put crab gear in there,' which I haven't been allowed to. Really, they're all moot points [. . .] my brain just goes to crab and salmon. [. . .] All of them [stand out to me]."

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants' perceptions of MPA management ranged from very dissatisfied to neutral. They said managers' communication of information and decisions regarding MPA management is poor, particularly with regard to how MPAs will be considered in the 30x30 initiative.

- One participant stated they were neither satisfied or dissatisfied with MPA management because, to them, the MPAs are simply areas where they cannot fish.
- Several participants believed MPAs were used more as political tools than as fisheries management tools and, as a result, the MPAs are hurting rather than helping the fisheries. Several participants worried that the 30x30 initiative would follow a similar trajectory to the Marine Life Protection Act Initiative, in which informed, science-based decision-making will be overridden by political interests.
 - Several participants wondered whether the 30x30 initiative will take into account all area closures that already restrict fishing activity, including MPAs, RCAs, and essential fish habitat.

Participant Quotes

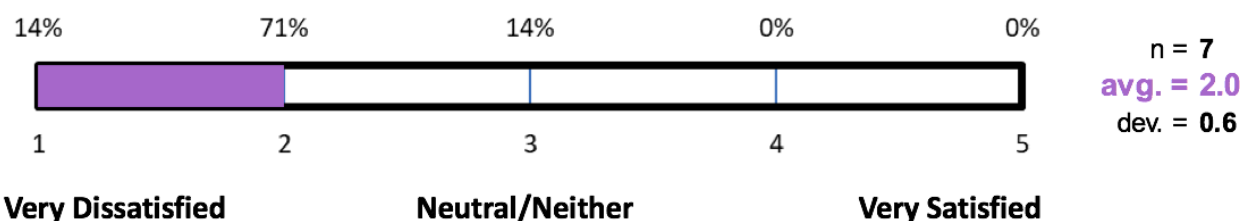
"I know they're there [the MPAs]. I know I can't go in 'em. I stay out of them."

"My overall feeling is these [MPAs] are more of a political tool than a real management procedure, and it just seems more political with detrimental effects, really, than a secure way to protect the fisheries, so everybody's just kind of dissatisfied with them."

"I've no doubt [the California Department of] Fish and Wildlife, with this 30x30 thing coming on, [will] throw out all their management as well... what we're doing with the fisheries, salmon meetings, this and that, they just do a political broadside and check 30 percent and totally screw us. Same with the MPAs: it's political."

"It'd be interesting to know on the 30x30, there was mention that already closed areas would be observed as part of the 30 [percent]. There's quite a few swaths of water out there that [names redacted] can't fish for groundfish, already the RCAs on top of the MPAs - it'd be interesting to see what they're calling a closed area or a conservation area as a part of that 30 percent. And [all the] scientific data and research going into effect - will that be thrown out to achieve a number? Will scientific models be thrown out to achieve a number for some political deal?"

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Several participants were dissatisfied with MPA monitoring. They cited poor communication about MPA monitoring studies and results as the primary reason for their dissatisfaction.

- One participant reported they are unaware of MPA monitoring studies and added they only know of the status of marine resources based on what they catch. They indicated that ecological studies, in general, do not reflect what they are seeing on the water.

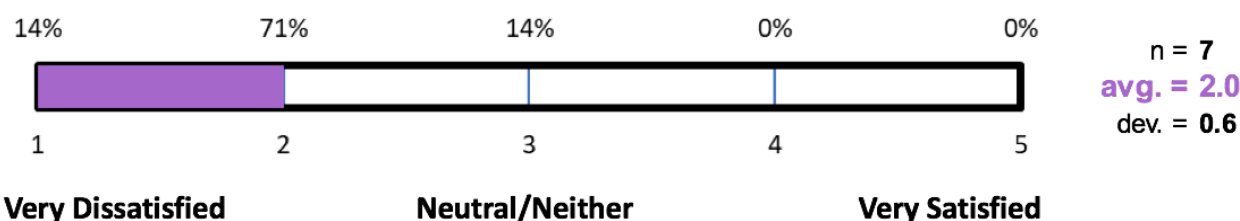
- One participant recalled seeing charter boats assisting with MPA monitoring studies.

Participant Quotes

"I listened to [a] halibut meeting a while ago on a study done and this year there's just halibut everywhere: I'm catching them trolling for salmon all over the place and [. . .] everyone's bringing in halibut. And reports say there's not many around, so I raise my eyebrows at that... I haven't heard studies of the MPAs that say what's happening [. . .] my only thing is I can judge things by what I'm catching with my salmon gear."

"I know I've seen some of the party boats being hired to go do some studies."

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Several participants reported their dissatisfaction with the methods used for MPA enforcement.

- Several participants believed people who illegally fish in the MPAs are often not aware that they are in an MPA.
 - One participant suggested MPA enforcement be done on a case-by-case basis in which first-time offenders are informed of MPA rules and regulations. They recounted an instance when an out-of-town commercial fisherman unknowingly set their gear in an MPA, and rather than informing the fisherman about the MPA, California Department of Fish and Wildlife (CDFW) enforcement officers allowed them to continue setting their gear, providing grounds for a citation, which ultimately put the individual out of business.
 - One participant reported receiving a citation for fishing in the Stewarts Point SMR even though they did not know there was an MPA in that area.
- One participant recalled seeing enforcement in the Montara SMR.

Participant Quotes

"I know they enforce it. They write tickets. So, I mean, those are kind of the realities for us. [. . .] I guess they could say it's your responsibility to know, but there's a lot of clueless people out there that don't have bad intentions and might wind up suffering."

"When it comes to the MPAs, there is enforcement. Like our Montara MPA, they will watch with a telephoto lens and they can triangulate your position directly from land using the instrumentation that they have for enforcement. And I think that there's people that know that they're in an MPA and they fish there, but I think that for every person that is actually doing that, I think that there's quite a few people that don't know that they're doing anything wrong. You got little Jimmy who has Uncle Henry take him fishing: they go buy the licenses, the

intention is good, nobody's trying to pillage and hammer everything. But they just didn't realize when they launched at the harbor [. . .] the big map over here that shows the closed areas... they just wanted to go fishing. I think there's a fair amount of that kind of scenario going on, and I don't think that enforcement really gives them the benefit of the doubt. I believe that they use it as an opportunity to enforce that to the fullest. And whether it's sport or commercial, you're held to an extremely high standard with knowing where the line is and where to stay away from."

"I just think that enforcement can look at a play-by-play thing: they see some guys that don't look like they know what they're talking about, I think that's a time for education, the time for communicating and seeing what their intention was instead of just saying 'hey, it's a taxpayer that has money to pay for this ticket.' When you go to court, you wind up paying a very significant fine. It's not like running a red light ticket - they actually threaten you with jail, things like that. [. . .] Having a little push and shove when it comes to enforcement on things like that would be nice. More information for the public and more benefit of the doubt."

"A few years back, there was a guy that was from another port and he laid a bunch of gear on opening day right into the MPA and [CDFW enforcement officers] saw him doing it. And instead of informing him [and saying] 'you're an out of townner and you don't know what you're talking about,' they allowed him to lay the gear so that they could give him a citation. And I found that kind of alarming... he was not from the area, he was a brand new captain [. . .] and he made a bad decision, didn't know what he was doing in a new port, and I don't think he had bad intentions, but he's out of business now."

19. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants indicated MPAs are just one of the many restrictions and challenges that fishermen are facing, all of which should be considered when decisions are made that affect the commercial fishing industry.

- One participant identified several compounding factors, in addition to MPAs, that continue to diminish fishing access, including potential loss of fishing opportunity through the 30x30 initiative, wind energy development, and issues with marine life entanglement in Dungeness crab gear.
- One participant reiterated the question regarding whether existing area closures, such as MPAs, will be considered in the accounting for the 30x30 initiative. They recommended the ocean as a whole be the basis from which 30 percent is protected rather than restricting 30 percent of fishing grounds. Another participant believed there should be demonstrable evidence that the MPAs are helping to improve marine resource health before any additional areas are closed to fishing.

Participant Quotes

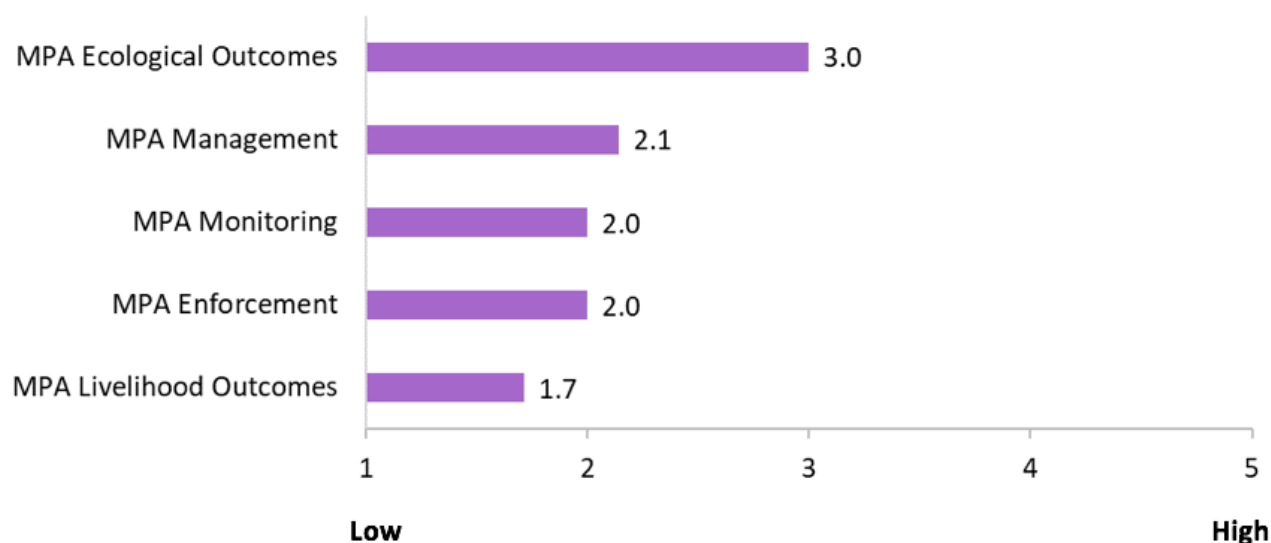
"Let's stick a friggin' windmill in the middle of the bloody ocean [. . .] Then we got 30 percent [the 30x30 initiative] coming up on us. [. . .] Then we've got a breeding population of whales that's exploding out there [. . .] We got regulations, regulations, regulations, and there's a storm

of them coming. So we're having a tiny little meeting [this focus group] on MPAs, which I have no doubt is going to blow into this 30x30 thing [. . .] [Also,] upcoming dues for having a week in the [crab] season, but they're not dropping the price for us... there's no sympathy there. Well, as fishermen, there's one thing we know about nature: nature's got no sympathy, and that's the way it's working here."

"It'd be awful fair if they just use the whole ocean as the 30 percent [for the 30x30 initiative], but when they take 30 percent of a small piece of the [fishing] grounds... it's not 30 percent. If a guy operates in a smaller area and they take 30 percent of that, it [. . .] isn't about the fish... it's about politics."

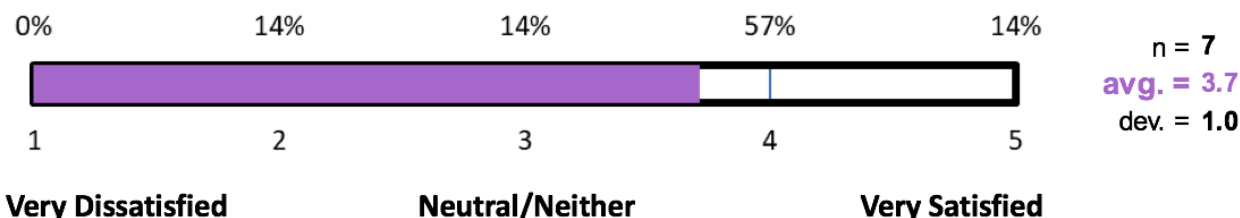
"I'd just like them to know that we need to see some positive effects of these MPAs before they consider any more closures - that they're actually doing any good or they're worth it. With the 30x30 [initiative], look at the crab fishery: we're already shut down more than 30 percent. So we've got to be very cautious of our future... there's going to be some more Zoom calls and battles over that one coming up."

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



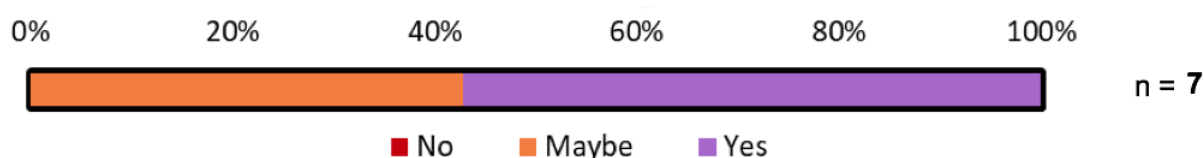
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future *Would you be open to participating in a virtual focus group or meeting like this in the future?*

(Note: For the following figure, the length of the orange bar indicates the percent of participants who responded 'Maybe' to question 20b. The purple bar indicates the remaining percent of participants who responded 'Yes.' If participants responded 'No,' a red bar would appear.)



20c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Several participants were satisfied with the focus group experience, but some were worried that the information collected during the focus group might be misinterpreted and used against the commercial fishing industry.

- Several participants believed they were able to provide their honest perspectives and felt the facilitators remained neutral, transparent, and professional throughout the conversation.
- Several participants expressed their dissatisfaction with the MPA process overall, including the focus group. They were concerned that the perspectives they shared during the focus group will be passed to decision-makers in the form of a statistic with no context or nuance.
 - One participant thought fishermen need a spokesperson to represent them in conversations with people and groups who are disconnected from nature yet are responsible for marine policy and decision-making.
 - One participant said they will continue to participate in these types of conversations, especially with the upcoming 30x30 initiative, to ensure fishermen's voices are heard.
- One participant stated although they were not too familiar with Zoom, the virtual focus group went smoothly for them.

Participant Quotes

"I thought the meeting was very well run and I thought I was able to speak any time I wanted, to get my say. The talk - and everything about that - was good. Everybody's concerned about the results: they're going to take the information depending [on] who wants it and make it look any way they want. I'm just hoping that maybe they'll take some good parts out of it that may help us."

"It's hard as a fisherman not to be distrustful of the process. It just feels like all we do now is suffer. And as fishermen, I think we all feel like the ocean's generally healthy. And just every day, there's a new heavy-handed thing coming down on us year after year after year, and it just gets to be less and less satisfying to deal with."

“What have we done here? Will my voice, this voice I'm saying now, go in front of Bonham? No, he'll get those multi-choice friggin' answers [ratings] that we've given and it'll be abused and turned into a statistic and we will be finally rooted.”

“We need a publicist, a good one, because, [yes,] we need unity and all that stuff, but that's a hard thing with a pile of independent people. We're going to be the cowboys without a horse just walking around in a paddock aimlessly. So I don't know what to do about that one because we're up against some big politics here [with] this 30x30 [initiative]... the world's running away in the cities because I've seen it: I come off the ocean [and] then I drive into the city and I see people all sitting in the park on a Sunday on their blankets and I'm going: ‘they’re the people that are making up the rules and think they know about nature.’ They don't know, and that's their form of nature: sitting in the friggin' park on a Sunday. So that's what we're up against.”

“As far as the virtual focus group went, it's gone pretty smooth. I mean, I don't really know what I'm doing with Zoom, but I'm trying to figure it out and making it happen. I think everybody's making it happen. So I'm pretty happy with the virtual focus group itself and that everybody was able to say their piece and give their opinion and their take on it. And I would probably participate again if I felt that it [. . .] had a level of neutrality, kind of like it does now. If the line of questioning was different, maybe not, but I thought you [the Project Team] did a good job.”

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network ***Members of Santa Cruz's Commercial Fishing Community***

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Santa Cruz

Date: Tuesday, December 8, 2020

Participants: Kevin Butler, John Koeppen, Khevin Mellengers, Tim Obert, David Toriumi

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

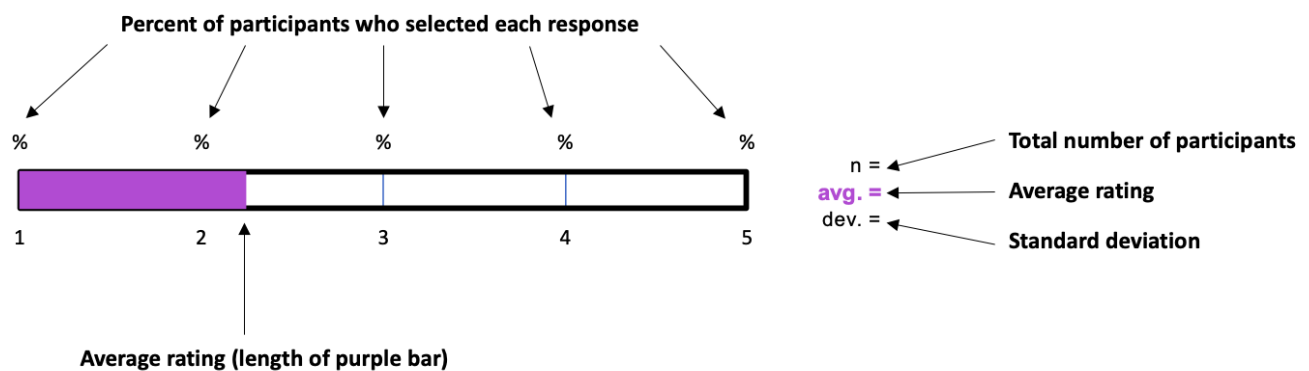
Overview

On December 8, 2020, five commercial fishermen operating out of Santa Cruz participated in the fourteenth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 16 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 17 and 26 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

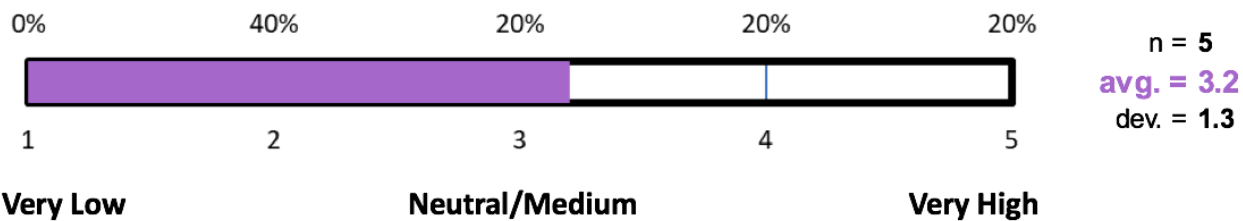
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: Central Coast](#)
 - [Summary of Results from Baseline Monitoring of Marine Protected Areas 2007–2012, Central Coast](#)
- [Marine Protected Area Monitoring Program, 2019–2021](#)

Our Project Team would like to express our appreciation to the five Santa Cruz fishermen—Kevin Butler, John Koeppen, Khevin Mellengers, Tim Obert, and David Toriumi—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants expressed a wide range of perspectives when considering marine resource health. Several participants highlighted that specific species are thriving, while other participants shared broader concerns about the current health of California fisheries, habitat, and water quality.

- Several participants shared that certain stocks—specifically sablefish, halibut, rockfish, and salmon—are rebuilt due to management restrictions such as Rockfish Conservation Areas (RCAs) and MPAs. One participant scored the current health and sustainability of marine resources as ‘Very High’ when considering fish size, weight, and abundance.
 - Several participants highlighted the lack of opportunity to access abundant resources as a result of restrictions. One participant suggested that because stocks are healthy, fishermen should be provided the opportunity to harvest these resources, including in areas currently closed to fishing.
- Several participants expressed concerns about the current health of marine resources. One participant’s perspective that California fisheries are unsustainable is informed by their involvement with the Pacific Fisheries Management Council.
 - One participant reflected they were uncertain of water quality and habitat health. Another participant conveyed the complexities of inland water use and the impacts on salmon populations.

Participant Quotes

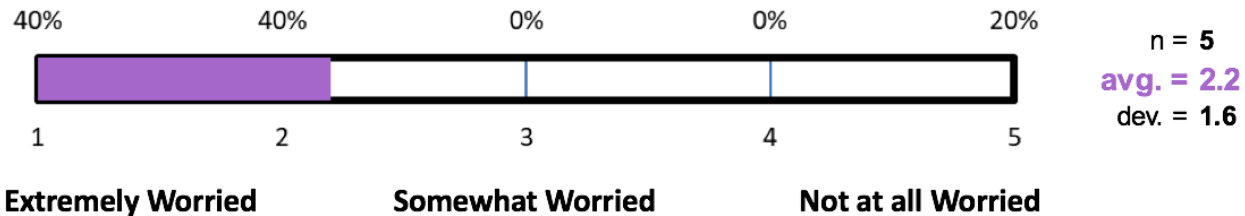
“So I said very high abundance, diversity, size, weight [...] The only one I was kind of iffy on was maybe water quality and habitat. [...] But we feel like the stocks are rebuilt and that we should have a chance to get them. The stocks that we are able to get right now, the halibut, the cod, the salmon, there's a lot of them around. We're having good seasons.”

“Our resources have rebounded. Salmon is another thing that's so complicated with water and where they spawn. We don't have any control over that, it seems.”

“I look at it overall and I consider I'm primarily a salmon fisherman and I also fish open access rockfish. You know, being involved in the [Pacific Fisheries Management Council] process, you talk with people on all the different fisheries and we really are in bad shape. [...] Quality overall

is not low [...] when they look at a small sector of the fishery. But if you look at that overall, we're really in trouble."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Several participants expressed concerns about future access to resources, while others identified changing ocean conditions as their most significant concern regarding the future health and sustainability of local marine resources.

- Several participants expressed worries about the impacts of changing ocean conditions on the future health of fisheries.
- Several participants shared they were not worried about the future, based on the current status of stocks, which they perceive as healthy. However, they highlighted the uncertainty around future management decisions as a concern.
 - Several participants expressed worries that future restrictions will limit access to marine resources, specifically the Dungeness crab, salmon, and hook-and-line fisheries.

Participant Quotes

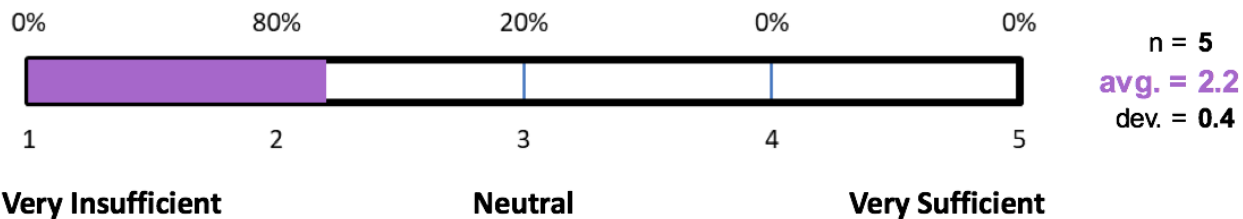
"I do have some concerns for the future that we may reach some type of tipping point when it comes to ocean acidification and stuff like that. I think we've all noticed that the world has been a changing place. I don't know how that's going to relate back over to the species that we rely on. And I think the one thing about California is that we're kind of cutting edge. We're very scrutinized and we're probably the most sustainable state on any of the seaboards, really, when it comes to what we're allowed to do and whatnot."

"If we look at the future, with global warming, I'm very concerned. [...] And I look at the crab guys this year wondering if they're even going to get to go crab fishing. And looking at salmon, [it has] been restricted for years and will likely be as restricted this year as it was last year. And I look to the future, all I see is more restrictions and more interest groups taking more of our time, whether it be the southern resident killer whale or Center for Biodiversity suing the [California Department of Fish Wildlife] over access to the crab fishery. And so, again, as I look at it in the broadest perspective as I can, and I'm not feeling comfortable with it."

"I'm not worried at all [about the future health of marine resources] because that kind of goes with the healthy stocks we're seeing now. From what we see, it looks good, so I'm not really worried. I'd be more worried about getting to access them."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants shared their dissatisfaction regarding access to marine resources, citing management restrictions as the primary barrier. Several participants made connections between limited access to resources and the decline of artisanal fishing operations.

- One participant shared that access is sufficient for some fisheries, specifically open access fisheries and those fisheries that are executed in close proximity to the port. However, they highlighted the need for increased access for fisheries conducted in deeper waters further offshore in order to meet their full quota potential.
 - One participant suggested that even if additional access to resources is allocated, current area restrictions (i.e., RCAs, MPAs) and financial barriers (i.e., increased travel costs to fish open areas and fill quotas) inhibit the ability to harvest a profitable catch.
- One participant described the high cost of permits, specifically Dungeness crab, as a barrier to entering the commercial fishing industry.
 - One participant suggested the high cost of permits would result in a reduction in permits in Monterey Bay ports. They expressed concerns that without the support and opportunity offered by retiring fishermen willing to sell their permits at a reasonable price, they would not have been able to enter into specific fisheries.
- Several participants described how small boats can't compete with the larger scale operations and competing prices with international markets. They expressed concerns that declining access threatens the long-term viability of the local small boat fleet.
- One participant expressed interest in using available fisheries information, including the data compiled as part of this project via the [California Fisheries Data Explorer](#), to help inform fishermen and decision-makers when considering making increases to access.

Participant Quotes

"Some of the open access [...] guys do great. The halibut guys, they've been doing great and sand dabbing and sea bass and other [resources that are] kind of close to home is what's mainly targeted. But we need to be able to open up the deeper stuff so we can actually go out and fill our quotas so we don't have to go back to construction, or whatever, for the mainstay."

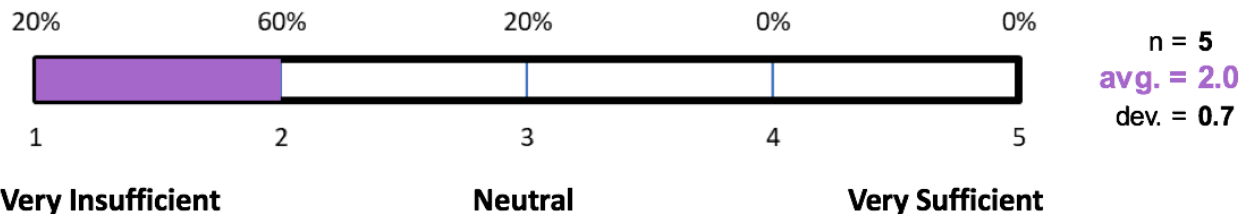
"For me to go get my [deeper nearshore] quota, I got to do literally a 100 mile round trip down to Big Sur and back just to go get what I can. I can literally get five miles out of the port if we were able to go to Portuguese Ledge or Soquel Hole or the reef outside Davenport [which are all now inaccessible due to MPA protections]. It's kind of mind-boggling that they give us all this poundage, but then our environmental footprint has to be so big just to access [it]."

"I really got lucky [the way I got into commercial fishing]. [Name redacted] offered me to run his boat and said 'do you want to take it over?' I told him I had the money and I just ran. And then the same thing with the deeper nearshore. [Name redacted] wanted his permit to go to someone who was really into it, really wanted to fish. So [in the] grand scheme of things, me and name redacted] are lucky. We're both hard workers and that's why we're in the position we were in, but imagine if we didn't have that kind of help from those guys. And that's why you don't see a lot of [younger participants] taking over operations from the older guys that are selling out. Our permits are going to be leaving Monterey Bay."

"The MPAs and the [National Marine Sanctuaries] have all limited our access to resources [...] Without having access to these fisheries, we see a decline in the overall health of the small boat fleet, [which is] especially in jeopardy from my perspective."

"One reason I'm interested in [the California Fisheries Data Explorer tool] is that we're working on efforts to gain broader access to the RCA. Having data on open access fisheries in the past and current would be very helpful in that effort."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants described the increasing difficulty for local fishermen to earn a living from commercial fishing due to the high cost of permits and limited access to resources as a result of management restrictions.

- Several participants believed many local fishermen have additional jobs to supplement their income, particularly those fishermen who want to fish locally in Monterey Bay and live nearby, where the cost of living is high.
 - Several participants expressed concerns that because of management restrictions, it was not possible to make sufficient income fishing locally. Participants shared they need to travel further, which means higher operational costs and more time spent away from their families.
- Several participants highlighted that the uncertainty of some fishing seasons makes it incredibly difficult to rely on a secure income. They suggested this is even more challenging for younger fishermen who made large investments in start-up costs and have not yet established a financial safety net.
 - One participant worked two jobs to cover their expenses during extended delays in the opening of the Dungeness crab fishery due to the elevated risk of marine life entanglements. Another participant said they pay for boat slips in multiple marinas to be able to move their operations and optimize fishing opportunities, which adds a financial strain.

- Several participants highlighted the high costs of permits and the difficulty of purchasing them and paying off debt due to the limited income that commercial fishing provides.
 - One participant said they run another person's boat and are unable to make sufficient income for living expenses and to purchase their own boat or fishing permits. They expressed frustration that younger fishermen have to invest a tremendous amount of capital to enter certain fisheries.
- Several participants shared they are watching for warning signs to leave the industry. One participant had to downsize their operations because their income from fishing could not cover their costs.

Participant Quotes

"We don't have the resources here to stay fishing in our local ports. The worst thing is that you could not make a living in your own backyard. We have to travel to multiple areas in order to access these fish or even have the opportunity to catch it. That's for crabs, salmon, rockfish, everything. If we had an opportunity to catch some fish in these MPAs and maybe increase our quotas, then we could have an opportunity to make a living at home. But for now, guys like myself, we have to go other places."

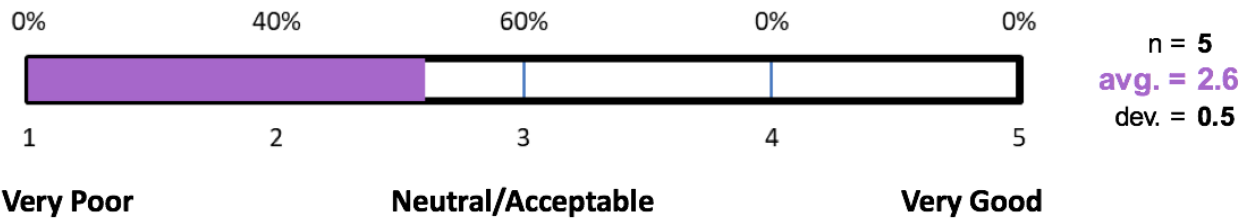
"[In terms of being able to get into the fisheries,] it's almost impossible right now. It's the same as in every port. We can't afford the permits to go fish for live rockfish. You have to buy two permits. That [Dungeness] crab permit nowadays is a couple hundred thousand dollars, if you want anything that can actually make you a living. The guys who had them walked into the [California Department of Fish and Wildlife] office and bought them for nothing. So it's kind of unfair to the younger generation [who] really don't have a chance of getting into [a fishery unless] dad or a grandpa leaves [a permit] to them."

"I know a lot of deckhands that have just got into [commercial fishing], some have just bought boats, especially from Bodega Bay. [...] And they're rethinking their entire career right now. They just bought these boats and now we're not going crabbing [because of] these whales. A lot of these [older] owners may have enough money saved to support them through it, but these deckhands really don't. So for them to see a future in the fishery, it's like an ending point for them. They understand that they have no opportunity."

"I sold my boat recently because I saw what was happening with the [Dungeness] crab season. I chose to sell my boat, which I loved, and purchase a boat that was cheaper. I've been downsizing. [...] For a lot of people, being able to afford to live and fish in California with what's going on is extremely challenging. It creates a lot of fights in the family and stress. You drink a couple of extra beers."

"Fishermen are the most optimistic people in the world. [...] But it gets to the point where you hear fishermen wanting to quit. That sucks, that's just disheartening, that's just a broken soul, that means we have nowhere to go, it's a bummer. It really hurts because everyone's in this because they love it. We're not here to ruin the environment. We're just trying to make a living doing something we love to do and bring that fresh catch to the table, but it is becoming harder and harder."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants shared that markets for Dungeness crab and salmon are fairly stable, while markets for California halibut and rockfish are variable due to gluts in the market and international competition, respectively.

- Several participants expressed frustration that their buyers were not actively working to expand markets to help fishermen sell their catch. A participant suggested buyers were not financially incentivized to expand markets.
 - Several participants expressed concerns with the influx of halibut at certain times of the year, due to it being an open access fishery. They explained the large volume of product leads buyers to offer a low price or to not purchase the fish at all. One participant suggested buyers could move more product if additional markets were established.
- One participant recalled that after RCAs were established, open access fishermen lost markets because of competition with large-scale operations (i.e., draggers) or foreign/import markets. They stated this has affected smaller vessels that rely on selling to buyers at a higher price per pound.
- One participant highlighted the barriers to establishing a direct-to-consumer dockside market in Santa Cruz, including the limited number of commercial fishing boats that are able to provide a reliable amount of product to support demand for direct markets.
 - One participant explained direct marketing efforts are time-intensive and take away from fishing opportunities. One participant described local demand for dockside sales and specified that customers from the San Jose area are likely to purchase salmon or halibut, but not rockfish.

Participant Quotes

"I'm mostly [Dungeness] crab and salmon, and I feel like [those markets are] acceptable. It's not great, but we have an opportunity to sell our catch usually when a price is established for the coast."

"In the past when I used to fish rod and reel halibut, sea bass, there was a lot less people doing it. So I will say that the influx of people actually fishing is also creating an issue for our ports, as far as how much abundance of fish is coming to the dock. [...] But it's a hard road too, it's not as easy as people think to go sell thousands of pounds of small halibut when they're catching them."

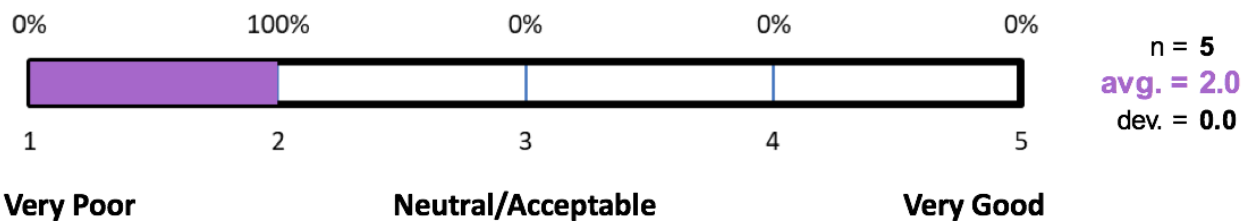
"Over the last 20 years when the RCAs were established, those markets we had with open access went away, the fillet lines went away. The only place you'll find a buyer that can handle any volume is where the draggers are. [...] They're the ones that can bring in 30,000 pounds. But small boat guys like me, we try to catch 500 pounds and sell them at a higher price, but our

buyers can't take that volume of fish because they can't put the labor into processing it at a competitive price [compared] to the draggers or particularly the Canadian imported products."

"We're also battling out-of-town rockfish from Canada. [...] We're told by our buyers that [they] can get it [rockfish] filleted to their door for \$1.75 per pound or whatever it is when usually we get \$3.00 per pound or something. And that's really disheartening to us because we know our product is fresh and local and for them to take time to [process the fish] or whatnot might be the same, but it also gives other people jobs. So we're actually battling other people from out of town [...] just as far as rockfish goes. And I really feel that [rockfish] is the entry-level that a lot of young guys are going to want to go after, it's the open access stuff that's easy. So that's a really big concern."

"We look at the Half Moon Bay model and how successful they've been [and] why or how they became successful [with direct-to-consumer sales]. There are boats that fish there every day [...] and there's always something available. So [inland customers] can go to Half Moon Bay and there'll be something there to purchase. [Compare this to] Santa Cruz, there's only maybe a dozen boats that even commercially fish. And so there's not enough vessels there that can support reliable off-the-dock sales. I mean, if you put your money into it, you build a customer base, you get all the things that you have to do to market it, it could be successful, but it just is an awful lot of work. And you question, am I a fisherman or am I a marketer? It's making decisions on where your time goes in order to be able to make your business model work."

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary All participants rated the state of infrastructure as 'Poor,' and specifically identified the inconsistent access to ice to preserve their catch, insufficient infrastructure to offload their catch, and a lack of parking for potential customers for dockside sales.

- Several participants explained the lack of 24-hour access to ice was a significant challenge. One participant said ice must be trucked in from Salinas to the Santa Cruz harbor. They elaborated the ice melts in transit, which decreases the time fishermen can remain on the water before their ice is melted and they must return to port to keep their catch fresh.
 - One participant understood Santa Cruz harbor received grant funding for commercial fishing infrastructure and recommended prioritizing making ice accessible to local fishermen.
 - Another participant said the ice machine manufacturers have all gone out of business, which creates delays in getting custom machine parts for broken machines. One participant said access to fresh ice is a challenge for ports throughout California. They had firsthand experience with broken ice machines in Half Moon Bay, Bodega Bay, and Fort Bragg over the past year.

- One participant said Santa Cruz harbor’s offloading infrastructure (e.g., hoist, dock space) was insufficient to support the needs of the local salmon fleet, which must unload in other ports because of this constraint.
- One participant described local fishermen’s desires and efforts to improve infrastructure to support dockside sales, including access to free parking for customers.

Participant Quotes

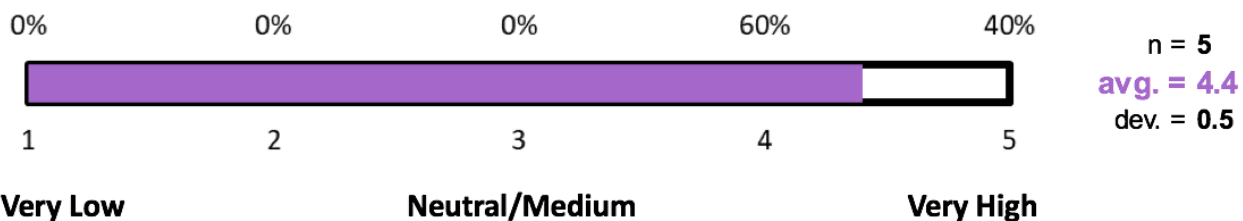
“There’s no ice to speak of, fresh ice in Santa Cruz. All or most of the ice that’s used is trucked in from Salinas. And that ice is half gone by the time that it gets on a boat. So instead of having five to ten days for that ice surviving and keeping your catch fresh and marketable, you have maybe three to five days. This means that if the fishing is not that hot, you’re going to have to come in before you’ve loaded the boat.”

“The ice machines are just in bad shape. Most of them are 1950s generations. The companies that built the ice machines are all out of business. If there’s a part that breaks, it has to be machined, special order. And invariably, they all break during the salmon season. And so if you talk about a rockfish fishery - that is a bridge fishery between salmon and crab and can be done all year round - it cannot survive because the ice machines died. And so somebody is going to have to step up and put the infrastructure in place where these fisheries can survive year-round, you know, once we have access to them. [...] It’s very, very troubling. [...] it’s about the survivability of the fleet. These are the kinds of infrastructure issues that make it more and more difficult for people to enter the fishery.”

“In Santa Cruz, we have one unloading site. So when you have an influx of salmon, for example, they have a hard time. In fact, they moved the fleet. The salmon fleet goes to other ports because of the difficulty of getting in and out and having access to the hoist in Santa Cruz. And that has to do with the overall decline of the fishery infrastructure more than anything else.”

“We were really going to start ramping up and working on dock sales before COVID hit. [We were going to try to have] the city or county or port district or whoever, give us free parking and get the funding for advertising to really get [customers] to start coming over the hill [from the Bay Area] to start buying fresh seafood. That’s a huge part of the infrastructure for the small boat guys to really get on their feet and put some money away.”

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port’s fishing operations?*



Discussion Summary Participants described disruptions from COVID-19 for commercial fishermen in Santa Cruz, including a temporary loss in fresh fish markets, increased demand at grocery stores and dockside markets for salmon, and continued uncertainty regarding the long-term impacts of the pandemic on fishing operations.

- One participant highlighted they lost 60 to 70 percent of their fresh fish market in early 2020, which rebounded in the summer. They stated it was too early to determine the long-term impacts of COVID-19 on local restaurants; however, they were aware of several that had gone out of business.
- One participant experienced an increase in demand and price per pound from grocery stores, specifically for salmon, since people were cooking meals at home. Another participant saw a drop in demand for Dungeness crab as COVID-19 progressed in Spring/Summer 2020 due to customers purchasing less expensive protein sources (i.e., beef, chicken).
- One participant said social media marketing increased the demand for dockside sales, which provided customers an outside experience that was considered safer. They explained fishermen experienced an increase in revenue, with dockside sales bringing in an additional \$2.00 to \$3.00 per pound.
- One participant noted COVID-19 was just one of the many challenging factors (i.e., season delays) when negotiating pricing with buyers. Several participants expressed concerns about how the fishing seasons would fare moving forward if COVID-19 persists, including continued loss of certain markets.

Participant Quotes

“What we saw with COVID-19 in the early part of the year [2020], 60 to 70 percent of the fresh fish market just went away when the restaurants were closed, and they came back in summer. What we didn't realize was, because everybody stayed home, the demand picked up in the grocery store. So that kind of saved the salmon season because instead of selling to the local restaurant, Safeway and Lucky's picked up some slack there as far as demand. But what we see going forward is that some percentage of the restaurants will never come back. There's a long-term residual effect that COVID-19 will have, a negative impact that we've yet to be able to quantify.”

“The impacts of COVID-19 for us as crabbers, it's huge. We're actually in discussions right now about possibly being able to go fishing, but not having a market. [...] Last year, I was selling to Safeway grocery stores pretty much exclusively through a couple of processors. Come to COVID in about the middle of February into March, they completely stopped buying our product. And that was mainly because people were freaking out about losing their jobs. Unemployment was a pretty big mess, people hadn't even got the money yet, so they were buying chicken, pork, and ground beef. They were not buying Dungeness crab. They weren't exactly having crab feeds at their house while everyone was worried they had COVID. So now we're dealing with the aftermath of that.”

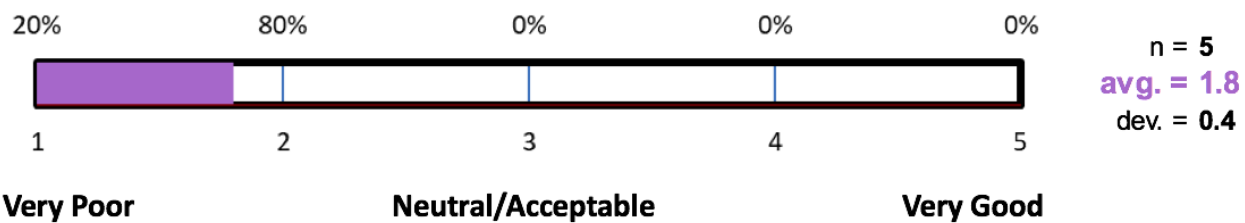
“Guys did sell off the boats in Santa Cruz, through social media it became very easy. All you had to do is post you were coming in with a certain amount of fish and a lot of times they were sold within the hour it took you to hit the dock. And they'd be waiting there. [...] They got paid pretty good for them. They got paid a lot more than we did, \$2.00 to \$3.00 more per pound, selling them privately like that. And people enjoy that during COVID, because they know that no one's touching it, it's not going through a processing facility where 500 people are playing with it. They know it's coming from your boat, from the ocean one hour ago, to their hands. The protein

sold very good. And salmon is the best for you as far as immune system building protein, that was a top one to sell.”

“There was a lot of uncertainty going into the salmon season. We started out at about \$5.00 per pound and it went up to \$7.00 per pound in a relatively short period of time, and we got to a pricing structure that was acceptable by the end of May or June. But going into the commercial salmon season in May, we were very, very concerned about the overall health of the fleet.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Participants expressed concerns about the ability to recruit and retain commercial fishermen operating out of Santa Cruz harbor, highlighting the local cost of living, rising slip fees, and a shift in harbor businesses from fishing to tourism as contributing factors.

- One participant said commercial fishing is not a financially viable profession for the Santa Cruz area due to the high living costs. Several participants explained most local commercial fishermen do not live in Santa Cruz, fish opportunistically, and work part-time in other professions.
- One participant said a majority of the Santa Cruz fleet are small boats, run by younger fishermen who have jobs other than commercial fishing in order to make ends meet. Another participant expressed concerns about retaining deckhands, primarily because they are not able to make a viable living from fishing alone.
- Several participants shared there have been younger fishermen who have entered into commercial fishing, mostly through open access fisheries, though the realities of generating profit have made it difficult to retain those fishermen.
 - One participant highlighted the high cost of living and the gentrification of the Santa Cruz area as a barrier to retaining local fishermen.

Participant Quotes

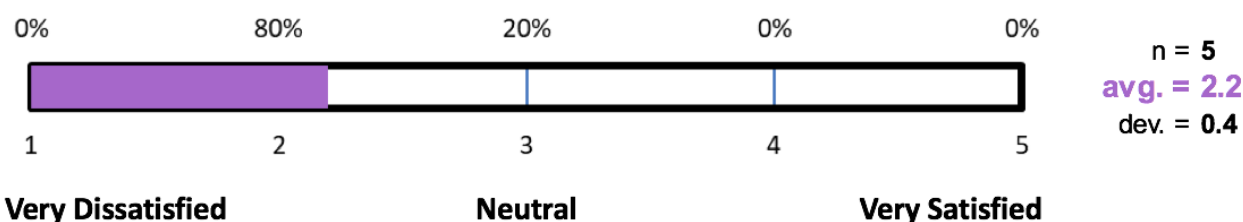
“You have to look at what the definition of [a commercial fishing] ‘participant’ is. Is it the schoolteacher that fishes in the summertime, or are you looking at people who are actually trying to make a living at commercial fishing? And there's people in between those two extremes. I kind of look at it from in order for commercial fishing to survive, you have to have a vibrant community of commercial fishermen that are dedicated to making this their living, their profession, that they are involved in all aspects of the fishery... and that is not being done. It is not viable in today's climate. And that's why I rated this as very poor.”

"It's very appealing, especially in the Santa Cruz port, because of our open access fisheries being so strong. They see these boats coming in with ten to 20 halibut. And that's something you do in a recreational sense beforehand that you really enjoy. So you're like 'oh, man, I can go to the [California Department of Fish and Wildlife] office and just pick up an open access license and go out there and register my dad's boat. Next thing you know, I'm a commercial fisherman.' And then you run into the same problem where you come in, and the buyer looks at you and says 'I got nowhere to sell these things.' [...] And a lot of guys do it part-time where they do construction half the year, or they work in an HVAC shop and then they go on the boat. There is a way to survive with that, just because our fisheries stocks are doing so well, but the marketing is bad and there are issues with the infrastructure."

"Deckhands, that's the biggest challenge I think a lot of us deal with, especially in Santa Cruz, because it's really expensive to live here, period. There is a lack of opportunity to produce a lot more money so that you can afford to pay a deckhand a living wage. Most of [my deckhands], they've had either some other [additional, part-time] gig, which is really difficult, too, because it's not like a lot of people can work [some] months out of the year for somebody else and then quit [and] then come work for you."

"Well, [fishermen are] also just leaving because they can't afford to live here where we fish. The price on dockside goes up, all of a sudden, you don't have the fish market, you have the taffies, you have the kites, you have the wine, you know, it's priced our profession out of our region. So we have to be bussed in, basically."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



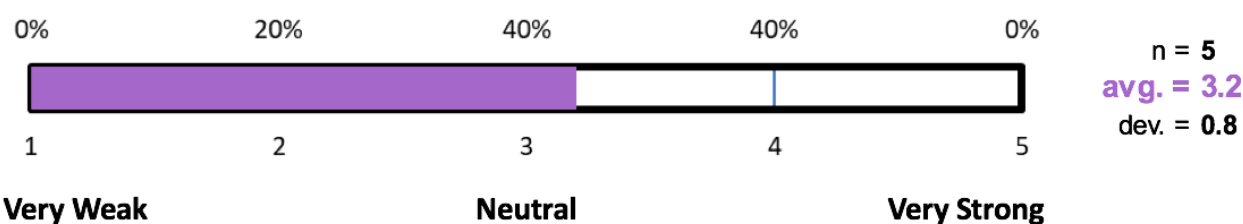
Discussion Summary Participants discussed their satisfaction and fulfillment from fishing itself. However, many said the stress from uncertainties (i.e., related to finances, restricted access, limited entry fisheries, and climate conditions) outweighs the positive aspects of fishing.

Participant Quotes

"I think anybody that calls ourselves a commercial fisherman says there's a high degree of job satisfaction in doing what we do, running up and down the coast, being on the water, seeing things that the typical person can't even imagine. And it's a huge amount of satisfaction in being able to figure out how to catch the fish and actually put them on the boat and then sell them. But the dissatisfaction comes from the uncertainty that we've outlined throughout this entire meeting [which is] the lack of access to some of the grounds, the uncertainty of restricted fisheries, the uncertainty of what the climate is going to do. It just grates on you every day as to whether or not you're going to be able to support your family into the future."

“The fulfilment is great. And we all get that, which numbs the stress for a while. But I think the stress outweighs the positives all year long, regardless of age group or regardless of where you're at in this industry, that's the biggest thing. And stress, I mean, we can go on for hours on why we're stressed out.”

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants expressed their appreciation for the strong relationships they have with many commercial fishermen out of Santa Cruz harbor. They also acknowledged the opportunity to expand the involvement of deckhands, part-time fishermen, and others when addressing high-stakes issues as a port (e.g., marine life entanglements).

- Several participants highlighted the camaraderie and support commercial fishermen offer one another. One participant recognized the independent nature of fishermen, which can make it challenging to bring everyone together.
 - One participant highlighted the need to improve relationships with part-time fishermen who are less involved and invested in fisheries politics and resource management. Another fisherman suggested there is an opportunity to better educate deckhands on priority issues to help build their awareness and involvement.
- One participant characterized the fishing community as having strong leadership involved with a number of fishing organizations and advisory bodies. Another participant acknowledged that this participation involved a select few and would like to see others involved to help shoulder the burden of engagement in fisheries policy processes.

Participant Quotes

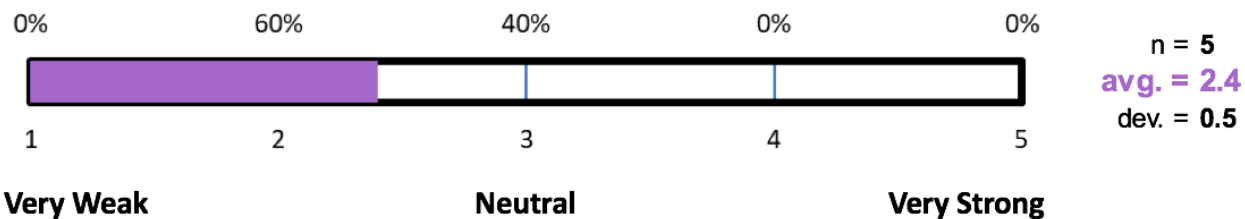
“There is very much a brotherhood or whatnot that goes on and people are very willing to help each other out. It's a good place to be for sure. We're all in this together. I mean, getting everybody to think the same way, it's kind of like herding cats. It's a bunch of independent people.”

“We [recently] had some port meetings for [Dungeness] crab. We've never really had that in the last ten years that I remember, coming together as a group and having a vote. I thought it was awesome because it showed that people that don't get along the greatest sometimes can come together and maybe make a decision.”

“Yeah, [name redacted] has been very instrumental in helping out with what's been going on with the [California Salmon Council], and rockfish, and stuff like that. Leadership-wise, [name redacted] has been doing a phenomenal job. And a lot of the other people as well. I guess we're trying to figure out how everybody fits into the whole equation with things that are changing within the industry. But I think it's going along pretty well.”

“There's a portion of the commercial fishermen, the small boat guys, that [are] not participating. They fish commercially [part-time] and they go home. [...] They need to be part of the community. I haven't figured out how to engage those people. So that's why I would rate this as weak, because we haven't reached out and got full participation. [We're] having a hard time with [...] how to motivate those people to participate.”

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants expressed their interest in strengthening relationships with external groups, including harbor officials and non-governmental organizations (NGOs). They highlighted the importance of trust building, and their willingness to invest time in building stronger relationships.

- Participants expressed their desire to help open lines of communication between the fishing community and external groups, specifically to help educate others about fishing activities to ensure discussions are well informed.
 - One participant shared there is room for improvement when working with fishing NGOs in the Monterey Bay area.
 - One participant emphasized the importance of meeting in-person with external groups, specifically environmental NGOs, that hold different perspectives about marine resource management. Another participant believed sharing ideas and experiences with outside groups will help to arrive at management decisions that are reflective of the needs of fishermen and environmental NGOs.
- One participant shared their experience with Santa Cruz harbor leadership, including harbormasters, directors, and office staff. They were hopeful that the new leadership within the harbor, who have been more engaged and interested in working with fishermen, will help address priority infrastructure needs.

Participant Quotes

“Perhaps it’s [a] lofty goal that I have. [...] There's a number of other [local external fishing] groups that we could be partnering with or working with, there's certainly those connections, but I think they could be strengthened. And, of course, that's a two way street. There needs to be willingness to work from both sides. But I think there's opportunity for improvement in that area as well.”

“The NGOs who are restricting us, they need to come down to our ports and meet us, face-to-face with them, not just text messaging. There is this disconnect, there needs to be a connection because if they do come down, a) they're going to have a beer with us, and b) after a couple of beers, they are going to start talking and understanding who we really are because

I've done it with them. [...] I've done it and it works. Maybe it won't work right away, but we just need to start that conversation. So that's why I said poor. [...] But there are very good external groups that are really helping us. And they got a fine line to walk too, which I understand."

"I mean, [Dungeness] crab, for example, just the push from the NGOs not understanding our livelihoods and the way the little bit of money that is so important to us to survive. [...] The lack of understanding from the other side is a huge issue. And we all need to come to the table and start seeing each other face-to-face and having real conversations with the other side to make them understand that we're not out there to pillage the ocean. We're out there to pay our bills and do this sustainably."

"We've had, like, issues in the past with people in leadership of our ports, like just the harbor masters, directors, people that worked in the office. And we've had this disconnect with them. And over the last couple of years, we've had a new harbourmaster [who is] a younger guy [and] more involved in the fisheries and asking questions. [...] [Commercial fishing is] part of the harbor and it's part of the business there. [...] I feel like they're willing to listen. I know they are. They're just uneducated in the fisheries. So I think if we [can] get them involved in some of our issues we're having, they'll help us."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

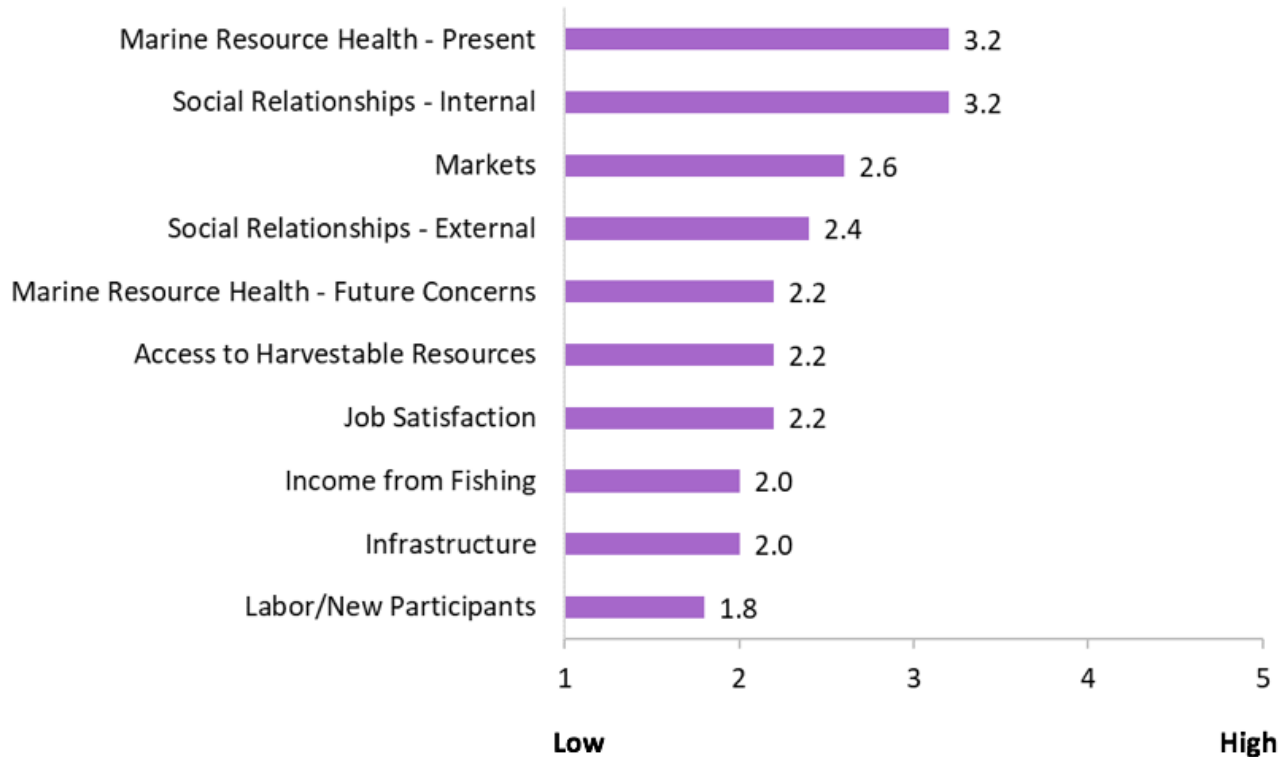
Discussion Summary One participant expressed interest in receiving a more comprehensive socioeconomic analysis of the contributions of California's commercial fishery to the state's economy. They suggested looking beyond ex-vessel value when evaluating the economic contributions of commercial fishing.

Participant Quotes

"Well this has to do with more on how [the National Oceanic and Atmospheric Administration or the National Marine Fisheries Service] reports the socioeconomic impact of the commercial fishery. They never enumerate the total financial impact of commercial fishery [beyond the ex-vessel value]. And I don't know if the state's going to look at that. I've talked to a couple of people about it and they kind of give you the deer in the headlights [...] 'what the heck are you talking about?' But you very seldom see what the full economic impact of the increase or decrease of the commercial fishery has to the state of California. They need to do a full economic impact [report] on what commercial fisheries mean to the state."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

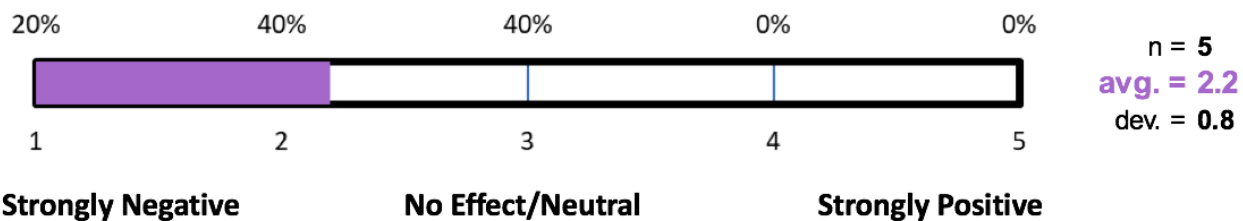
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary When asked about ecological outcomes from the MPA network, participants reported MPAs have had negative or neutral effects on the health of marine resources. They stated that while some local stocks have been rebuilt, it is difficult to determine if this is due to MPAs.

- Several participants highlighted that increased fishing pressure in open areas has depleted local reefs and suggested rotating MPA closures to help avoid depleting the resources in areas that remain open.

- One participant expressed concerns about fishing pressure on local reefs from the charter boat fleet, specifically with the take of juvenile fish.
- Several participants highlighted MPAs have redirected and concentrated fishing pressure along MPA boundary lines (i.e., walls of gear), which creates risks for marine life entanglements.
 - One participant said MPAs inhibit access to fishing grounds for Dungeness crab, which they did not understand since crab fishing takes place on sandy bottom rather than rocky reef habitat.
- One participant expressed frustration that some local MPAs are very small. They were interested in understanding the science that demonstrates these closures are effective in managing resources.

Participant Quotes

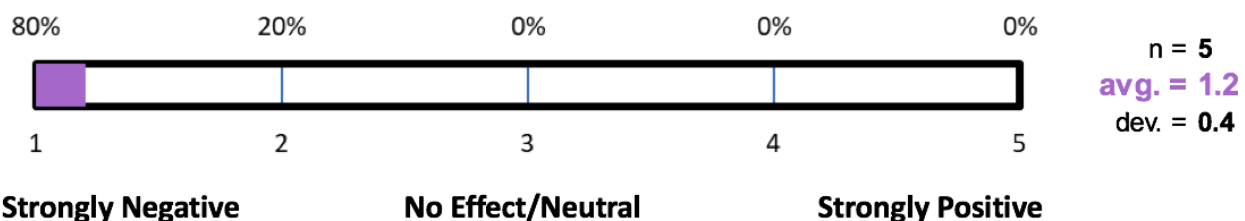
“I said neutral because of that gray area there. I feel like it's positive because our stocks are rebuilt and maybe [the MPAs have] something to do with that, but I really don't feel like it does. MPAs in our area make you target other areas. When I was younger and [MPAs] got put into place, we used to fish those areas a lot, so the pressure was spread out and you weren't just hovering over the same rock every time. And as soon as [...] MPAs were put into place, [myself and other small boat, open access fishermen] would go try to take everything we could in the open areas within our quota. And then our friends would come in the next day and do that after. So I believe that the MPAs are more negative than positive, so I went neutral.”

“I think we're at the pivot point where there most definitely has to start being rotating blocks on MPAs because [...] I've seen over the years how depleted [some] reefs have gotten. I mean, Point of Monterey used to be great, and now it's been devastated because of the charter boat fleet. And I think it needs to be regulated, in between, for commercial fishermen.”

“I mean, I'm guilty of it, too. [...] When the crab bite gets to be more of a scratch, people put their gear really close to the MPAs. I mean, call it a more profitable area. You're hoping to suck crab out of those areas, which does make a massive entanglement risk for whales, which is something that probably we should be looking at a little bit more in the future.”

“There needs to be some way to control the access to these MPAs now that they've done their job and access should be given. But it needs to be governed. And we, in this group, [don't] have all the data, but we can use our experiences to help guide that process if it comes to be.”

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* on page 19 which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall *What other types of effects or impacts have fishermen from your port experienced from MPA implementation?*

Discussion Summary Participants indicated MPA impacts on fishermen range from negative to strongly negative, including increased operational costs, safety concerns due to traveling further distances, and decreased opportunity to earn a living locally.

- Several participants shared increased costs to run boats (i.e., fuel, labor costs) to travel farther distances outweigh the potential profit from the harvested catch. They discussed the need to travel further to access their quotas and to fish in deeper water, which can pose challenges when navigating inclement weather conditions.
 - One participant emphasized the importance of having access to local areas to fish in order to make a viable living. They said smaller boats specifically face safety concerns when traveling longer distances.
- Several participants said MPAs negatively affect the local fleet's landings and income. One participant shared they had to move into different fisheries that were less affected by MPAs in order to make a living.
 - One participant expressed concerns that there are likely additional, unquantified impacts on fishermen's landings and income due to increased fishing pressure affecting open areas.
- One participant shared they left the fishing industry due to MPA implementation because of reduced opportunities to earn a living, though they ultimately re-entered the industry.

Participant Quotes

"I'm not even partaking in the groundfish industry right now because the opportunity is so limited, it's not worth going and turning the key to the boat on because there's not enough access to make it worth it. I could go out and fish two or three days to try to get my quota and I'd burn as much fuel as I'll make in money."

"It's just ridiculous that we need to travel so far from our ports and we go around these weather points and current points that put us in critical conditions where we're going to die, especially a small boat guy trying to go get his open access. It's putting your life in danger and we don't have any [life] insurance. So to make us drive 40 miles each direction into bad weather to hope to get a couple of hundred pounds to come back, to maybe [cover] your fuel cost and give you \$200 to \$300 in your pocket at the end of the day, I don't think there's any profession in the United States right now that's regulated that would say this is okay. It's less than minimum wage, and you're going to die. We don't have a union, we don't have any support. [...] And because our hearts are into it, we're going to do it. And then ultimately we're going to die, or we are going to have to go and do something else. It sucks. It's scary. It's reality."

"[MPAs affect] landings. It even affects our crabbing. It affects our salmon. [...] Anything you can catch with open access, or guys with permits, they lost out fishing by having MPAs there. It might have cost us more than whoever was involved with the MPAs even knows, because now we've overfished a lot of reefs that we've had locally just to make up income lost through those MPAs."

"I had to move on to other fisheries since [MPA implementation] because of that lack of opportunity to fish there. [...] A guy starting out should have that opportunity to go to these places and fish and be able to pay his bills."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants discussed the positive and negative effects of local MPAs, in addition to effects from two MPAs located in Northern California. Several participants expressed concerns about increased fishing pressure on areas adjacent to MPAs. Several participants suggested opening a number of MPAs on a rotating basis to reduce compaction and relieve fishing pressure on nearby fishing grounds.

- *Soquel Canyon State Marine Conservation Area (SMCA)*: One participant expressed concerns that the Soquel Canyon SMCA creates risks for whale entanglements due to its placement along the canyon ledge, where upwelling conditions create rich feeding grounds for marine life. They stated the compaction of fixed gear along the MPA boundaries can result in "walls of gear" which increases risks of entanglement.
 - One participant thought opening Soquel Canyon SMCA would help sustain the financial viability of Santa Cruz's small boat fishing operations due to its proximity to port.
- *Portuguese Ledge SMCA*: Several participants thought opening Portuguese Ledge SMCA would help sustain the financial viability of and increase safety for Santa Cruz's small boat fishing operations due to its proximity to port. One participant expressed support for this MPA, and agreed with others that there would be a benefit to rotating this MPA with others located to the south.
- *Carmel Bay SMCA*: One participant thought the Carmel Bay SMCA was important habitat to protect. They suggested revisiting the boundaries in the area to help reduce overfishing.
- *Point Lobos SMCA and Point Lobos State Marine Reserve (SMR)*: One participant expressed support for the Point Lobos SMCA and SMR to help protect juvenile fish in Carmel Bay and reduce commercial and sport fishing pressure.
- *Point Sur SMCA and Point Sur SMR*: One participant said they had witnessed depletion of rockfish populations along the boundaries of MPAs at Big Sur reefs. Another participant expressed interest in learning more about research that has been conducted in and around these MPAs.
- *Big Creek SMCA and Big Creek SMR*: One participant shared that Big Creek SMCA and SMR was a productive area and was successful in replenishing fish populations in deep water habitats. They expressed concerns about compaction along these MPA boundaries and recommended these MPAs be opened to fishermen to help fill their available quotas without compromising safety when traveling further distances.
- *Año Nuevo SMR*: Before MPA implementation, one participant fished the Año Nuevo area for lingcod and rockfish. They shared it was unnecessary to close these fishing grounds since bycatch was negligible due to the shallow habitat, which allowed for non-targeted species to be released without harm (i.e., using descending devices). One participant expressed frustration because this and the Greyhound Rock SMCA encompass fishing grounds that are relatively close

to Santa Cruz harbor. They explained local small-boat fishermen must travel into San Mateo County to fish north of Santa Cruz, which adds safety risks.

- One participant mentioned this MPA negatively affects crab fishermen. Another participant shared that the deepwater shelf habitat near Año Nuevo SMR was important fishing grounds for chili pepper, canary, and vermillion rockfish quotas that local fishermen are allocated but lack access to (i.e., water deeper than 40 fathoms).
- *Greyhound Rock SMCA*: One participant said Greyhound Rock SMCA was good halibut fishing grounds prior to its closure. As noted above for the Año Nuevo SMR, one participant shared their concerns that this MPA includes good fishing grounds close to Santa Cruz harbor.
- *Bodega Head SMCA, Bodega Head SMR, and Stewarts Point SMR*: Participants expressed that these MPAs negatively affect the surrounding areas that are open to commercial fishing due to compaction and increased fishing pressure.

Participant Quotes

“Soquel Canyon [SMCA], it's awesome to have something that you think protects something, but we have to really start looking at what we're endangering here, and we're having huge issues with these whale entanglements. You guys, we have an MPA in the middle of a feeding area for whales. It's literally along the ledge there. And [fishermen are] going to set crab pots there if there's any kind of crabs. And [...] from what I hear, right now it's the only place that has crabs. There's a lot of life, there's feed there. So that Soquel Canyon spot [...] is a huge red flag because if we set up walls [of gear] out there, we're just asking to destroy our whole crab industry. And right now, the entanglement risk is super high. [...] I would definitely say, this is my biggest red flag for our area because of the effects it can have on a completely different industry.”

“Portuguese Ledge [SMCA] is great that it's there, but it needs to be rotated with these [MPAs] down below: [Point Lobos SMR and SMCA, Point Sur SMCA and SMR, and Big Creek SMCA and SMR] because as you can see, [it is close to both the ports of] Santa Cruz and Moss Landing.”

“Point Lobos [SMCA and SMR] is great. There is so much pressure from the commercial fleet and the charter fleet around the whole Point of Monterey. All the way wrapped around is just all juvenile fish, even in Carmel Bay. So that real small one in Carmel Bay [Carmel Bay SMCA] should probably stay there because I know it's a habitat deal. They almost need to redraw some lines because everything's kind of been overfished in that area.”

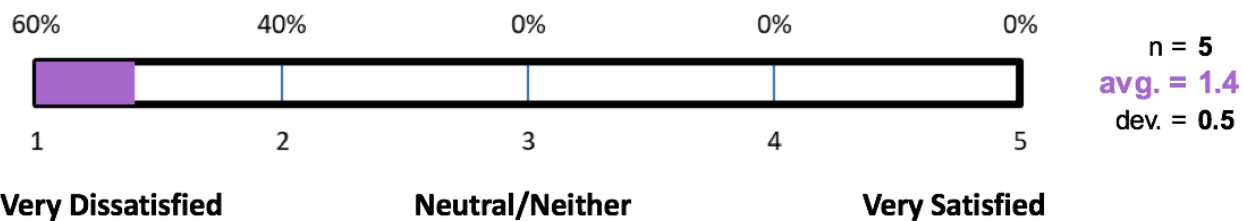
“Big Creek [SMCA and SMR] down there has been really good because stuff filters out down around Point Lopez and I believe goes back into the deep down there, from what I've seen and experienced. But these access points that are right around them are getting hit so heavily by the sport and by the other stuff. We need to be able to get inside there to get into some untouched areas for safety reasons [i.e., protection during inclement weather] and just to get the quota that we're allowed.”

“Año Nuevo and Greyhound Rock, it's a huge portion of our north coast that we go fish on a small boat [...] and other than that, we have to go all the way around to San Mateo. It's just the risk factor. How do we evaluate the risk of another species and the risk of a human? In

hook-and-line fishing, it shouldn't even be an issue. The weather and the environment dictates that you're not going to be fishing in certain places or certain zones. [...] Now, you have to actually drive over all these productive spots and go further and further. I just want to see the science there."

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants expressed their dissatisfaction with the management of the MPA network, primarily due to poor communication from managers and decision-makers about MPA management goals.

- One participant said this focus group was the first communication they had received about MPAs since the implementation of the MPAs in the Monterey Bay area. They perceived this as unfair to fishermen, who, from their perspective, have not been actively engaged.
 - Many participants were not aware of management goals related to the MPA network and had not received communication about MPA management. One participant suggested managers use the existing communication networks of harbors, fishing associations, and local fishermen to communicate information about MPA management.
 - One participant said they and other local fishermen believed the MPA network was designed to be a 10-year experimental, temporary effort to rebuild stocks.
- One participant expressed their frustration about the inconsistencies across the MPA network that allow fishing in some MPAs but not others.
- One participant shared they were involved in an effort to advocate that the Pacific Fisheries Management Council rotate RCAs. They explained the premise for this was to help mitigate the negative effects caused by MPAs. They specified that only certain fishing methods (i.e., non-ground contact fishing) would be allowed.

Participant Quotes

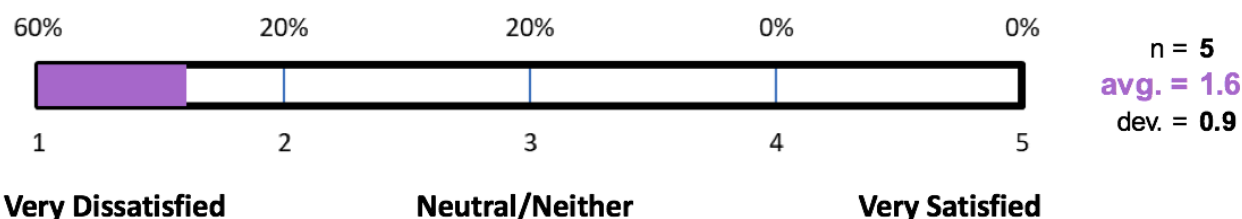
"This is the first talk I've had [about] MPAs since the day they told me an MPA was going in. So I would say that the information part of it, it's pretty horrible considering I've fished for like 23 years [...] The fairness of it goes into play with how much information you get [from managers] because you feel it's unfairly done when you have no idea what's going on. You know that it's a line that you have to abide by, a rule and regulation that is enforced by Fish and Wildlife when you're out there. [...] So opportunities for fishermen involvement, I would say zero, very dissatisfied. Effectiveness in achieving goals, I don't even know a goal they [managers] were going for. I don't think their goals were achieved. I think that the fishing was fine before and we've created problems in search of a solution."

“I think [there has been a missed opportunity in] getting the information to the fishermen. We don't know what's going on with [MPA management]. So if the MPAs are going into our future—which we strongly believe is ineffective and unnecessary, especially with the way the stocks have been rebuilt—but if we can get that information to the harbors and the associations and the fishermen, at least [we would] know what's going on. Right now it feels like it was just a giant waste of time.”

“I thought that MPAs were actually going to be an experimental area for ten years to figure out if these stocks could be rebuilt and then once that [happened], they were going to be kind of moved around. [...] Most fishermen I know thought when this came in, it was going to be a 10-year temporary thing to try to rebuild our stocks. But now they're rebuilt, there is no plan of ever giving those places back.”

“We floated the idea of the revolving blocks to the [Pacific Fisheries Management Council] on opening the RCA [...] so that there would be access within a three hour run from all the ports to an open area. Then you could revolve those, and you're never allowing that area to be overfished. When you open up an area, we want fishing techniques or methods that are non-ground contact fisheries so that there's no harm done to the soft coral or whatever other little critters happen to be on the bottom that would be of concern with [external] groups. When the MPAs were developed, it was kind of a carte blanche, [all fishing in the MPAs] stops. And we know now that there are methods to harvest those resources without significantly impacting other parts of that area. So when we talk about opening the MPAs, we also need to consider what fishing techniques could be used that adequately make that a sustainable fishery.”

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants highlighted poor communication about MPA monitoring goals and specifics about monitoring studies, including which researchers were conducting monitoring work.

- One participant emphasized the importance of communicating the results with fishermen and desired that fishermen be actively involved in MPA research.

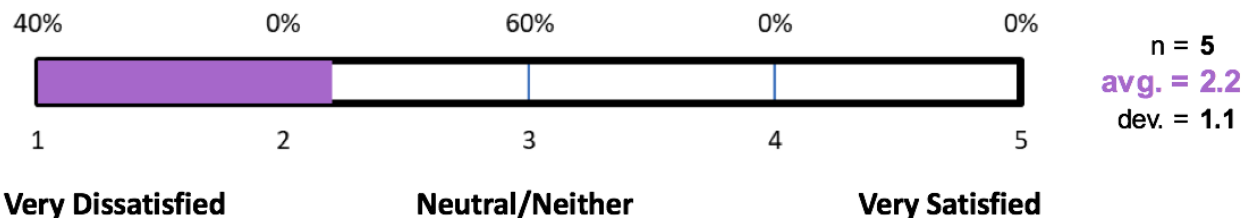
Participant Quotes

“I don't even understand the monitoring of it. They maybe do stock assessments on the fish. Communication of results, collaboration with fishermen, the inclusion of fishermen's perspectives, I don't feel like any of that was touched on. So I was very dissatisfied.”

“Who is it that actually goes out and samples the MPAs? Do they do studies on the MPAs to see what the rebuilding is? I mean, I know they do something, but I don't really hear much about it.”

“I've never heard of any kind of research that would want any of our information on those at all. We're left in the dark on this one. I have no idea if they're doing anything.”

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants reported a range of perspectives about MPA enforcement, from very dissatisfied to neutral. Some participants expressed concern that enforcement was unfair, misinformed, and inconsistent, while other participants expressed appreciation for the flexibility and consideration they received from CDFW Law Enforcement Division (LED).

- One participant said they did not feel comfortable reaching out to local wardens out of fear they would be perceived as breaking the rules. They suggested LED improve their relationships with fishermen to establish better trust and communication.
 - One participant shared their concerns with some of the shapes of certain MPAs, which can be difficult to navigate when on the water.
- Two participants discussed challenges with the GPS technology in their navigation systems as it relates to MPA boundaries.
 - One participant explained that a chip they purchased with digital files for their navigation system came with incorrect GPS coordinates for MPA boundary lines, which resulted in a situation where they unknowingly dropped fixed gear inside an MPA. They said the CDFW wardens worked with them and did not ticket them; however, the experience took up a great deal of their time.
 - Another participant described challenges entering the coordinates into their navigation system. They suggested CDFW provide computer chips with GPS coordinates of various closed areas.
- One participant recalled a story about a fisherman they knew who mistakenly fished inside an MPA and was fined \$25,000. They believed reasonable considerations should be made by LED when people make honest mistakes fishing in MPAs.
- One participant described inconsistencies in the enforcement of recreational fishermen versus commercial fishermen. They have observed recreational fishing inside MPAs located farther away from the harbor, which they perceived as going unenforced.
- One participant expressed frustration about turnover of local wardens who they believed were not familiar enough with marine regulations. They desired wardens who could better assist the fishing community with information requests.

Participant Quotes

"Enforcement here is a big thing in California. We have the strictest enforcement in Monterey Bay, but I don't feel that our officers are willing to work with us on education. When you call or ask any Fish and Wildlife officer, you are instantly considered [to have done] something wrong. And it's like, no, I'm just asking you a question because there's so many questions that are unanswered. So where can I go to just ask a question without me being red flagged? And that's a massive issue up and down the West Coast, that we don't feel comfortable with our Fish and Wildlife officers because we can't ask them questions. [...] They go, well, didn't you see this online? I don't go online. An MPA shouldn't be a trapezoid, that's what I'm saying."

"I know one guy that was fishing salmon up at Stewarts Point, and you're not supposed to fish anything at Stewarts Point. He was fined \$25,000 and he only crossed the line, turned around and got out. He didn't even go a quarter of a mile inside. And \$25,000 to the average salmon fisherman could be a whole year's worth of the profit. It's just absurd to have these kinds of penalties for minor conflicts with the MPA. Now, there's another story of a guy that was fishing the MPA at Stewarts Point for crab, and just was flagrantly abusing access to it. Yeah, they shoulda thrown him in jail. But, you know, there's got to be some reasonableness to people that stumble into the MPAs and get caught."

"The frustration is that Fish and Wildlife rotates these officers. I know there's one officer that came through Santa Cruz not too long ago and he'd spent his entire career chasing deer hunters and then they threw him in the marine division. I have forgotten more about regs than he knew. So he would think that he would have something on you and he would spend an hour of your time looking it up in the reg. And so, the message back to the Department is: you need to have these people specialized so that they can manage the resource and make certain that people are following the rules, but they also need to be a resource to the community and not a detriment to it."

19. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants shared additional comments and concerns about MPAs.

- One participant expressed concern that the MPA network is permanent and that new MPAs would be added. They believed it was unfair to inhibit fishermen's access to public natural resources.
- One participant reiterated their concerns that some local MPAs may be creating marine life entanglement risks. They said it is important to look at both positives and negatives from the MPA network, and believed the negatives, such as entanglement risk and economic impacts, outweigh the positives.
- Several participants expressed that the local small boat fleet is experiencing extreme challenges with the financial viability of their fishing operations. They stated opening access to several local MPAs would help sustain the fleet. They discussed the need for a year-round bridge fishery (i.e., year-round access to allocations and habitats for rockfish fishing), which would ensure that locally sourced seafood could be available for the community.

Participant Quotes

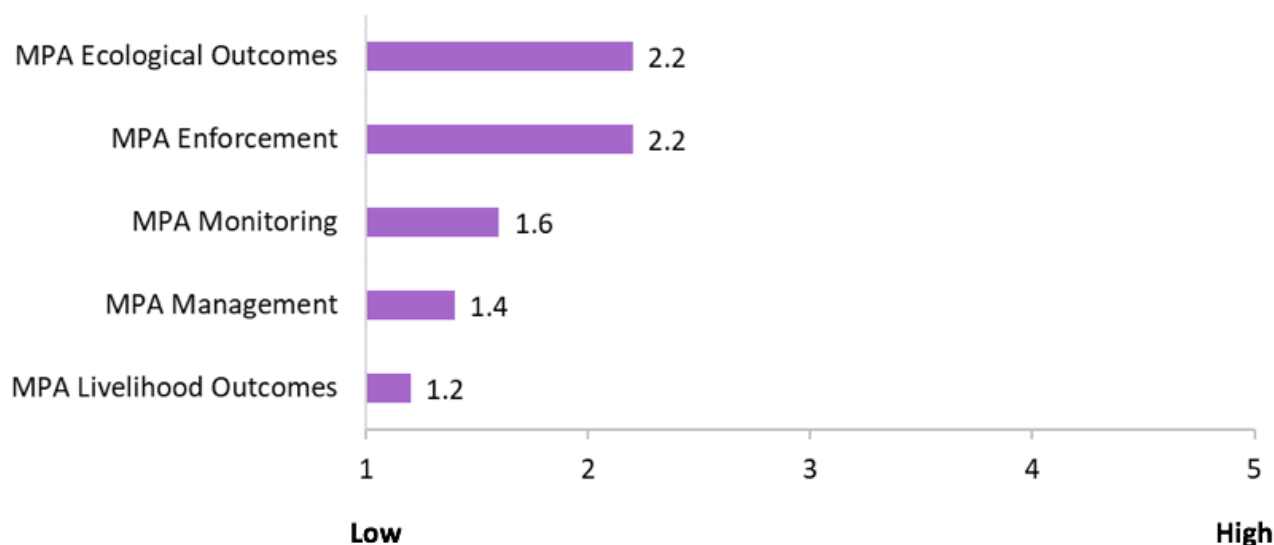
“My concern on the MPAs is that they are permanent, that we'll never fish these zones ever. And they're going to implement even more? What's the benefit from this public resource, what are we getting back from it? There has to be give and take, you just can't take. This wasn't theirs to take from us. We need to know why it was taken. And what's the future to it?”

“I would say don't create lines where you don't need to. You're creating an issue. We're creating [a situation] that can harm our environment and put people in harm's way, with what they have to do in order to reach and access these fish, as well as our wildlife, our whales, our turtles, everything. We're creating lines in other industries now because we're trying to avoid these areas. So I think you got to look at the big picture, the benefits of this [MPA network] and the downside. And there's really not much benefit, with a huge downside full of economic impact.”

“The small boat fleet is in dire straits. It can't wait two or three years to have someone say at the state level ‘well, maybe we'll open up the Portuguese Ledge or Soquel Hole.’ We need some action today. And I know that's difficult in the world of COVID-19. But that's what needs to be done and something needs to be done, and quickly.”

“I think having a bridge fishery for commercial fishermen that helps supplement making a whole year-round income [would be helpful]. [...] It is such a sustainable resource, especially when it's done with the hook-and-line fisheries. It is so important to produce local food to individuals. And I think a lot of people that consume seafood maybe don't really realize what's going on. [...] We import so much other fish from different areas, people have become very disconnected with what commercial fishermen do and don't necessarily have the ability to do, in order to bring those type of products to our local areas. [...] It's really challenging for somebody to go out there and actually make a little bit of money doing it while also being able to provide that fish for someone to eat locally, which I think is a really cool thing to do.”

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?

20b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

20c. Process Open-ended Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?

Discussion Summary (Due to time constraints during the focus group, participants were not asked these questions, and so did not provide ratings or discuss their responses.)

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network ***Members of Moss Landing's Commercial Fishing Community***

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Moss Landing

Date: Wednesday, December 16, 2020

Participants: Calder Deyerle, Alan Lovewell, Wilson Quick, Jerid Rold

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

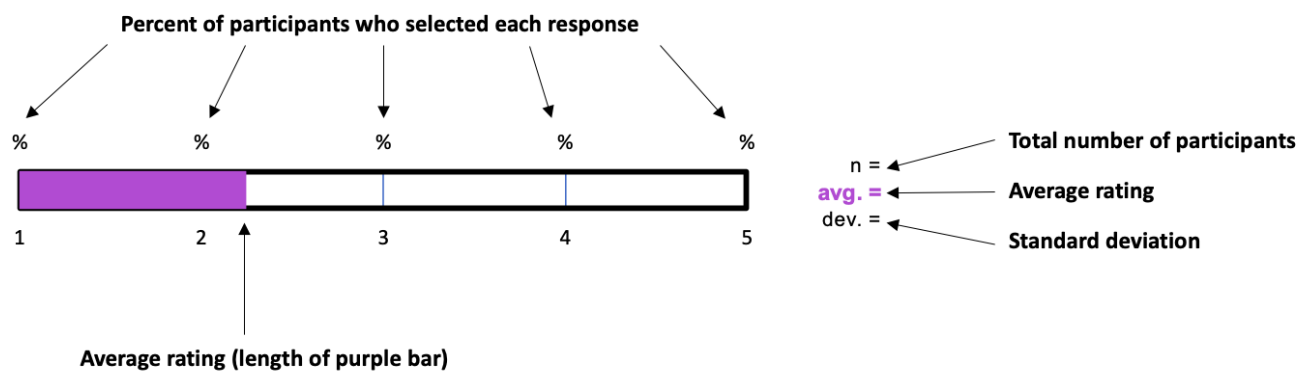
Overview

On December 16, 2020, four commercial fishermen operating out of Moss Landing participated in the fifteenth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 16 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 18 and 29 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



Participants requested several resources be shared with them, including:

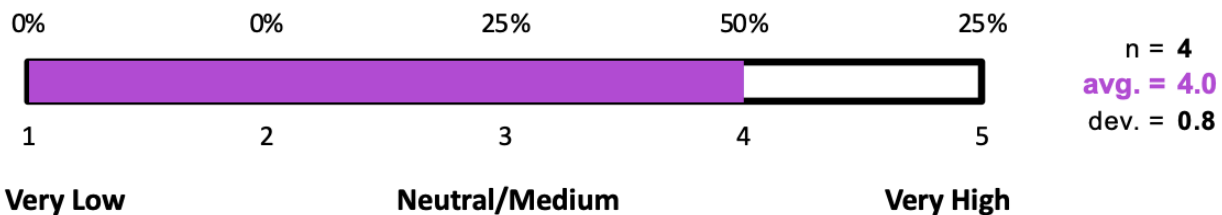
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: Central Coast](#)
 - [Summary of Results from Baseline Monitoring of Marine Protected Areas 2007–2012, Central Coast](#)
- [Marine Protected Area Monitoring Program, 2019–2021](#)

Our Project Team would like to express our appreciation to the four Moss Landing fishermen—Calder Deyerle, Alan Lovewell, Wilson Quick, and Jerid Rold—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Several participants reported marine resource health overall, including abundance, diversity, size, and habitat, is high. A couple participants stated marine resource abundance varies across fisheries and that some species are doing better than others, making it difficult to provide one rating for this question.

- Participants also commented on the cyclical and dynamic nature of the fisheries and ocean, including water quality, and stated fishermen have come to expect and have adapted to changing conditions; one participant wondered whether these changes can be wholly attributed to natural cycles or if human-driven forces are also in effect.
- Several participants believed groundfish size, abundance, and habitat are especially healthy, particularly for deepwater rockfish and shallow nearshore rockfish. One participant estimated populations have rebuilt to pre-1980s levels.
- Participants reported Dungeness crab abundance is low but is cyclical in nature.
- One participant stated the health of salmon stocks varies from season to season. Another participant questioned whether variability is related to water usage in Central California causing low water levels in rivers, which can negatively affect salmon health.
- One participant explained that the health of squid stocks is poor. Another participant indicated heavy fishing pressure, including from out-of-state boats, may be a contributing factor.
- One participant reported spot prawn abundance is declining, but was unsure why. A couple participants believed spot prawn population abundances are cyclical and that the species is currently in a down cycle.
 - One participant recalled catching consistently high abundance of spot prawns in San Diego years ago until one day there were few to be caught; they stated the species rebounded several years later.

Participant Quotes

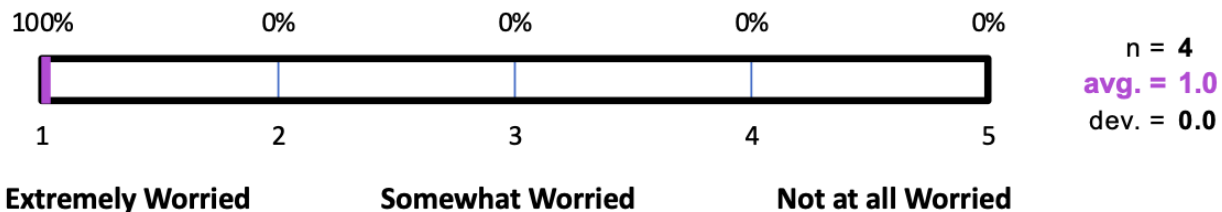
“We're dealing somewhat with the Dungeness crab crisis and [with] some pretty variable seasons in terms of salmon, and the squid I know has been pretty poor recently, so it was hard to get across all these different species [and] try to distill it into one measure of abundance.”

“The ebbs and flows of everything is just something that we've grown accustomed to and have expected. I think the question becomes: are there factors, whether it's climate or anthropogenic forces, that are making it more dramatic?”

"I think that the rockfish are doing really well in particular and that their populations are probably fully rebuilt to what they were before the 80s [. . .] And then, on the other hand, you've got [Dungeness] crab and spot prawns, which are in a really down cycle. Maybe that happens regardless of the fact that it's this year in particular... it's kind of more of a natural, long-term cyclical thing."

"We get a little bit of [spot] prawns from another boat down south in Monterey, and it's painful to watch for that resource to somewhat go away and not exactly know why. And again, it could be just the seasonal variation, which is fine... we know that the climate is changing, the ocean is changing always. But you have to scratch your head and wonder what's going on and what is the explanation there."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary With regard to the future health of marine resources, participants reported fishermen are more worried about the effectiveness of fisheries management than they are about the resources themselves.

- Several participants believed fishery regulations and management are a threat to the longevity of the commercial fishing industry.
- One participant added they are worried about the combined effects of poor management and the impacts of ocean changes on the health of marine resources.

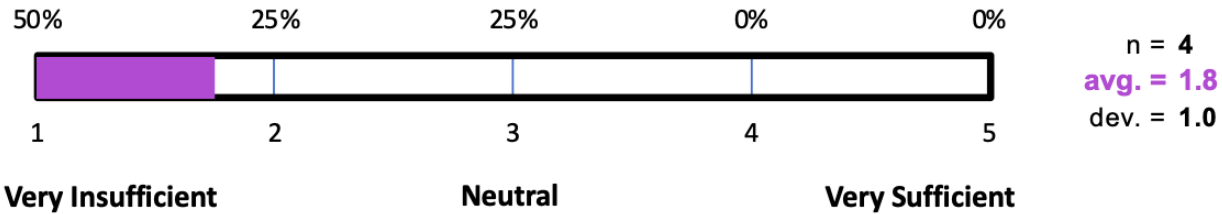
Participant Quotes

"I don't think there's any fisherman that I talk to that isn't concerned for the health and well-being of their industry and their job and the opportunity ahead. I think it's not so much concern around the resource but more concern around the regulation and management."

"It's kind of the general consensus of fishermen [that they are extremely worried because of] how quickly everything is changing with regulations and environmental factors [. . .] And then definitely in my mind, future ocean changes are a huge issue, especially considering all that we learned about whale entanglements [related to a changing climate affecting whale distributions and populations] and the direction things are heading. I'm definitely extremely worried about multiple particulars within the management and the ocean condition changes that we could be experiencing in the future."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants identified several state and federal rules and regulations, including areas restricted to fishing, fishing permit requirements, quotas, and fishery seasonality, that hinder fishermen's access to marine resources.

- Several participants believed rockfish conservation areas (RCAs) prevent access to most rockfish habitat in the Moss Landing area.
 - One participant highlighted fishermen are unable to fish their full rockfish quotas due to RCAs. They explained access to the resource would improve if RCA lines were moved so fishermen could fish deeper waters (i.e., 90 fathoms as opposed to 50 fathoms); another participant agreed and believed the resources have been rebuilt to the point where fishermen should now be able to access RCAs, especially since Moss Landing is located closer to deeper waters relative to other ports.
 - Two participants were encouraged by the recent increase in access to rockfish, though one participant reported few fishermen are targeting that fishery.
- Participants discussed the financial barrier to obtain fishing permits. One participant explained that it would be cost prohibitive for a fisherman to purchase enough permits to access the full diversity of fisheries in the Moss Landing area. Another participant believed salmon permits are currently the most affordable.
 - A couple participants recounted a time before fishery-specific permitting when fishermen were able to access a diversity of fisheries throughout the year with a single commercial fishing license. One participant emphasized that while fishery-specific permits have helped to combat cases of overfishing, they have also made it difficult for fishermen to participate in a range of fisheries.
- A participant explained that in comparison to other ports in California, Moss Landing fishermen have sufficient access to resources. However, they stated Moss Landing fishermen face the same barriers to access as other ports including area closures, difficulty acquiring permits, and quotas. The participant stated their personal access to marine resources is sufficient enough to support their livelihood despite these challenges.
- A couple participants expressed concerns with regard to the influence money and special interest groups have on both state and federal fisheries management decisions that tend to decrease fishermen's access to marine resources.
 - One participant believed management decisions made under these influences benefit large corporations while hurting small fishing businesses.

Participant Quotes

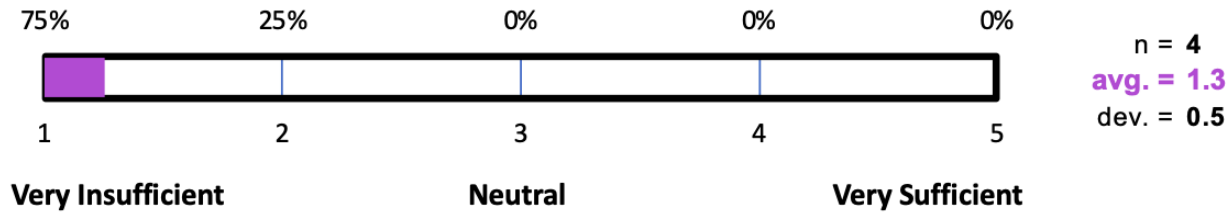
"There are so many areas we can't access where I feel like we should be able to access at this point. I feel like we were in a very bad position 40 years ago: we were gillnetting, we were dragging, we were hook-and-lining, we were harvesting aggressively and probably practicing some practices that we shouldn't have been. But at this point, we haven't been doing that for so long that our resources have built up to where I think we need to find some way to start accessing these areas where these fish are. We are starting to do that, I'm seeing baby steps, like they just moved the line out to 50 fathoms. Myself, I would have liked to see the line instead moved to 90 fathoms because I feel like the fish that we really should be harvesting are the fish in the deeper areas like chili's [chilipepper rockfish] and those types of species [. . .] Moss Landing is a very unique harbor: there's other harbors that have to go miles to get to deep water [and] edges and reefs and stuff. Moss Landing, we have edges right out front. We don't have a lot of rock... we have Big Sur. So I feel like it's kind of a unique place where we can access some areas that are fishable, but I still think we're a long ways away from accessing what we really should be accessing and the areas that we should be getting to."

"The regulations make it very difficult to fish for the diverse species that we have around here, but if you have a billion dollars worth of permits, then you do have a pretty diverse group of fisheries here."

"The permitted system is very constraining. It really sort of keeps fishermen from moving from one fishery to the next in a way [that] was essential as a fisherman to always be changing and to always be varying the species that you're targeting to follow that curve of those upswings and downswings. And I think there was actually a really cool dynamic associated with that relationship. These permit structures are very rigid and it's not to say that they've been a bad thing; I think it's obviously been a good thing in terms of recovering a lot of the resource and bringing back a lot of our overfished species. But it's sort of left a scar in our fishing communities in terms of the flexibility that fishermen really need to make a living."

"I am concerned with how money is influencing the decisions [. . .] in [the California Department of Fish and Wildlife] policy, in the government's policies. I think that big dollars are influencing the decisions on how to regulate the fisheries and how to open fisheries and how to fish the fisheries. And when you have big money influencing that, I feel like their goal is to figure out a way to lump quota under one boat [. . .] and obtain everything and gather it all for themselves and take it away from the small operations that are making little bits of money feeding their family with it. And that's what I see myself: everything's being changed in the direction to benefit big businesses, big companies, big markets, and it's being taken from the small permits and the little guys. So my concern is that money is influencing these decisions more than science or the people."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants reported that although fishing is a difficult, essential job that few people are willing or able to do, fishermen overall are not making enough money in the fishing industry. Several participants attributed fishermen’s insufficient income to fishery management and regulations discussed on page 5, high operating costs, and the United States’ reliance on seafood imports.

- One participant explained they are surviving on their fishing income, but there have been times when they have had to rely on their spouse’s income to make ends meet. They indicated their fishing income does not allow them to contribute to savings or make big purchases like buying a house.
- One participant believed that at any given time, there is enough opportunity both in terms of access and resource availability to make sufficient income. However, another participant shared that while they earn sufficient income from fishing, they considered this income to be insufficient for others.
- One participant recalled fishermen used to make sufficient income but stated this is no longer the case.
- A couple participants cited high overhead costs as one reason why fishermen do not make sufficient income compared to other essential workers like garbage collectors and mail carriers.
- With regard to crew members’ income, one participant explained they pay their crew well, but due to the high demands of the job, they wished they could pay them more. However, they are unable to because they must also cover their operating expenses.
- One participant stated their desire that consumers eat more locally- or domestically-caught seafood rather than relying on international imports, which would help support local fishermen’s income.

Participant Quotes

“I would like to believe that a job like fishing should be at a level where you could support your family by yourself. I feel like that is a tough job. It's a real job. It's a job that supplies the community. It helps the community. It feeds people. It's something that not everybody wants to do. And I feel like there's a lot of men that are fishing that [. . .] don't have fisheries that they can get a sufficient amount of money to provide for their families. [. . .] There are guys that are doing fine, but there's a lot more guys that are struggling.”

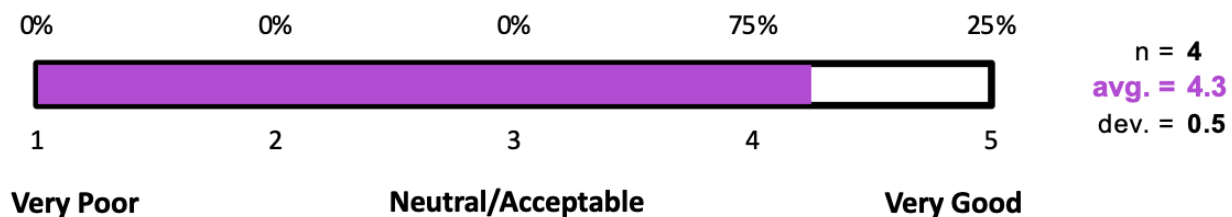
“I'm doing OK... I'm not getting rich. I have months where I'm behind, I have months where I'm doing OK, but I'm not stacking a bunch of cash, I'll tell you that. And I'm not buying a home. And we do struggle. And my wife works also and that's part of why we're OK. There would be times where if my wife did not work, we would not have been OK.”

"Costs compared to revenue is a huge one that leads me to 'Insufficient.' I mean, I make pretty good money, but I spend all my money trying to make that money, and other people who work hard - who drive garbage trucks or deliver mail - I feel like they make a sufficient amount of money... so we work hard and make an insufficient amount of money comparatively."

"I even pay my crew fairly well, like over the last couple of years fishing with me, they're making a pretty good wage. But the job they have to do is so physical and so demanding that I think it probably needs to be more, but there's only so much there, and the overhead is so astronomical... my bait bill is \$600 a day. I mean, that's my expenses... that's huge. So you've got to make some money."

"It's interesting: we as a country don't eat that much seafood, which is a problem, so we just need to eat more seafood, which I think would be great because it would create more opportunity for fishermen. But then again, the little bit of seafood that we are eating is coming from other places."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants indicated that while market diversity, reliability, and price in Moss Landing is good, there is still room for improvement.

- One participant highlighted that among the four focus group participants, three different buyers from varying markets in the Moss Landing area were represented in this conversation.
 - One participant felt these markets do a lot to support the fishing fleet and shared how several were created by members of the local fishing community.
- Several participants reported it is hard for fishermen to market their catch, particularly salmon and halibut, if they are not attached to a buyer.
 - One participant stated these fishermen, who often do not fish full-time, are likely to be more successful seeking out alternative market structures, like direct-to-consumer sales.
- Another participant believed there are sufficient marketing opportunities in Moss Landing, regardless of an individual's loyalty to a particular buyer.
 - One participant explained some individuals are loyal to a buyer while others may bypass their traditional buyer and sell to others to get a better price.
- A couple participants explained there are more options for fishermen to sell their catch than there were in years past, but wished existing local markets were strengthened and able to sell more product.
- One participant suggested markets are limited and prices are not as high as they should be because a lot of the seafood that is consumed is imported. One participant specified high lobster prices in Santa Barbara recently as evidence of the unpredictable nature of markets and price fluctuations in the fishing industry.

Participant Quotes

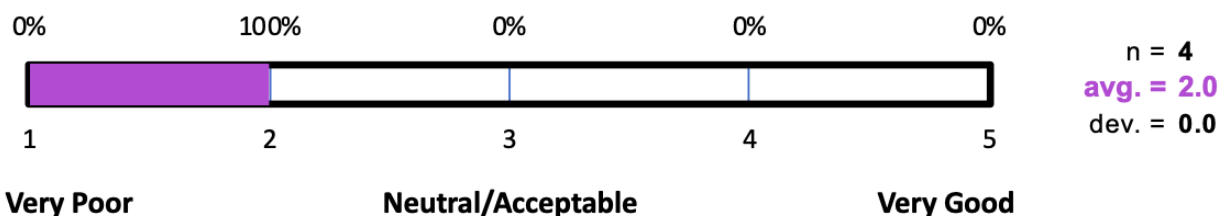
"I feel like we have a lot of good markets at Moss Landing. I feel like we got a lot of guys that really stepped up actually and created some very unique marketing systems: [name redacted], [name redacted]. I feel like we actually have a really strong market."

"If you're with a market, the market's great. [. . .] The part-time fishermen who are trying to sell halibut every once in a while or salmon sometimes - who aren't loyal to a market full-time - have a lot of trouble, especially when there's a lot of halibut or salmon on the market and everybody's catching them. It's really hard for an unattached guy to market his catch. He's probably better off direct marketing or figuring out some way to do it."

"I think if someone shows up to Moss Landing with fish, they're going to sell it and they'll probably get a decent price for it. [. . .] Guys are already starting to explore some off-the-boat stuff, and it's not to say we need more markets, but I am judging myself: I'd like to be able to buy and sell more fish. I'd like to be able to help more people. I'd like to be able to move more of the rockfish that comes across the docks and I think there's some more opportunity there to do better at creating healthier markets."

"The little bit of seafood that we are eating is coming from other places. So it's unfortunate because the majority of the fish that we're catching is not being given a price that's fair and a lot of it's serving limited markets."

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants rated the state of infrastructure in Moss Landing as poor, particularly because it is not accessible to everyone.

- Several participants reported the availability of key infrastructure is better for fishermen who are affiliated with a buyer compared to those who are not since buyers often provide supplies and services like ice, bait, and gear storage for their fishermen.
 - Another participant highlighted how out-of-town buyers passing through Moss Landing will offer a decent price to purchase fish, but do not reinvest in the port's infrastructure, thereby undermining the buyers who do.
 - One participant identified people who are willing to help support and improve infrastructure, but due to the low volume of catch within the port, there is little momentum to make these improvements.
- A couple participants emphasized the lack of a public hoist in Moss Landing even though, to their understanding, the port is legally required to have one. They stated that while the port contains several hoists, they are only accessible to those who work with a particular buyer; they

reported the last public hoist was recently acquired by a fishing buying company that does not allow fishermen to use it.

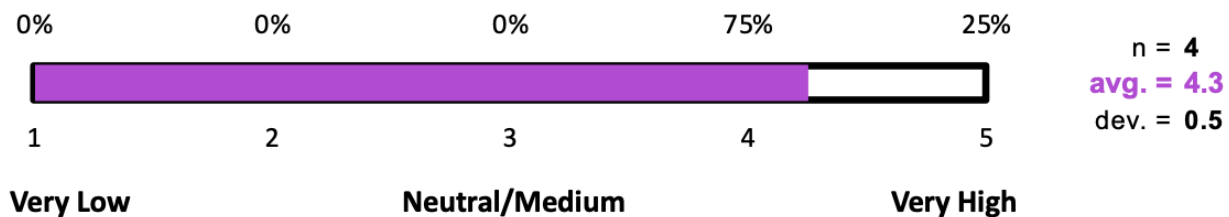
Participant Quotes

“The infrastructure that exists serves a limited group of people, mostly the people that attach themselves to a market, and for those that haven't attached themselves to a market, they're somewhat left on the fringes and having to cart their fish on the docks... they don't have ice, they don't have storage, they don't have bait. They don't have all the things that a healthy, working waterfront would have to support a diversity of fishermen businesses, not just the key businesses that exist here in the harbor right now.”

“The infrastructure is falling apart... it's very poor. And you do have good teams of people there willing to work, ready to work, but because of the lack of production on everything... you can't build a factory when you don't have any tomatoes to pack, basically.”

“One point that a guy was making recently in Moss Landing harbor is that there's no public hoist, which I believe he's told me there's a law which says every harbor needs a public hoist. And the supposed public hoist was taken over by another fish buying company, [name redacted], that moved in and apparently they're not letting anyone use the hoist, and it's the hoist that I've used for my whole life. People have asked me about it and I'm like ‘well, I've always used it... because it's a public hoist,’ but I guess now we can't use it. So I don't know what's going on there. If there's one note that I could make from this meeting is: call Moss Landing Harbor District and ask them about their public hoist because that would be nice for all the unattached fishermen to be able to use that which is critical for any fishing operation.”

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port's fishing operations?*



Discussion Summary Participants reported COVID-19 impacts on fishing operations in Moss Landing were disruptive, although the level of perceived disruption varied by participant.

- Several participants believed COVID-19 was only slightly disruptive because fishermen were able to adapt to pandemic-driven operating and marketing changes. A couple participants added COVID-19 was one of many recent issues fishermen have had to adjust to, which they addressed by incorporating COVID-19 safety protocols into their operations.
 - One participant indicated fishermen and the markets they rely on were successful in adapting to COVID-19 impacts and shared that the pandemic helped foster the public's understanding of fishing as an essential business and improved the public's perspective of the industry.
- One participant identified several immediate COVID-19 impacts, including the loss of overseas markets, delays in obtaining fishing licenses and permits, and delays in fishery-related

decision-making processes. However, they anticipated the long-term effects of COVID-19 on the fishing industry remain to be seen.

- One participant shared how they have been able to employ a high school-age crew member throughout the week as a result of online learning whereas before the pandemic, the crew member would only be able to work on the weekend.

Participant Quotes

“The fishermen and the markets have done a really good job at adapting and finding other markets for their fish, [name redacted] is an expert at the adapting market that we're dealing with. So it's been disruptive, but everyone's tried their best to keep working because fishing is an essential business. And I think now more than ever, people appreciate that. So I think that's kind of a silver lining of all this is that people are really getting closer to their essential businesses that really matter.”

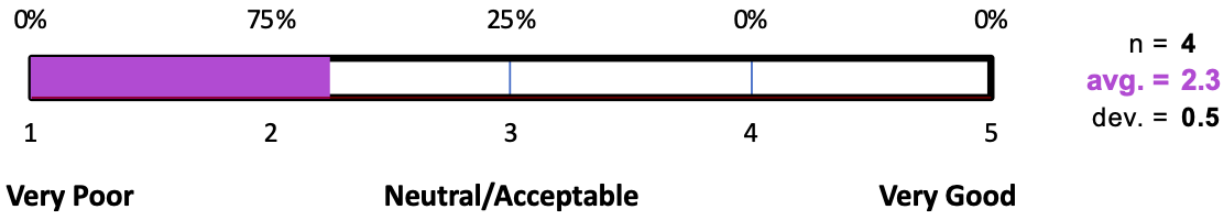
“I think for us, it [COVID-19] wasn't disruptive, it was validating; it sort of was like ‘oh, this is just a boost for us in terms of reinforcing all the things that we've already been doing all along.’ [. . .] Fishermen are some of - when given the opportunity - they're some of the best at adapting of all industries, I would say. And so there was a pretty fluid response in adapting to the situation.”

“COVID - it's hit us pretty hard as far as I don't think people really realize how it's hit, because I don't think we're really seeing the depth of it, because I think there's decisions that aren't being made or being put on hold that we don't even realize, like [the California Department of Fish and Wildlife]: you can't even get ahold of them... guys can't get licenses because you can't get ahold of them, guys can't get their permits paid because you can't get ahold of them. I believe some of the whale entanglement stuff has been postponed because decisions can't be made because of COVID. Personally, my eel market was shut down for four straight months because I had zero market because Korea got shut down. [. . .] And now Korea just went on shelter-in-place again. And I just went from doing four shipments a month to possibly one during December because of COVID.”

“My deckhand is a super avid recreational fisherman as a high school kid, and especially right now with COVID, remote learning has actually been awesome because I can pull him during the week when previously I'd only get to use him on the weekend.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Participants reported recruitment and retention of fishery participants is poor due to several barriers to entry for captains and a poor labor pool for crew. Fishery regulations, permits, port gentrification, and markets were identified as factors that tend to drive fishermen to leave the fishing industry as well as barriers to new entrants to fishing.

- Participants indicated longevity in the fishery is better for captains than it is for crew. They explained that a small number of people are willing to work in the fishing industry, both as captains and crew.
- Several participants specified that certain fishing permits make it difficult for people to enter the fishing industry because they can be expensive and availability is limited.
- With regard to longevity, a couple participants stated fishermen are inclined to remain in the fishing industry their entire lives because fishing becomes part of their identity. However, several participants explained longevity for crew is poor since crew members will leave and seek more lucrative opportunities within the fishing industry (e.g., on a larger boat with more capacity, purchasing their own boat and permits, etc.).
- Several participants shared how it is difficult to find quality crew members who are able to persevere through the difficult nature of the job.

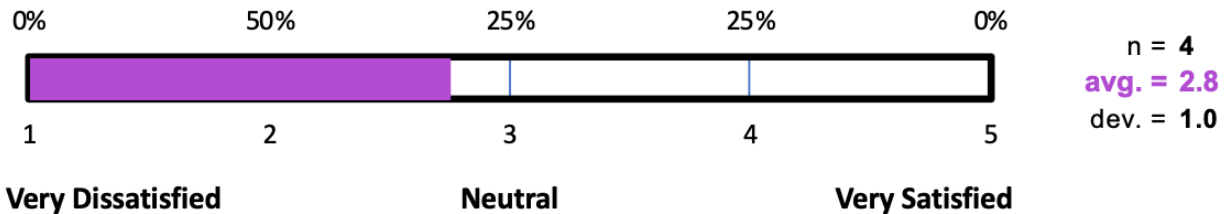
Participant Quotes

"I think the fishermen are more endangered now than the resource itself. And I think we could actually largely say that as an industry, as a whole, we're in a critical moment right now where all these other forces, including the regulatory management aspects, the gentrification of our ports, the markets that are driving the economies of our fishing industries... those are all things that I think are putting fishermen out of work and keeping new fishermen from coming into the industry. [. . .] And the permitting of all of our fisheries becomes a really significant barrier to entry."

"Once you're a fisherman, you're pretty much in for life. If it's what you love to do, you're probably not going to find anything else. And if you do, you're going to be miserable and you're going to feel like you've lost your identity. That's the only way I can explain it. I've quit fishing for a little while before and I felt like I literally had no identity: who am I if I'm not a fisherman? But as far as longevity for crew, that's not there. You're going through guys wide open. They're always looking for something bigger and better, and you can't blame them. They're going to go get on a bigger boat to make more money. They're going to get on a boat with more permits, more licenses."

"It's just very difficult to find talent [for crew]: reliable talent, hardworking talent, talent that doesn't get seasick, sober talent... you have to check all these boxes and it's just really hard. [. . .] You got to consider pools of talent that you wouldn't normally consider, and having to find a high school kid to help me out has turned out to be pretty good."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Participants generally like their jobs in the fishing industry but indicated the negatives tend to outweigh the positives, particularly as it becomes more and more challenging to adapt to fisheries management changes and participate in fishery policy efforts.

- One participant explained there is a wide range of responses to this question based on individual experiences.
- One participant stated they are satisfied with their job as a commercial fisherman because they are able to support a livelihood doing something that brings them a sense of purpose; although the job is stressful, being their own boss provides them with a sense of job security.
 - Another participant shared similar sentiments about fishing being a satisfying, fulfilling job. They believed the areas of dissatisfaction and stress in the job stem not from the work environment but from resource management decisions that affect nearly every aspect of fishermen's lives; as a result, fishermen must volunteer their time and energy to engage in fishery policy processes which can be challenging when they already work long hours.
 - One participant added that fishing has provided them with remarkable experiences but expressed concerns with the trajectory of the fisheries they operate in as a result of how the resources are managed.
- One participant shared how fortunate they feel to fish for a living, yet expressed sorrow for not wanting their child to pursue fishing as a career; they were uncertain whether they would be in a position to provide their child with the fishing permits they would need to start and maintain their business.
 - Another participant also considered themselves a lifelong fisherman, having entered the fishing industry with the intention of passing down their business to their child.

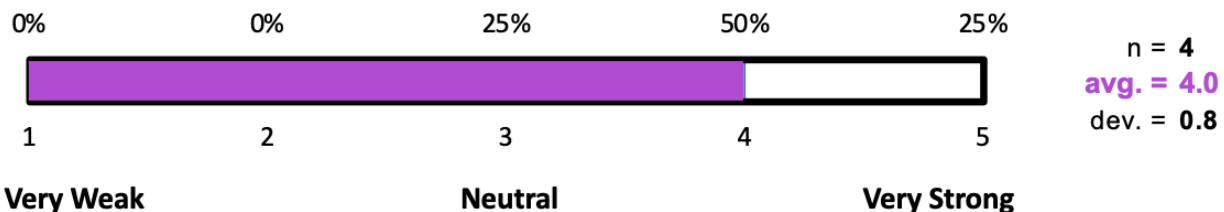
Participant Quotes

"I think there's a wide range, everywhere from people who are making a decent living like me and who feel like they have a great life. So I would say I'm very satisfied, even though it's a struggle and my stress is through the freakin' roof. I'm still satisfied with my job because I have a lot of fulfillment and purpose and I do have a secure job: no one is going to fire me... stress is high, but other than that, it's a good job."

"I think the dissatisfaction comes from everything that happens when you come to the dock. As we talked about, I think markets are pretty good, and so I don't think there's a lot of dissatisfaction there. But I do think from a regulatory standpoint and a management standpoint, it's challenging to follow the politics around which people are making decisions about your livelihood and your ability to feed your family or pay a mortgage. The fact that other people are making the decision and you're having to pay attention to it or participate in that - it's very stressful, very difficult. And you're adding that on top of a job that's already demanding 12 hours of your day, if not more. So it's a pretty heavy load that these guys are carrying. And I think the only reason why they would carry it is because on the other side of things, they're super satisfied with the life, the livelihood, and the decision to make fishing their living... I think it's more of a calling than anything else. It's just hard to summarize those opinions in one [score]... I really figured that if things were leaning one way or the other, you wouldn't have all these other issues, but ultimately I think everyone's living in a certain state of purgatory."

"I'm living the dream, man. When I was a little boy, my daddy asked me what I wanted to be when I grew up and I told him 'a commercial fisherman.' I said that since I was five years old, and I'll still say it. But the sad part about that is [. . .] I intentionally keep my son away from fishing, hoping that he will find something else. And I admire what [name redacted] does: [. . .] he's one of the best fathers I know and [he] is in a position to where he's going to have those permits, his boy is going to have a great way to go fishing. But I don't know if I can do that. I don't know if I'm going to be able to put my son in a position where he's going to have those permits, those licenses, those things. I don't know if I'm going to be able to pull that off the way things are going."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants explained social relationships among Moss Landing fishermen are strong. Several participants indicated that while fishermen are united and care for one another, engagement within the port can be better.

- A couple participants reported fishermen in Moss Landing work effectively together regardless of differences in opinion, but believed participation and leadership within the local fishing associations could be improved. Another participant stated this is similar to ports across California, where camaraderie among fishermen is high even though engagement in local port associations could be improved.
 - One participant attributed poor engagement of fishermen in Moss Landing to the fact that there are few fishermen in the port, difficulties in scheduling meetings due to competing schedules, and other organizational and logistical challenges. They believed relationships are stronger in ports where there are older fishermen who are close to

retirement and have the time to help organize and engage in policy and regulatory issues.

- One participant recalled social relationships being stronger in years past than they are today because fishermen were not sorted into different fisheries and fished all fisheries under a single permit. They suggested that the current permitting process has weakened relationships, resulting in strong relationships within a particular fishery and weak relationships between fisheries; however, they acknowledged that both types of relationships are needed for a strong fishing community.

Participant Quotes

"I think that the fishermen work really well with each other in our port; we had a recent crab meeting and there's a wide diversity of opinions, but everyone was able to come together and talk and understand each other's opinions, and that was a cool example of the fishermen working together very well. The one thing, though, is that we could use more organization and leadership [. . .] whatever that may be: some type of port association or more participation in our port association, which is lacking."

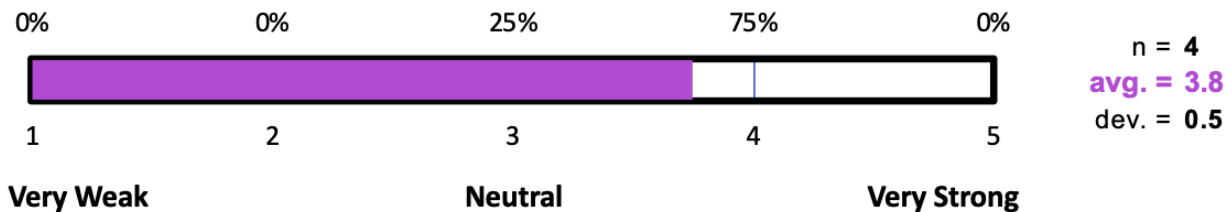
"I travel a lot up and down the whole coast and participate in a lot of fisheries and [. . .] any time I'm going into another port, fishermen are fishermen: [they] stand by each other. That's the way it is. There's always a bad apple, don't get me wrong. There's always room for improvement, especially in ports and organizations and getting information and basically getting everybody together... it's pretty hard to get a bunch of bosses all together in one room because that's exactly what we are: we're just all bosses."

"My frame of reference is more formal, sort of like fishermen associations, and we really just don't have an effective one here or I don't know if it's even operational, honestly. But I do think the way in which fishermen are organizing is more outside of the port and more associated to other ports and other fisheries that they're involved in, so that's more indication of participation at a broader level. But within the port, there's just not a lot of fishermen and collectively not a lot of time and competing schedules, families, differing fisheries, all of those things that just make it really difficult for fishermen to organize here. I think in a lot of healthier ports, you have a much older generation that is engaged in the organizing, because I think they're either retired or trying to foster and maintain those healthier fisheries and they somewhat have the time because fishing isn't taking as much of their time and energy; they don't have the kids, little toddlers running around. I imagine these ports of just older [fishermen] who are keeping that thread through the community alive, but we just don't really have that here in Moss Landing."

"I went with 'Neutral,' and the reason I did wasn't because of the way things are now, but because I know how things used to be [. . .] At this point, I feel like it's not the fishermen's fault, it's just the lack of guys, and we're so separated. You got crabbers, you've got eelmen, you've got salmon guys. Before, everyone was united more and we had more of a united goal because everybody jumped from fishery to fishery together. You had a salmon season and everybody fished salmon and they were all united in that. And then when albacore came, everybody went north and went albacore fishing, and albacore is a different beast: it unites guys in a different way because you depend on each other in a way that no other fishery does [. . .] I know what it

could be if we got our fisheries back and if we all united together. And as far as port support, fishermen need to stick together, and I believe the crabbers are sticking together, and I believe the salmon guys are sticking together, and I believe that the fisheries, the independent fisheries, are sticking together, but they're not united as one whole. And the only chance we have in this battle is to unite as one whole together because we can't throw each other under the bus anymore. We have to figure out a way to see eye to eye all together."

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants indicated Moss Landing's relationship with groups outside the fishing community is strong because many local fishermen participate in fisheries policy processes (e.g., the Dungeness Crab Fishing Gear Working Group, Salmon Council).

- A couple participants explained that because fishery management decisions often directly affect fishermen's livelihoods, fishermen in the port recognize the value and importance of their participation in policy meetings and discussions.
 - One participant estimated about half of the local fishing fleet participates in some kind of fisheries-related policy process and would welcome more participation by fishermen.

Participant Quotes

"The strength of the port's relationship with external groups, I would say, is strong. I mean, there's myself and now [name redacted]: we've both been a part of the Dungeness Crab Gear Working Group, and a lot of people have tried their best to be involved as much as they can, including [names redacted]. And so, that could almost be considered very strong, I guess, but it could be better also. But yeah, the key players who have their life on the line here are definitely engaged."

"I think we have a lot of examples of active fishermen who are involved in the policy process, whether it's these conversations with the Dungeness [Crab Fishing Gear] Working Group, the salmon folks... I mean, there's just a lot of people who understand that the future of our fisheries is determined by and depends on our participation in policy and so I think we have, especially as a proportion of fishermen, you could almost say that 50 percent of fishermen in this harbor are active (if not more) in some sort of policy process or government process... might not be that high, but it's really significant. I think people really care and they know that it's important to be doing this, to be talking to [Monterey] Fisheries Trust, to be working with the Dungeness Crab [Fishing Gear Working] Group, just to make themselves heard."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants elaborated on the infrastructure discussion summarized on page 9.

- One participant shared the belief that the fishing infrastructure both in Moss Landing and across California ports is lacking; they stated that compared to years past, infrastructure is no longer sufficient to support fishing operations.
 - A couple participants reiterated the need for a public hoist in Moss Landing harbor; one participant also suggested ice be free for all Moss Landing fishermen.

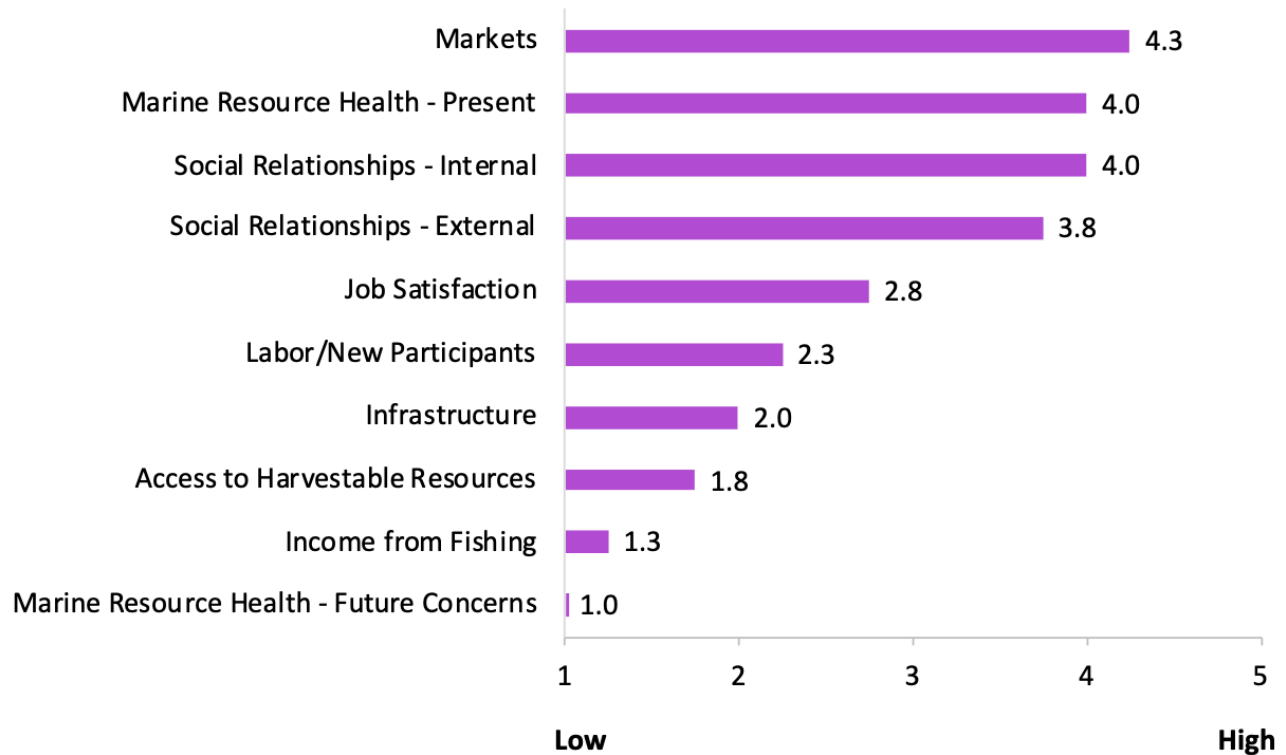
Participant Quotes

"Public hoist, and free ice for everybody."

"The infrastructure - definitely, there's room for improvement. I don't know any port that there isn't right now, and it used to be - it wasn't too long ago - any port you went into, there was always the infrastructure to keep you going. And it's pretty much fallen apart up and down the whole coast. Like I say, I travel up and down the coast. There's only a couple of ports that I could see on the whole West Coast that could actually handle it and even then, you could be put in line to wait, but you'll eventually get what you need so you could keep going. But some of these ports, California being the worst, can't keep up with any influx of vessels coming into any one spot."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

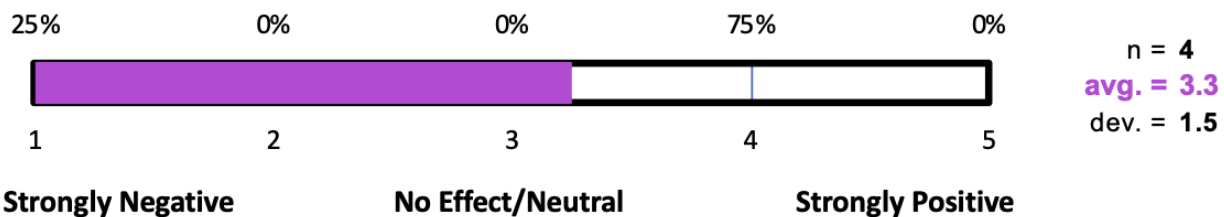
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants shared a range of perspectives with regard to MPA impacts on marine resource health, from positive to negative, and some participants felt MPAs have had no effects at all on the health of marine resources.

- Two participants reported not noticing a difference in marine resource health, positive or negative, related to the MPAs. However, one participant believed that by closing an area to fishing, MPAs are bound to have a positive effect on marine resources. Even so, they did not

think the MPAs should have restricted fishing activity to the extent that they do, and suggested MPAs be occasionally opened to fishermen.

- One participant believed MPAs have helped to improve the health of several groundfish species, including shallow nearshore rockfish, but also suggested the MPAs be rotated periodically to improve fishing opportunities; they recommended research be conducted to help inform how to effectively incorporate MPA rotation into management.
- Another participant shared the perspective that because the MPAs cover mostly groundfish habitat that supports older fish with a low spawn rate, fishing activity is needed to harvest the older fish which would allow juveniles to populate these areas and better contribute to the overall population abundance.
- One participant believed there is an abundance of fish, particularly lingcod, in the MPAs. They expressed concern about excessive lingcod predation on juvenile rock cod in the closures.
- One participant shared their understanding that the MPAs were created to protect rockfish, yet some MPAs restrict salmon fishing. They believed this is due to the possibility of rockfish being caught as bycatch, but suggested MPA regulations be changed to allow salmon fishing in all MPAs because incidental catch of rockfish is no longer an issue since stocks have been rebuilt. In addition, they stated salmon fishing in the MPAs could help provide a better understanding of rockfish bycatch in the salmon fishery.
 - Another participant shared similar sentiments with regard to eel and Dungeness crab in which bycatch is seldom caught in the gear for these fisheries and should therefore be allowed in the MPAs.
- Several participants shared the belief that MPAs lead to greater fishing pressure in smaller areas, resulting in decreased resource health outside the closures.
 - One participant explained that prior to MPA establishment, they would rotate the areas they fished to allow the resource to replenish. However, because the MPAs decrease the area available for fishing, they are left with fewer fishing grounds, increasing the likelihood of overfishing in the remaining open areas.
- Several participants explained that MPAs cause fishing pressure to be concentrated in smaller areas along MPA boundaries, creating barriers of gear that increase the risk of whale entanglements in fishing gear. They believed without MPAs, fishing pressure would be more spread out, leading to fewer instances of whale entanglements.

Participant Quotes

"I haven't seen a positive anything come out of these areas and zones. I haven't seen populations of rock cod flourishing, other fishes flourishing, other sea life flourishing."

"If you shut down the whole entire ocean, of course there's going to be a positive effect to the population of fish in it. So, I mean, you can't really deny that [the MPA network] had a positive effect on the population, but was it necessary to the extreme they took it to? I don't think so. Do they need to open these areas up periodically? I think so."

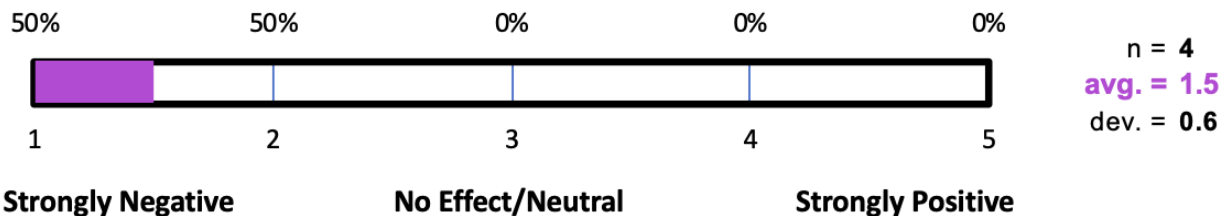
"I don't think there should be any closures for salmon. I guess they're really concerned that you could possibly get a rockfish, but I feel like the levels that rockfish are at at this point... I don't think we should necessarily be concerned with a few incidental catches. And then if we would change some of the laws to where guys could bring some bycatch in, then we would have a

better idea of how much is being caught with salmon anyway. So I'm not sure that MPAs are accomplishing anything by keeping salmon fishermen out of those areas."

"I think what ultimately ended up having to happen was that the few areas that were actually viable for fishermen to fish ended up sustaining a lot more pressure than they would have otherwise. And so you sort of are weighing these pros and cons between the existing effort with all the people that were fishing dispersed across the ocean with less fishermen fishing in more targeted areas. Now, the areas in the MPAs, yeah, I'm sure they're great and beautiful and pristine. And that's, I think, what a lot of folks are going for. But I think the externalities associated with fishing on the lines, having to heavily target a few areas that are viable, could result in some pretty negative impacts."

"I think that [the MPA network] is a huge contributing factor to whale entanglements, especially in Dungeness crab gear. I mean, I've seen examples of the situation myself. [. . .] It's not just a theory, it definitely contributes to walls of gear being drawn in the ocean, whereas without that line drawn there, the gear would be dispersed and potentially the whales could migrate and not have that wall of gear that they're running into. [. . .] You don't need an MPA for anywhere that there's Dungeness crabs because Dungeness crabs are going to reproduce and have a fluctuating level of biomass anyways."

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary Participants reported MPAs have had a number of negative impacts on fishermen's livelihoods, including decreased ability to fish historically important grounds, loss of income, and less participation in the local commercial fishing industry.

- One participant recalled that during the implementation phase of the MPAs, fishermen anticipated negative impacts from the MPAs. Those concerns were validated as fishermen are now experiencing increased crowding and competition along MPA boundaries resulting in resource depletion and increased risk of marine life entanglements in fishing gear (see page 19).
- Several participants shared that MPAs have negatively affected fishermen's ability to support a living from fishing.

- One participant reported that despite the positive MPA ecological outcomes discussed on page 19 (i.e., with respect to rockfish), fishermen must travel further distances to fish, resulting in increased operational costs. They explained that the preferred fishing spots that historically contributed significantly to their landings and income are no longer accessible.
- Another participant experienced a decrease in revenue due to diminished quality and quantity of their product. They explained that because fishermen are unable to rotate the areas they fish as a result of MPAs, they must consistently target the same area which hinders the resource from replenishing.
- One participant believed that even if rockfish quota is increased and a fisherman can supplement their income with another fishery, there are still not enough fishing grounds to fully realize the quota and sufficiently support a fisherman's livelihood because MPAs limit the options to be able to access multiple fisheries. They stated fishermen are no longer employing fishing practices that harm fish stocks and caused the need for MPAs; therefore, they suggested MPAs are no longer needed and the closures should be reopened and/or allow fishing activity.
- One participant found it difficult to rate this question due to the shifting magnitude and type of fishing impacts since the MPAs were implemented. They stated MPA impacts likely resulted in some individuals leaving the industry, thereby consolidating the fleet because of the lost access to traditional fishing grounds. However, they expected the MPA impacts would be more positive in the years following implementation because resources should have improved under MPA restrictions and fishing opportunities should have increased with a smaller fishing fleet.
- One participant requested managers consider the tradeoffs between the positive MPA ecological outcomes and the negative impacts of MPAs on livelihoods.

Participant Quotes

"When we started the MPA process back in the day, we said there was going to be problems any time we created lines and boundaries... we didn't know what they were, and they ran with it anyway. Well, now that we have these lines and boundaries out there, what has happened? It's actually contributed to whale and marine mammal contact with gear: what happens is the last place you can catch something is right up against these MPAs. You'll fish other areas [. . .] but still, you'll fish right along these edges, creating an impassable barrier of fishing gear. If it's not crab, it's something else. You're actually overfishing these small spots, which become depleted."

"I've got to run way further to get to the fish, the quota that I'm allowed to catch. Landings are down because I used to be able to fish for shallow nearshore rockfish in spots that were more protected from the weather, and so I could fish way more days. Therefore, if my cost is up and my landings are down, my income is down. So [MPAs] affect my income. And I'm not sure if it really affects the number of participants in the fisheries that we have around here. I mean, I could see how that could be a big factor for the lobster fishery or sea urchin fishery. But here, it makes it tougher: you have to go further to get to good fishing spots, and mainly the loss of my favorite fishing spots that I could fish when the weather was bad has negatively affected my income for sure over the years."

"As a fisherman, I go and I'll fish in an area and then when that shifts and I see my production level go down or the actual product quality change, then I'll move just to protect my resource."

And then move into another area and get better product and contact a bit more resource and let that area come back and then I'll go back to another area. Now I've confined it to one little spot. So I actually wind up overfishing it to the point where the quality won't be there or the quantity won't be there, and therefore I have to just fold it up, move on, go do something different. [. . .] You can only farm the same plot of land with the same thing for so long and then you don't have anything there."

"We can't obtain the areas we need to access to fish. Realistically, there really is nowhere to fish. We keep telling them the same thing: yeah, you're giving us more quota - I mean, honestly, the quota, if I was able to fish my eel fishery and supplement that with the amount of quota that they're allowing us to catch at this point, that's a pretty good subsidization of my income, like it would be a pretty good amount of money that I could make off of that allowed quota they're allowing me at this point. But it's really not accessible."

"I'm thinking about the initial impact, which I think was very significant in terms of cutting the fishing fleet into a much smaller fraction of what it had been previously. So that was devastating for a lot of people. But then the people that were able to maintain and continue on making a living... in theory, now with a lot less effort in these protected areas, you should have more abundance, which then it actually, in turn, should actually have yielded a positive result in terms of protecting the resource, to getting more access to the few remaining fishermen that are around, and allowing them to potentially have a better outlook than previously under an 'overfishing/the whole ocean is open' scenario... but it's not like the whole ocean is fishable."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants identified MPAs that have negatively affected Moss Landing fishermen, especially those who target Dungeness crab and salmon. One participant believed decision-makers were methodical in their placement of the MPAs, having considered certain bottom structures for MPA locations which were also the areas that supported the most productive fishing grounds. They believed the resource would benefit if fishermen were allowed to fish in these MPAs, rotating the areas they target to allow the resource to replenish. Another participant shared that because they entered the commercial fishing industry after the MPAs were implemented, they have not experienced the same effects as other participants but recognized the significant loss of access as a result of the MPAs.

- *Participants identified a number of North Coast and North Central Coast MPAs that were traditionally valuable fishing grounds, including South Cape Mendocino State Marine Reserve (SMR), Mattole Canyon SMR, Big Flat State Marine Conservation Area (SMCA), Double Cone Rock SMCA, Point Arena SMCA, Point Arena SMR, Bodega Head SMR, Point Reyes SMR, and Montara SMR.*
- Participants conveyed thoughts and experiences with North Coast and North Central Coast MPAs:
 - *North Farallon Islands SMR:* One participant shared how this MPA is very impactful for

several fisheries, including Dungeness crab and salmon. They estimated losing over \$100,000 in income from salmon fishing over the last decade due to not being able to access the area. They explained there is an abundance of salmon around the North Farallon Islands due to ocean conditions in the area.

- *Stewarts Point SMR*: One participant stated that the MPA does not protect any important fisheries, as most of the valuable Dungeness crab and salmon fishing traditionally occurred outside that area. However, they explained that the MPA boundary creates a concentration of gear that increases the risk of whale entanglements.
- *Salt Point SMCA*: One participant believed this MPA was created in response to a complaint from a resident nearby who was bothered by Dungeness crab fishermen since the MPA would deter them from working in the area.
- *Bodega Head SMR and Point Reyes SMR* were identified as MPAs that pose a risk to whale entanglements due to high levels of Dungeness crab gear along the MPA boundaries. Participants also reported seeing fishing activity inside the *Point Reyes SMR*.
- *Southeast Farallon Island SMCA, Southeast Farallon Island SMR, and Southeast Farallon Island Special Closure*: One participant shared their experience having to fish for Dungeness crab outside state waters because of the Southeast Farallon Island MPAs.
- *Saunders Reef SMCA*: One participant reported not experiencing impacts from this MPA.
- Participants discussed the impacts of more local MPAs:
 - *Año Nuevo SMR*: One participant reported this MPA has negatively affected the Dungeness crab and salmon fisheries and recalled fishing here often for salmon because of good upwelling conditions.
 - *Soquel Canyon SMCA and Portuguese Ledge SMCA*: Several participants stated these MPAs encompass very productive spot prawn and groundfish habitat.
 - One participant mentioned how the designation of the Soquel Canyon SMCA led a fisherman to sell their spot prawn permit and leave the fishing industry because they could no longer support their livelihood due to the loss of fishing grounds.
 - One participant questioned why spot prawn fishing is not allowed here while it is in the MPAs near Carmel Canyon. Another participant stated spot prawn fishing is allowed in the Carmel Canyon MPAs because fishermen requested this exemption during the MPA implementation process.
 - One participant suggested the state consider a similar exemption for Dungeness crab fishing in the Soquel Canyon SMCA, and other MPAs that pose a risk to marine mammal entanglements. They believed that in doing so, fishermen would not harm the rockfish populations the MPAs are designed to protect.
 - One participant suggested the Soquel Canyon SMCA be opened to the eel, spot prawn, and Dungeness crab fisheries to provide fishermen with more opportunities to rotate the fishing grounds they target.
 - *Asilomar SMR*: Participants explained that this area provided safe fishing grounds for nearshore rockfish fishermen during poor weather conditions, and its presence increases fishing pressure in smaller areas near Pebble Beach.
 - *Point Lobos SMCA and Point Lobos SMR*: Several participants reported these MPAs

concentrate fishing along the MPA boundaries and don't provide any protection for important fisheries (e.g., rock cod). Another participant stated Yankee Point, located inside Point Lobos SMR, was among the best spots for shallow nearshore rock cod fishing.

- *Point Sur SMCA and Point Sur SMR*: One participant recalled these areas being great for salmon fishing, particularly in shallow waters along the reef's edge. Another participant believed allowing fishing in these MPAs would relieve the fishing pressure in surrounding areas while also not negatively affecting the resource inside the MPAs; they added how this area is among the best rockfish breeding grounds along the California coast.
- *Big Creek SMCA, Big Creek SMR, Piedras Blancas SMCA, and Piedras Blancas SMR*: One participant stated these are productive salmon and Dungeness crab fishing grounds.
- *Point Buchon SMCA and Point Buchon SMR*: One participant reported these MPAs provide valuable, nutrient-rich habitat for salmon, Dungeness crab, and whales. They stated the MPAs create an increased risk of marine mammal entanglements because fishermen concentrate their effort along the MPA boundary.

Participant Quotes

"That Stewarts Point MPA [SMR] goes out three nautical miles. You can't salmon fish, you can't crab. It's over sand bottom... it's really not protecting anything. There is good crabbing in this whole area and this one causes a major concern for whale entanglements. [. . .] There's guys that literally lay an impassable fence all the way around this MPA. I can't even drive through it with my boat, and I go slow [. . .] It's horrible."

"One of the historical guys that actually was prawn fishing here in Monterey Bay, he retired and sold the permit just because when they put that MPA in [Soquel Canyon SMCA], he goes 'my livelihood's over.' And he got out of the business."

"There's a clause in the Carmel Canyon MPAs that you're allowed to fish spot prawns. Maybe the MPAs that pose entanglement risk to whales could be allowed to fish Dungeness crab in those MPAs. There are MPAs that are closed to other things but are open to Dungeness crab [. . .] So it's not impossible just to write within the MPA's regulations that you're allowed to fish Dungeness crab, and that would solve that entanglement risk for that particular MPA: [. . .] the Soquel Canyon MPA [SMCA], that one not being there wouldn't cause any harm to the rockfish population that MPA is trying to protect. And it would ease up the whale entanglement risk."

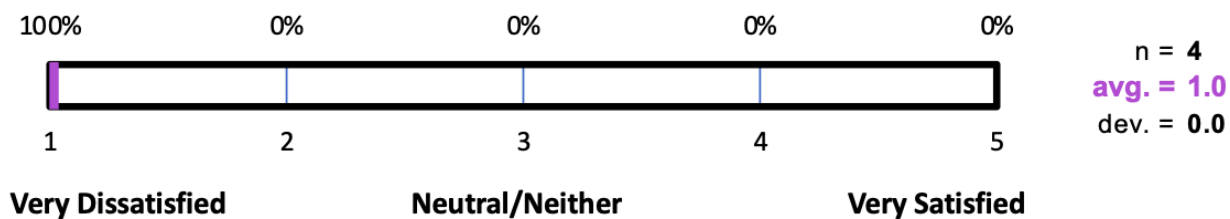
"I've been affected by the ones in the Bay [Monterey Bay]. I fish the south side right now for eels, [. . .] and I try to move around before [my fishing grounds get] down to a level that I'm even noticing that it's starting to change because I feel like if you leave an area before you notice it starts to change, the rebuild of it is really fast with eels. I can see it subtly start to decrease and I can leave and within a year, I can go back and it's 100 percent normal. But the Soquel Canyon [SMCA] forces me to have to drive almost 14 miles up there, where[as] that whole area is just amazing grounds for eels and shrimp, crab, all of those fisheries. I literally could probably spend three years in that area and never touch the population of eels. [. . .] And I just don't see the logic in keeping them [Monterey Bay MPAs] closed for certain fisheries."

“There's just so much good fishing in that Point Sur area, so I see why they took that as an MPA because that's probably one of the best rockfish breeding areas anywhere on the coast. But that would be an area that you could open up for two months, every two years or something like that in order to stabilize whatever populations are out of balance.”

“Point Buchon SMCA is horrible for crab and salmon. Absolutely horrible. This is a major point with fairly deep water coming close. You have a lot of nutrients and stuff coming up in there. The whale population, marine mammal population is phenomenal right there. And the guys will do the same thing around this Buchon: they'll just lace it up to make an impassable fence.”

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants were very dissatisfied with MPA management, and highlighted their concerns about the MPA implementation process and the perceived lack of current management.

- One participant shared the perspective that MPA designation was unnecessary since efforts were already underway to protect groundfish species when the MPA implementation process started.
- A couple participants shared their perspective that MPA management is nonexistent and that the state does not have adequate funding to successfully manage the network. They believed MPAs were designated for the sole purpose of a “land grab” and restricting fishing and have done more harm than good for fishermen.
 - Another participant identified the lack of funding for MPA management, monitoring, and enforcement.
- One participant expressed frustration with regard to the process to select MPA locations. They recalled fishermen being asked to disclose their fishing spots with the promise of helping to look at alternative areas for designation, but MPAs were placed on valuable fishing grounds.
- One participant compared MPA management in California to that in other countries and believed it is relatively better, but stated more needs to be done to improve management of the MPA network.

Participant Quotes

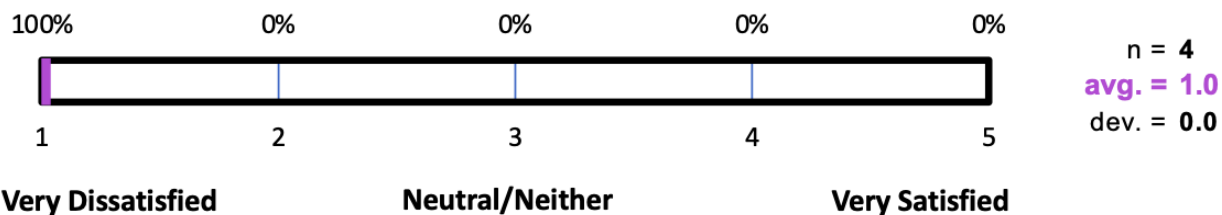
“The management [has] just been a ‘close it down and do nothing’ [scenario]. That's pretty much what we've seen. We're seeing a little bit of baby steps right now, but it was pretty much shut her down and do nothing.”

"Just a general kind of feeling amongst fishermen that they don't have any funding to do any of this."

"When they shut these areas down, they used the data that the fishermen gave them. And they literally collected the data and got the waypoints where people caught fish, and they shut the areas down where all the fish was caught. You can't tell guys they can go fish halibut, but they can't go in the sand, and you can't tell guys they can go fish rock cod, but they can't go into the rocks. So like I said, of course it had a positive effect on the population. Did it need to be that extreme? I don't think so. And did you need to shut the whole ocean down where there was fish? I don't think so either. [. . .] They actually told them where to drag and told them where not to drag. I mean, there's more to it than just that, but..."

"From my perspective, just in terms of what's being done here, it's probably better in terms of what's being done in other countries. So from a relative standpoint, I would say that these systems are in place - yeah, they can be improved in a lot of ways, no doubt - but I just think about some other places that put MPAs in place and they really have zero monitoring, zero enforcement, all these things. So, that perspective, I think, is important to consider. But in terms of all the things that these guys are talking about, I totally agree."

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants were very dissatisfied with MPA monitoring because they have not seen any MPA monitoring data or results.

- One participant suggested better communication is needed to demonstrate to fishermen that the MPA network is actively being monitored and managed as opposed to simply being areas where they cannot fish. Another participant attributed poor communication of results and an overall lack of MPA monitoring studies to budget constraints; they believed managers have the capacity to conduct MPA monitoring, but are limited in their communication of the monitoring information by lack of funding.
- Another participant reported data collection is poor, particularly in the rockfish and eel fisheries. They believed that without research, managers do not have the information they need to adequately manage the fisheries, including potentially reopening MPAs to fishing activity.

Participant Quotes

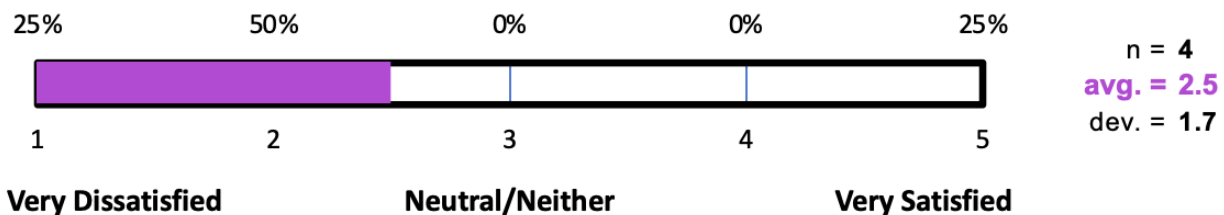
"I would like to see data on the monitoring of the MPAs [. . .] Everyone has a theory that the MPAs can harbor older fish, which can have more babies, and therefore the fishing areas will be better fishing. But that's just a theory unless it's been scientifically proven. Maybe it has, but I'd just like to see more outreach from whatever monitoring that they are doing. I think that would build trust with me at least, and just make me feel like they're actually caring about all these

giant closed areas that they made and not just creating 'em and enforcing the fact that you can't do anything there."

"They haven't had the finances or the means to actually do the monitoring of the MPAs except for what they can see from the beach. That's what they like to do, is go 'well, yeah. From the road, yeah, there it is.' That's not... that's what I was going back to earlier: it was just a land grab. There were stipulations in this land grab that you had to produce with it; they've done nothing. They've done absolutely nothing. [Results] haven't been communicated, but I haven't seen it. I've been involved in one of these processes. I have yet to see any data to come across in front of me when I ask the questions 'what data do you have to support these accusations that this is what your piece of real estate is doing?' Absolutely nothing. Zero. 'Well, we don't have the funding' - I get that a lot. Ok, well, if you don't have the funding, why do you have this? It's like having a car you can't afford to put gas in."

"I don't see much research at all. In fact, I was asked by [the California Department of Fish and Wildlife] six months ago to go out and fish rockfish because they didn't have enough data to properly regulate the fisheries. And they said that they couldn't release quotas because they didn't have enough information to suggest that the populations were high enough to release quotas. So if they're not doing their job to collect data properly to properly manage the fisheries, then how are we ever going to get to a point where we're going to open these places up? I've been fishing eels six years and the guy's job - there's one guy that his sole job is to collect data on hagfish - he's checked my eels four times in six years. That's how much data he's collected on the population of hagfish."

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants shared various perspectives with regard to MPA enforcement, from very dissatisfied to very satisfied.

- One participant suggested that while MPA enforcement is effective at enforcing MPA rules and regulations along MPA lines, it takes away from other, non MPA-related enforcement activities.
- Several participants believed enforcement of the MPAs is better than MPA management or monitoring. One participant agreed, but also indicated that MPA enforcement lacks the capacity to cite all MPA violators.

Participant Quotes

"I feel like the enforcement of it has been not good because that's all they focus on, like literally, I watch [the California Department of Fish and Wildlife] leave the harbor and just bee-line it for those lines. They go up and down those lines all day. I literally drove into the MPA, across the MPA last year and there was 20 pots a half a mile in the MPA and I watched [the California

Department of Fish and Wildlife] go up and down the line, around the line two times and then drive back in. So they're so focused on this line that they're literally forgetting that there's a whole other ocean out there of sport fishermen, crabbers with 60 fathoms of rope in 30 fathoms of water. There's all other kinds of things they could be focusing on other than just that. So I think it's distracted them slightly on the whole other rest of the ocean. And now all they're focused on is just this one little spot."

"It seems like enforcement is the best [between MPA management, monitoring, and enforcement]. They're enforcing it."

"As far as enforcement goes, enforcement's just doing their job. [. . .] Now, if somebody is breaking the law within the deal, which I've seen several times, and guys get away with it... enforcement's spread thin and light, too. So is it being completely policed like a stoplight with a camera on it? No, it's not. But they're doing the job to the best of their means."

19. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants shared final thoughts related to the current state of MPA management, decision-making, and MPA access.

- One participant believed a dynamic environment like the marine ecosystem requires a dynamic approach to management, but that the current approach to MPA management and fisheries management more broadly is too static for the system.
- One participant stated decisions that affect the fisheries, including the creation of MPAs and other area closures, should be made by state and federal management agencies alone without the influence of other special interest groups.
- Participants asked that the Elkhorn Slough SMR and adjacent Kirby Park be considered for reopening to allow fishing activity.

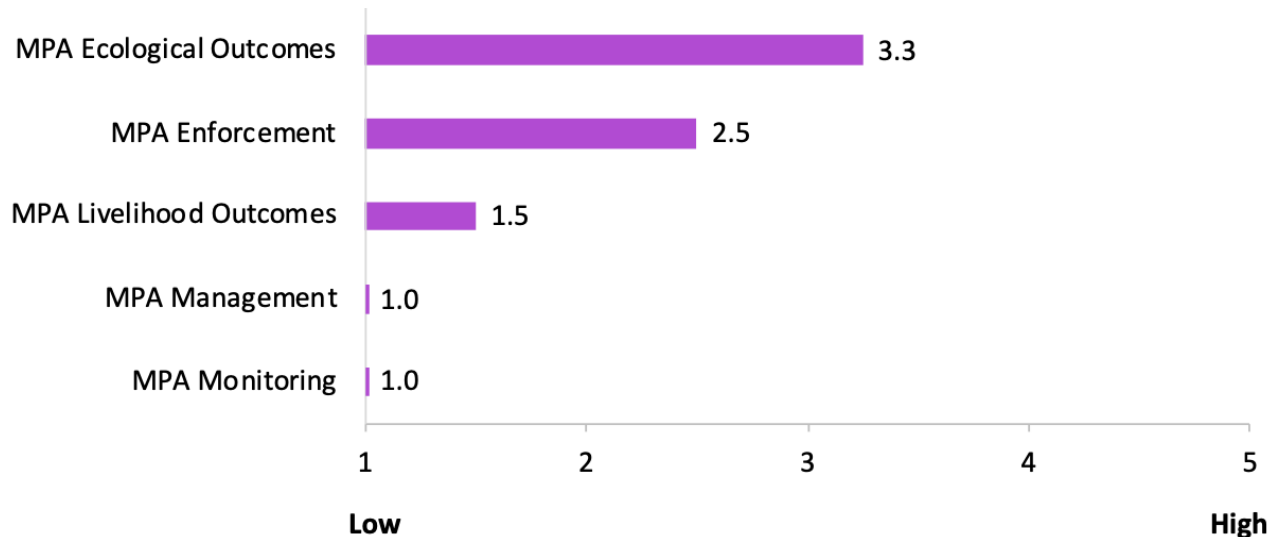
Participant Quotes

"The ocean is arguably one of the most dynamic environments on the planet, and it's being regulated in a very static way. And I think there's a giant mismatch between how much the ocean changes day to day, week to week, month to month, year to year, and the need for management strategies to be much more adaptive and dynamic in that way. And I know that is a giant ask of managers and policymakers, but I think it's imperative; I think it's essential. The environment's changing much faster, given all the other forces in the world."

"The Elkhorn Slough MPA [SMR] goes too far back and Kirby Park should be open. [. . .] We want our shark derby back."

"Every year, we would have a derby where guys would go back there [Elkhorn Slough/Kirby Park] and fish and whoever got the biggest stingray or shark won the derby... it's all over because you can't go back there and do anything anymore."

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?

20b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

20c. Process Open-ended Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?

Discussion Summary (Due to time constraints during the focus group, participants were not asked these questions, and so did not provide ratings or discuss their responses.)

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network

Members of Morro Bay - Port San Luis's Commercial Fishing Community

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Morro Bay - Port San Luis

Date: Thursday, October 29, 2020

Participants: Jesse Barrios, Bill Blue, Tom Hafer, Bob Maharry

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

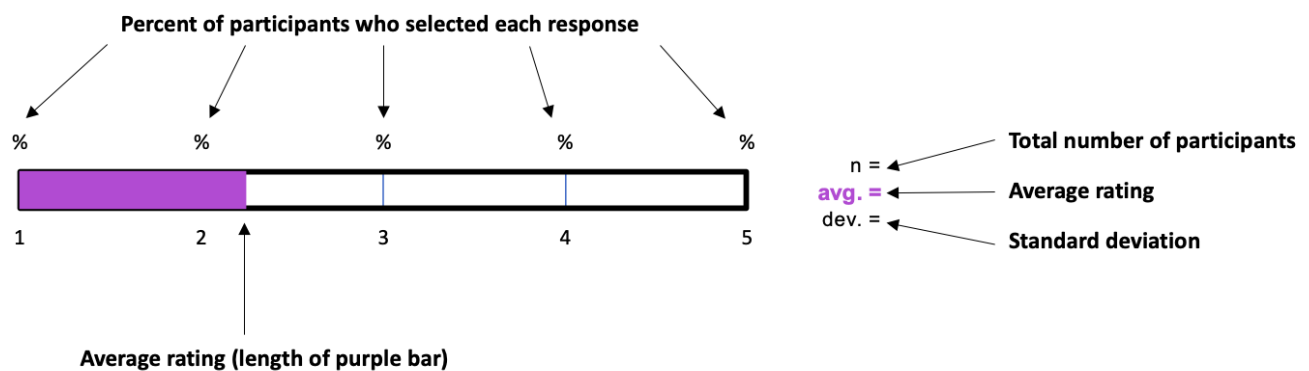
Overview

On October 29, 2020, four commercial fishermen operating out of Morro Bay - Port San Luis participated in the eleventh focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 15 and 24 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

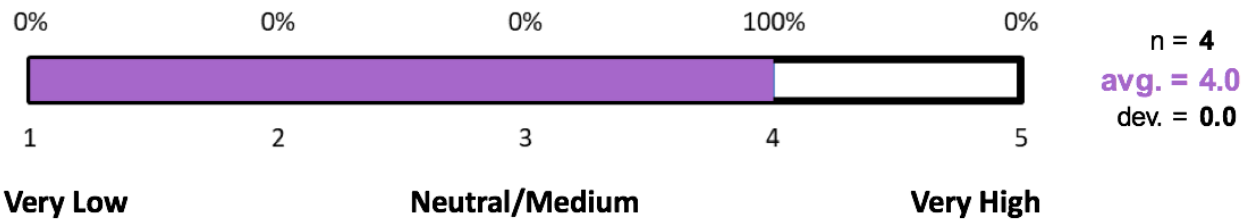
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: Central Coast](#)
 - [Summary of Results from Baseline Monitoring of Marine Protected Areas 2007–2012, Central Coast](#)
- [Marine Protected Area Monitoring Program, 2019–2021](#)
- An article about Governor Newsom's [Executive Order related to protected areas and the 30x30 initiative](#)

Our Project Team would like to express our appreciation to the four Morro Bay - Port San Luis fishermen—Jesse Barrios, Bill Blue, Tom Hafer, and Bob Maharry—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants shared the perspective that marine resources are currently healthy and thriving.

- Several participants shared why they scored present marine resource health as ‘High,’ including decreased fishing pressure due to fishing restrictions and less participation in the California commercial fishing industry, and a perceived reduction of debris and trash in the ocean.
- One fisherman shared they see many bait fish and marine mammals, which they believe indicates a healthy environment. Another fisherman stated they are now seeing new fish species, specifically rockfish.
 - One participant perceived that the Rockfish Conservation Areas (RCAs) have successfully improved rockfish populations, so much so that areas accessible to fishing are overpopulated. They added that this has led fishermen to have to fish in other areas to avoid catching certain species.
- Another fisherman highlighted the need to fish closer to their home ports to make commercial fishing economically viable. However, they stated this puts additional pressure on areas that local fishermen target often.

Participant Quotes

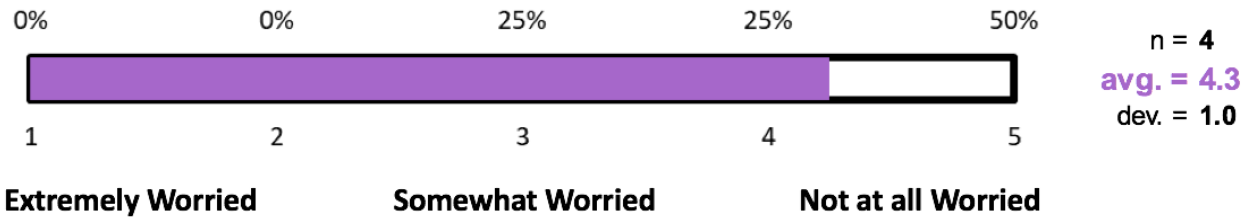
“I scored it high. I think the ocean's healthy, there's a lot of fish. The ocean is in good shape, you know, especially in California [and the] West Coast.”

“Over the last 15 years, with the different closures, restricted areas, and restricted access and a decrease in participation [in the California commercial fishing industry], what I see in my travels is the ocean's healthier than I remember it 20, 25 years ago.”

“The ocean looks healthy to me. I mean, the RCA has been closed for so long now, [there's an] abundance of rockfish in the shallows that never used to be there.”

“I think my [only] concern would be that the fisheries have changed where people have to fish really economically. So guys are fishing closer to ports. A lot of the same fishermen are kind of fishing in the same area as each other. So the common spots get picked over a little bit more. So we're worried about size, stuff like that.”

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants' scores regarding the long-term health of marine resources ranged from somewhat worried to not at all worried. However, they clarified their fears were about future management and other external factors that could negatively affect marine resource health rather than concerns about the resource itself.

- Participants stated they are not worried about marine resources' future health and sustainability from a resource perspective.
- Several participants expressed concerns about future ocean development and fisheries management, identifying proposed wind farms in local waters and additional MPAs in federal waters as their primary worry. One participant suggested further limiting fishing will increase pressure on the resource in unrestricted areas.
 - One participant expressed concern about considerations to open the rockfish season to the sport sector year-round. They highlighted that the rockfish fishery is currently closed for two months to avoid fishing during the spawning season.
- Another participant shared they don't trust decision-makers to make choices that will support marine resource health into the future due to their belief that political pressures currently drive management decisions.

Participant Quotes

"We're not worried about the resource. We're just worried about the way it's being handled now."

"[Offshore wind] is a big concern. I don't think the science is very well settled on what the transmission lines do. I know on the East Coast, the [movement towards offshore wind] stopped because there was evidence that it was hurting spawning. So if fish can't spawn properly, or their spawning is inhibited, that's obviously not good for the resource. And just my same concerns before - the more ocean you take away where we can fish, the more concentrated people become. And then you've overstrained a resource in those areas. So that's the biggest thing, is the loss of ocean that's fishable. I think that's the biggest impact in the future."

"I'm worried about [decision-makers] putting more MPAs in federal waters. I think there are too many of them already. The [MPAs] just cause overfishing and a size limit and a quota for all the fisheries. I don't even know why they put MPAs in. It just kind of ruined everything."

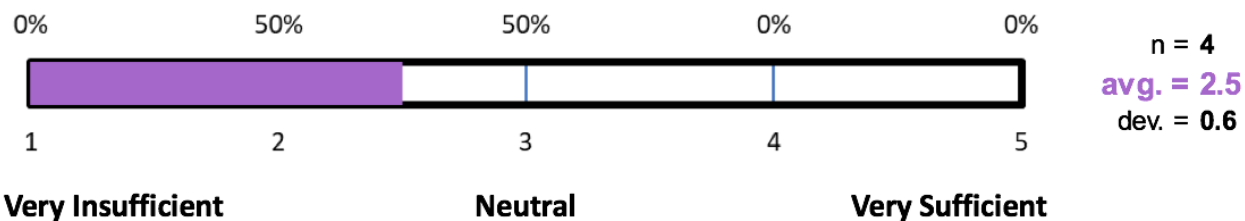
"It took a long time for [the California Department of Fish and Wildlife] to actually close the nearshore fishery for a couple of months. They closed the sportfishing seasons on rockfish for a couple of months, the peak spawning months of [the rockfishes] cycle. I fished hook-and-line rockfish for a long time. Our most productive time for fishing, this was back in the 70s, was

when the fish were spawning. [The fish] were all congregated up on the rocks. At that point, you know, there was a lot of fish. You'd get done unloading [and] the inside of the fish hold would be lined with eggs. You know, we didn't think about that at those times. It's ludicrous that [now] they want to open that fishery [for sportfishing] year-round. The only reason it [the fishery] survived and [is] thriving is because they shut it down for two months. It just doesn't... it doesn't make any sense what they're trying to do."

"Just the political climate in Sacramento, you know, we're not real cozy with what we see coming down from Sacramento with regards to how [fisheries] are being managed here. You know, you can't politicize a resource, and that's what's happening. And it's wrong."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants identified several restrictions that inhibit commercial fishermen from accessing available resources, including the uncertainty of fishing seasons and other fisheries management restrictions.

- Several participants highlighted the challenges with management changes that lead to the uncertainty of fishing seasons. They stressed the importance of having the ability to access and participate in multiple fisheries year-round to be responsive to management restrictions in seasonal fisheries.
- One participant expressed there is sufficient access to becoming a commercial fisherman. However, they identified limiting factors, including costs of permits and restrictions on fishing time, specifically related to shortened seasons in the Dungeness crab fishery due to elevated risk of marine life entanglements.
 - One participant highlighted the high degree of uncertainty in the fishing season's timing and length for Dungeness crab, making it challenging to plan for a year-round fishing business that yields sufficient income.
- One participant highlighted the abundant rockfish populations that are inaccessible due to RCAs. They suggested commercial fishermen be given a quota to catch these fish. Otherwise, they believed out-of-state fishermen would target the resource.

Participant Quotes

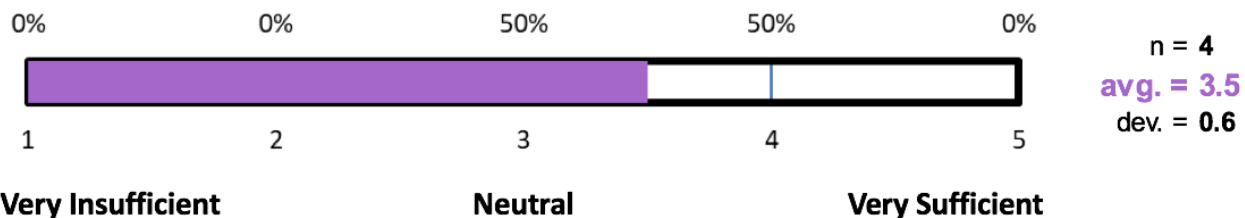
"To get into fishing nowadays, a guy can go buy a boat and do open access. That's a little bit of money, it's a little bit of fish, but it's expensive to get into fishing. I mean, you're not going to find a nearshore permit and a trap endorsement for less than \$150,000, \$200,000. Kids don't have that kind of money lying around. Dungeness crab is expensive to get in. You've got to have

a boat and you got to get the permit. And so that's a problem. You know, there's not going to be a whole bunch of new guys going fishing because it's too darn expensive to get into it."

"As far as access, the access isn't poor. A lot of it's just kind of port-specific and the dynamic of the fishermen. I think a big concern right now is regarding whale entanglement stuff, so guys are just having a hard time planning. Their seasons were cut short. So that's probably been the biggest impact for income is just the whale entanglement stuff right now and just the lack of ability to really plan because it's not really clear what's going to happen in the future."

"Between the two ports, we're small boats. And there's a lot of rock out there that [is] spread out. It wouldn't take much of a [rockfish] quota. I'm not talking 10,000 [pounds] a week, [but] you could spread [the quota] around, and it would work really [well]. And there's plenty [rockfish]. It would make a big difference [if we were allowed to access those rockfish]. I'm not talking wide open like it was. But it remains to be seen, who gets access to this fish."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary When discussing income from fishing, participants indicated there is an opportunity to make a sufficient living from commercial fishing. However, they reported increasing business costs make it challenging to generate revenue from fishing alone.

- One fisherman shared their perspective that fishermen generally make an income from fishing depending on the effort put into their business. However, they also recognized the fluctuations in revenue, with some years being profitable and others being less so.
 - One fisherman shared that since they have access to the permits they need and have a business model in place, they can make a good living.
 - Another fisherman explained they know commercial fishermen who have taken additional jobs outside the fishing industry to make ends meet.
 - One participant identified certain fisheries, including open access, as an option for young fishermen to get into the industry. However, they acknowledged that relying on these limited opportunities to make a living does not provide sufficient income to raise a family.
- Several fishermen stated that the rising fishing costs do not align with the price of fish, which remains static or, in some cases like the black cod market, drops to levels that result in insufficient income.
 - One participant explained how the increasing costs of fuel, bait, slip fees, and boat maintenance has directly affected their ability to generate a profitable business.
 - One participant emphasized the challenge of balancing the high costs to obtain specific fishing permits (e.g., Dungeness crab) with increasing operating costs.

- One participant stated it is expensive to participate in federal fisheries that require an observer, which adds overhead costs to each trip.

Participant Quotes

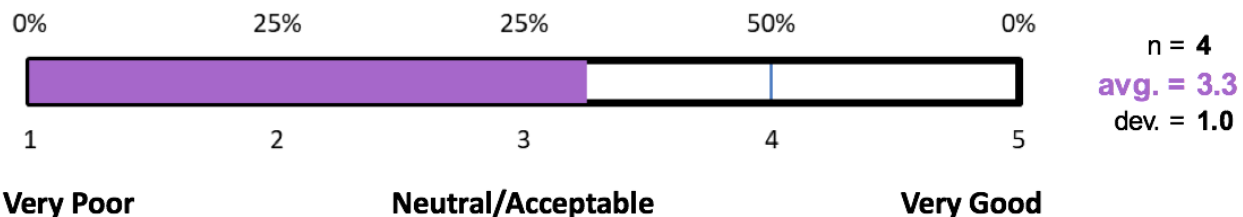
"Some years, you make a lot of money. Some years you make a medium amount of money. Some guys make the same kind of money all the time... And for a young guy, [fishing can be] a pretty good living. So, you know, it all depends how hard do you want to work and if the fish are there. But it's all fishing, so. I mean, like I said, some years, you have a good year. Some years you don't."

"A lot of guys do have other jobs. Guys maybe will have to fish multiple fisheries. It's not like there's just one fishery that a guy can fish and kind of get through anymore."

"What do you go fishing for as a young kid? [There are] only a couple of things around here: open access and [hagfish]. Well, the [hagfish] market tanked. That's limited. And the open access thing, [no one is] going to raise a family doing that."

"Operating costs have gone up all the way around, you know. Whether it's your slip rent, or your insurance, or your fuel, or your bait. You know, the price of fish is up more or less. But the costs of running these boats have gone through the roof compared to a number of years ago."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants shared various perspectives about the diversity and quality of available markets, which differ across fisheries and between Morro Bay and Port San Luis ports.

- One participant stated there could be improvements in the diversity of local markets to increase choice and competition, which could also improve pricing. Another fisherman shared that markets are available for certain types of products in high demand (e.g., spot prawn).
 - Another fisherman communicated their frustration with the lack of local processors and markets.
 - One participant shared there has been a shift in the Morro Bay/Port San Luis area over the last few years to a fresh market fishery only. They believed this affects the black cod fishery, specifically, which has traditionally been a frozen market. In addition, they stated the ports now lack freezers and processors, which directly affects their ability to sell what they catch.
- One participant expressed concerns that there are only a few processors in the area, and it requires a lot of hard work to network within existing channels to sell their catch. In addition, they identified another challenge regarding finding a buyer willing to truck big loads outside the area (north or south).

- Another participant shared that fishermen out of Morro Bay/Port San Luis have had to fish based on the trucking schedule, which involves catching certain sized fish and a certain amount of fish to align with buyers' requirements.
- One participant believed fishermen engaged in open access fisheries conducting direct-to-consumer marketing are affecting traditional markets. As a result, the participant explained how they experienced a drop in the price per pound they receive from their buyers.

Participant Quotes

"I think the biggest thing our port could use is definitely more markets."

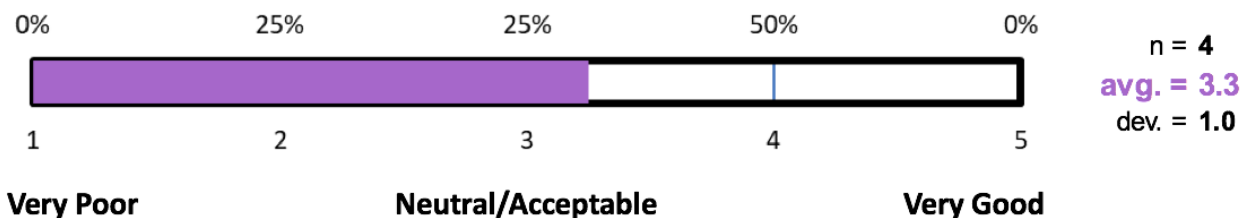
"I think for the black cod fishery, years ago, the market was extremely good. Everybody here was fishing for a frozen market. Anybody could get a market. Anybody that had a boat could sell black cod. There were a lot of boats here doing that. And when that market and the dollar value changed, [...] that frozen market went away. It wasn't that the resource was really in trouble. It was that the markets became smaller, and people fell out of it."

"Port San Luis [has] no processing at all left. We just lost our last fish market. We don't even have a farmer's market yet. So we just have extremely limited options, almost no competition. So for live fish, we have one buyer who transports most of the live fish up to the Bay Area. For hagfish, we only have one buyer. For salmon, [name redacted] will buy a certain amount. After that, guys have to call around to find other people to buy their fish. [...] It's bad for the price, it's bad for scheduling your fishing trips just because you're so dependent on meeting your truck driver, all that. [...] A lot of times [fishermen and the trucks] are on different schedules. So it just makes everything more difficult."

"We make it work. The alternative is to sell cheap just to get [the fish] off the boat. It's not good. Markets are tight. But we make it work, you know, but not everybody has the same networking ability of some of the other guys."

"What we're seeing now is a lot of people that aren't full-time fishermen that participate in the open access [fisheries]. [This] has brought a lot of hardship to traditional markets that have been around because people are selling fish out of the back of the pickup, instead of through the legitimate channels that help support the community and the infrastructure."

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants shared a range of perspectives on local infrastructure. Some participants felt the infrastructure is sufficient for the size of the Morro Bay and Port San Luis ports. Others explained the connections between infrastructure and markets.

- Several participants explained the relationship between viable markets and having the infrastructure to support those markets. They shared how the lack of volume of fish being landed and the movement toward fresh fish markets in Morro Bay/Port San Luis has an adverse effect on available infrastructure.
- Another participant expressed concerns about the lack of maintenance and repairs of the limited available infrastructure.
- One participant shared that while there has been a reduction in available and working infrastructure over time, they felt the current infrastructure, though limited, is sufficient to support commercial fishing activities out of Morro Bay.

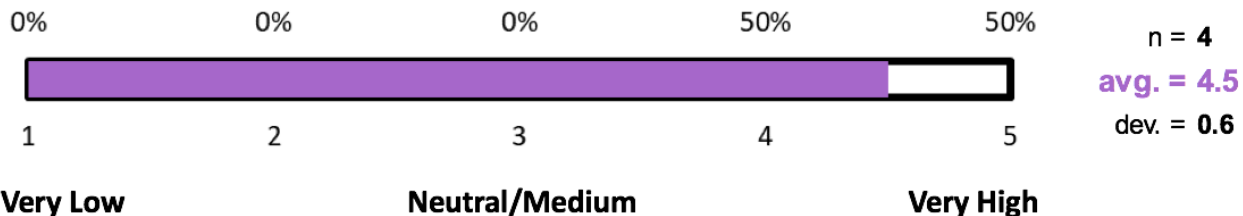
Participant Quotes

“Our facilities, due to lack of volume going across the docks where we are able to unload, [makes it] hard [for the port] to keep up on maintenance and repairs and whatnot.”

“What's happened over the last few years in our two areas [has been a movement to] a fresh market fishery. We don't have processors here. We don't have freezing capacity. So everything that we do goes to a fresh market, which has changed the dynamics.”

“[Morro bay has] two unloading docks. And then you also have the [out of town buyers] picking up [via trucks]. But we only have one fuel dock. But all in all, [for] Morro Bay, I think it's sufficient for us considering there's not a whole bunch of guys, you know, a lot less than there used to be.”

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port's fishing operations?*



Discussion Summary Participants described how COVID-19 was highly disruptive to the fisheries in Morro Bay and Port San Luis, particularly regarding markets.

- Several participants shared that fishermen in the area had been unable to sell all of their catch during the COVID-19 pandemic, specifically those who relied on fresh market sales.
 - One participant indicated fresh market sales were directly affected when restaurants, a primary buyer of fresh fish, started to close due to the COVID-19 pandemic. In addition, one participant highlighted that specific overseas markets shut down due to COVID-19.
 - Several participants anticipated this hardship to be temporary and were optimistic that the situation would change once restaurants reopen.
- Several participants described how COVID-19 made adjusting their fishing schedule to align with the uncertain trucking schedule detailed in the Markets and Infrastructure sections above even more complex (e.g., limited drivers, demand for product, etc.).
- During the pandemic, several participants described the changes in market conditions and buyer preferences (i.e., what fish was deemed 'sellable' by buyers). As a result, fishermen could not sell their catch, resulting in a loss of bait and product.

Participant Quotes

"[COVID-19] was devastating. Even though it's turning around now, it did play a big part in hurting a lot of businesses early on."

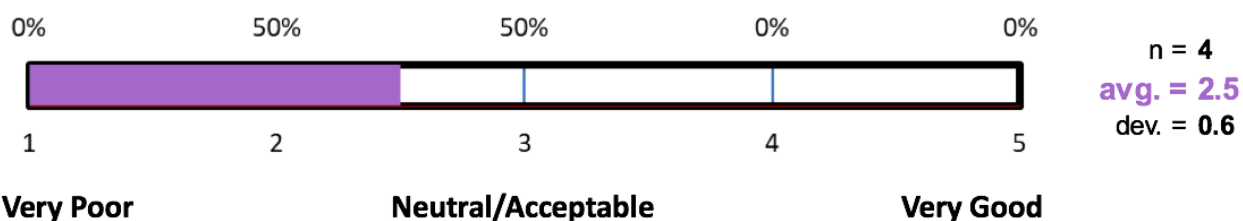
"With the onset of COVID and all the restaurants and stuff closing down, well, that's where all the fresh stuff goes. So this year, that's been a huge hit on all the fisheries that we have here locally because they all revolve around fresh markets. And [this market that] was kind of peaking a couple of years ago... we kind of got the door slammed in our face."

"COVID hit us hard because it instantly shut down the hagfish market. I think at the time, there were four boats fishing. So we ended up dumping a lot of our fish, and then a lot of our bait went bad. The live fish market pretty much shut down for us for a short amount of time just because there were no restaurants open, and the majority of our live rockfish go to the restaurants in the Bay Area and Los Angeles. So COVID hit us especially hard on that. But it seems to be rebounding a little bit."

"One of the things that we saw happen with COVID-19 was that it changed what little bit of trucking infrastructure that Morro Bay had. [...] We normally went fishing when the weather was good [...] But for my personal experience this past year, I've done things that I never envisioned that I would have to do just to survive the COVID thing. We fished to when the truck was available, not to when the weather was good. And we had buyers that [...] only wanted small fish, so in the fishery that I participate in, all the fish are live when they come to the surface. So we were throwing fish over the side that normally would have been marketable [...]. And [we] would go one trip - small fish came in, big fish went back. [On] the next trip, big fish came in, small fish went back. And if we couldn't make it work for the day that the truck was going to be there, we didn't get to go fishing. So we managed to make a year out of it, but it wasn't easy. [...] Those of us that are on this call have figured out how to survive, and that's why we're still here."

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary When discussing labor, participants expressed concerns about the lack of younger people entering the commercial fishing industry and the challenges with retaining crew members due to the industry's dynamic nature.

- Several participants described that over the past decade, there has been a decrease in fishing businesses being passed down through generations in California. Increases in permit and operations costs, coupled with an aging fleet, were identified as the primary drivers.
 - One participant expressed concerns that there appear to be few boat owners under 30 and no foreseeable skilled labor pool with the necessary training and experience in boat mechanics, electrical, etc.
 - One participant identified Alaska as a state that is investing in bringing young people into the fishing industry.
- One participant suggested using the number of fishing permits for sale to indicate the industry's ability to retain participants.
- Several participants shared it is increasingly difficult to find reliable crew members willing to work under unstable conditions related to how the fisheries are managed.
 - One participant commented they take additional time to help support good, reliable deckhands in finding better positions on other boats and fisheries that can provide them with stable, long-term jobs to help retain them in the industry.
 - One participant stated they could find crew willing to stay with the operation long-term if they can provide them with work year-round. However, another participant explained it is difficult for crew to work around the uncertainty of fishing seasons (e.g., delayed openers), particularly when crew have other non-fishing jobs they need to consider.
 - One participant shared they have struggled to find crew with the work ethic—willingness to work long hours under strenuous conditions—required to succeed in the fishing industry.

Participant Quotes

"My biggest concern with our fishery is the lack of younger guys. We have so few guys that want to deckhand. Young guys are [un]interested in running a boat, much less owning a boat. I think it used to be more family businesses. Parents would fish, and then their kids are fishing with them, and [the kids would] get their hand on a boat or get hooked up with a boat. For some reason, [in] our ports there seems to be a generation gap [of kids that aren't] interested in fishing. So in our ports specifically in 10 years, there's going to be a lot of boats that don't have operators. I don't know where we're going to get operators."

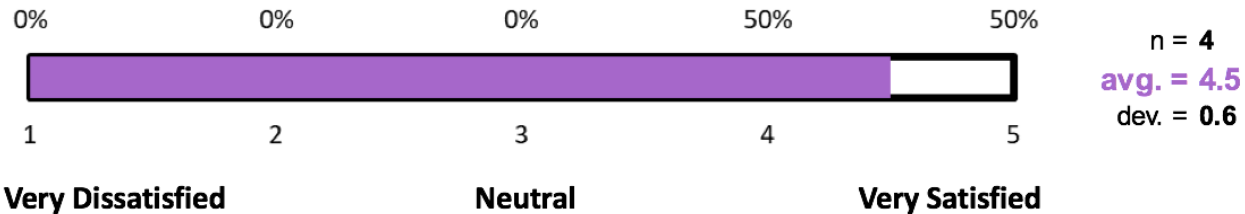
"I think the other thing is just the dynamic of fishing. It requires you to be a multifaceted person and kind of curious and interested in different things. I don't see a lot of 18 to 21 year old kids that are interested in learning new things or have a curiosity of learning electrical, mechanical, all that stuff that's required to be successful."

"I've found good deckhands. I try to get them promoted quick, get them on nicer crab boats, try to get them on squid seiners. And I've been lucky. I've found some good guys I've passed on to real nice boats. But overall, it's the biggest thing we struggle with on our part is just finding crew guys, finding reliable guys."

"I feel like you have to find five crew guys to find one that'll work. If you run the boat year-round, you're able to keep a better crew. But if you're intermittent at all, keeping any sort of reliable or steady people is almost impossible. I don't blame them. It's such a volatile

industry. So you have to find a weirdly specific deckhand, someone that almost enjoys the volatility and trying different fisheries and going up to Alaska for a summer and coming back [here] to fish. And we don't have a lot of [deckhands like that] here."

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Participants were satisfied or very satisfied with their jobs in the fishing industry.

- Participants expressed a great deal of satisfaction and appreciation for their jobs. Several participants expressed the desire to continue fishing for as long as they are physically able to do the work.

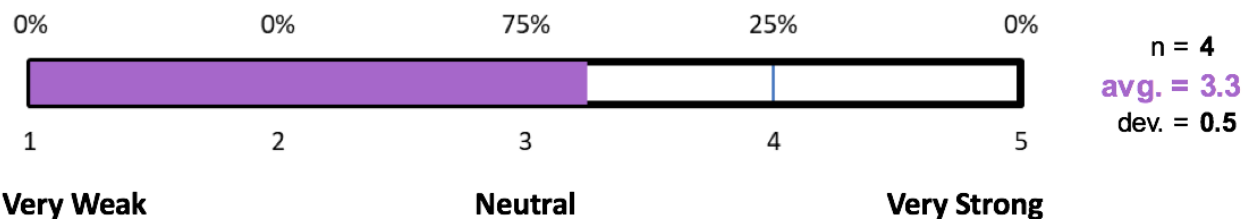
Participant Quotes

"I'll say I'm very satisfied that I've been able to do what I do as long as I've been able to do it. And I hope I can continue to do it."

"I like what I do. I've been doing it a long time. I'm getting a little over it now, but I'll probably fish a few more years and then call it, you know."

"I'm still real happy with what I do."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants reflected on the generally positive relationships between fishermen in the Morro Bay/Port San Luis area while acknowledging fishermen's competitive and independent nature.

- One participant explained a small, core group of Morro Bay/Port San Luis fishermen are actively involved in local fishing associations. However, they highlighted that it is challenging to bring fishermen together as a group unless there is a crisis, which can lead to more of a unified effort.
 - One fisherman acknowledged the importance of fishing family members actively coordinating and keeping local fishermen informed of what is happening, specifically

- related to issues that may affect the fisheries (e.g., offshore wind, fiber optic cables, entanglement risk).
- One participant highlighted those fishermen who are more actively involved in fishing associations and other groups are financially affected by taking time off the water or out of the boatyard to attend meetings.
- One participant emphasized fishermen generally lead their operations and are individualistic by nature, making it challenging to bring fishermen together to gain agreement.
 - One participant described the competitive nature of fishing and the need to be aggressive on the ocean to make a good living. This dynamic can lead to fishermen not wanting to collaborate off the water.
 - One participant explained that many fishermen are nearing retirement, making it difficult to encourage their involvement when discussing the long-term future of the fisheries.

Participant Quotes

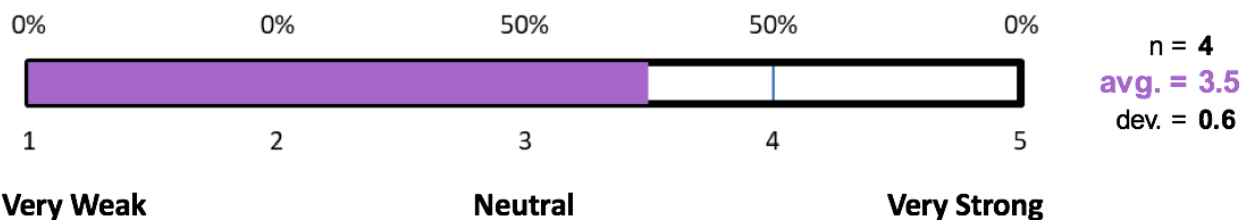
“Well, fishermen have always been very hard to get together. Usually, at times of crisis, there's a little unity or effort. But I mean, everybody gets along for the most part. It's hard to have really strong social relationships if you're in this business.”

“At the end of the day, you got this core group of guys who do the heavy lifting in every port. You got four or five of them on this phone call right now. And you got the other 85% that just talk. You got a handful of guys that when it comes down to something, we put what little differences we may or may not have aside, and we get into the room.”

“Well, Morro Bay is fortunate because we have an organization, the [Morro Bay Commercial Fishermen’s Organization], I think since 1972 [...] Our organization is strong. I think that we have accomplished a lot of things during these last 30 years. We have nine people on our board, and everybody's well informed and enthused about, you know, about keeping the organization strong.”

“I think it's just the nature of fishermen. [Some] people that don't really want bosses. They don't want people telling them what to do. They want to be their own person. So getting these types of guys to agree on something is almost impossible.”

11. Social Relationships - External Overall, how would you rate the strength of the port’s relationship with external groups who could help support community needs?



Discussion Summary Participants believed the Morro Bay/Port San Luis area’s relationships with external, fishing-focused groups are generally successful. However, they identified opportunities to strengthen relationships with the local community, including decision-makers (e.g., city councils).

- Participants highlighted the Morro Bay Commercial Fishermen's Organization as the primary partner or liaison in the area for external groups to work with.
- One participant believed there is a good representation of Morro Bay/Port San Luis fishermen in key external fishing groups, including the Pacific Coast Federation of Fishermen's Associations (PCFFA), California Dungeness Crab Task Force (DCTF), Central California Joint Cable/Fisheries Liaison Committee, California Dungeness Crab Fishing Gear Working Group, etc.
 - One participant shared an example of the type of negotiations they are involved in within their port, namely working to balance the need to maintain fishing opportunities and expand renewable energy options.
 - One participant expressed appreciation for the opportunity to partner with external groups, including those collaborations that channel financial support back into the ports (e.g., cable committee).
- One participant expressed concerns about the broader community's limited awareness of the local fishing fleet and suggested the fleet improve public relations and communications with the Morro Bay/Port San Luis public.
- One participant expressed concerns about the waterfront development planned in Morro Bay and the anticipated adverse impacts this may have on the fishing community.

Participant Quotes

"Everybody in the [Morro Bay Commercial Fishermen's Organization] that is a director or an officer are in contact with people all over the state. You know, the [DCTF, offshore wind, the cable committee, PCFFA, etc.]. So I think everybody's pretty connected and knows what's happening and is well informed."

"We're fortunate because we have a Central California Joint Cable/Fisheries Liaison Committee that really helps us out with whatever we need to get every year from them, and it's quite a substantial amount of money. So I think that part of [our external relationships] is strong."

"We have very poor public relations on our end. The community doesn't know what we do. We don't really have much community support, but most of that I blame on our fishermen."

"The big problem in Morro Bay is a shift in the [community's] mindset. We've got some developers here on the waterfront that are trying to move [fishermen] out. We got a city council and a mayor and a bunch of people [that are trying] to push us out... Most of us don't get to vote [in local elections because] most of us don't live in Morro Bay; we live out of town [so] we can't vote... It's a big concern."

Well-Being, Overall/Additional Comments

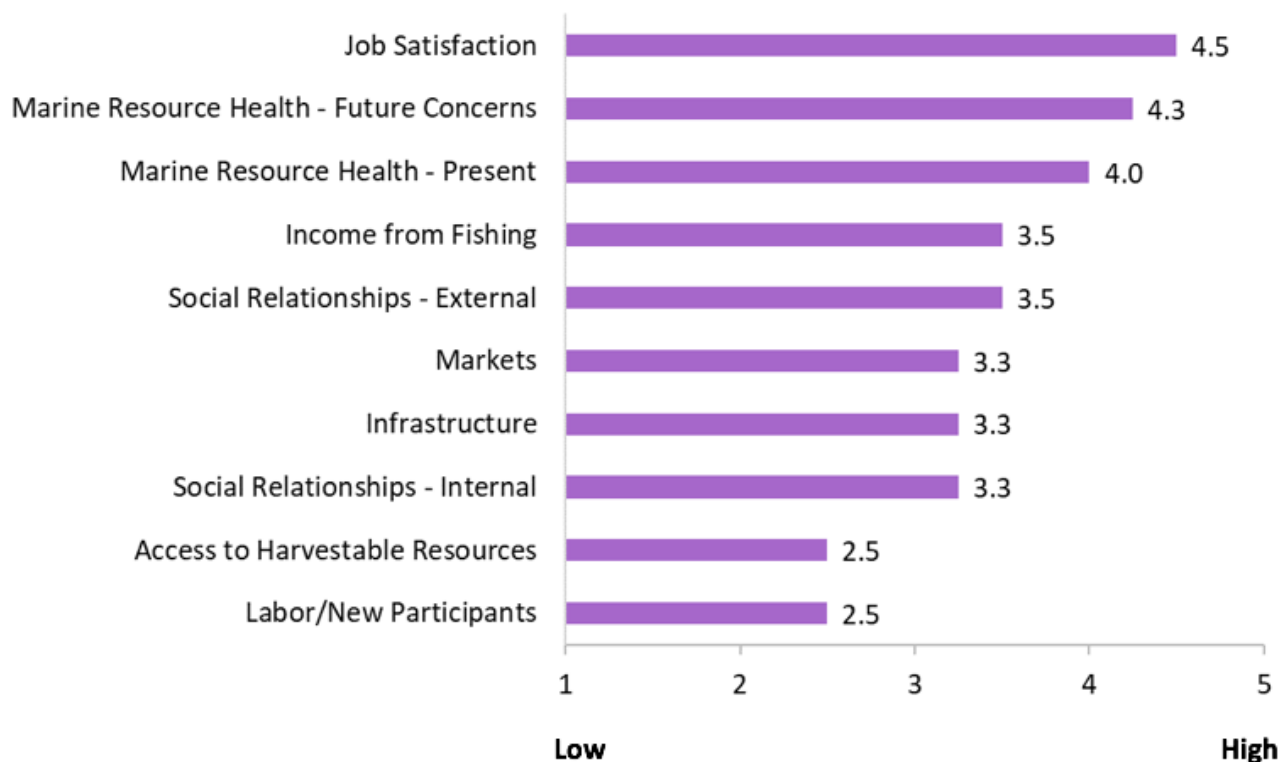
12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants felt they had expressed everything they wanted to share through the previously asked questions.

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

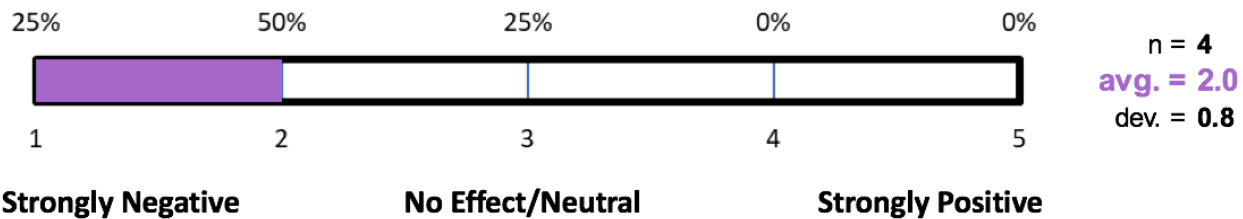
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary When asked about ecological outcomes or impacts from the MPA network, participants reported having seen no positive effects on marine resources. However, in some cases, participants stated MPAs have adversely affected marine resource health.

- One participant shared their frustration that the suggestion made by decision-makers and scientists of MPA spillover and increased abundance of marine resources outside MPAs had not come to fruition.
 - One participant shared that some fisheries scientists respected by the fishing industry have found MPAs to be ineffective fisheries management tools.
- Several fishermen expressed concerns about the impacts of fishing on marine resources outside of MPAs due to crowding in open areas.

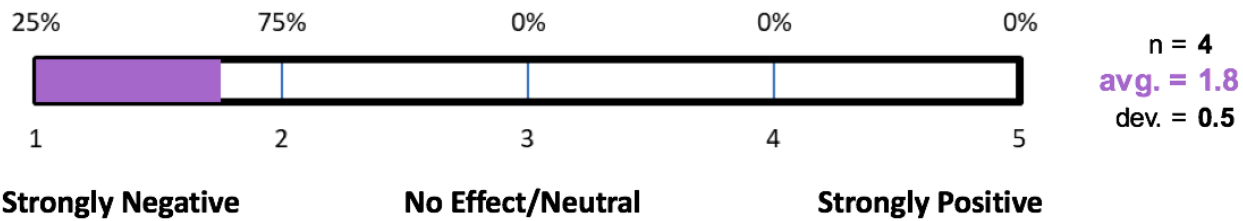
Participant Quotes

"There's no spillover. All these fish that are in these nearshore areas are territorial. They don't move. The cabezon, the grass bass, the gopher cod larva might flow in the kelp a little bit. But basically, they stay in the same area. We proved it by catching them, tagging them, taking them 10 miles away, releasing them, and then recapturing them a year later in the same spot."

"I don't think [the MPA network] has had any effect as far as what they said [the MPAs] were going to do. But I think it's had a negative effect [on marine resources]. Guys crowd up. Boy, you draw a line and [fishermen] set on it."

"We fought like hell to try to get the [Blue Ribbon Task Force] to really know fishing and how fishing works. And when they put a bunch of MPAs in the best [nearshore] areas that we have fished for years and years, that when they leave little areas open close to port, [those areas] get hammered... I don't think the MPAs are doing anything, nothing. Except causing overfishing."

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary When discussing livelihood and overall impacts from MPAs, all participants highlighted the adverse effects of MPAs on fishermen from Morro Bay and Port San Luis.

- One participant shared their decision to leave certain fisheries following the implementation of the MPA network due to the loss of fishing grounds. They also described the challenges of tracking fish cycles similar to how they used to before the MPAs were put in place, which has hurt fishermen's ability to make a living year-round.
- One participant identified an increase in fishing pressure outside the MPAs. They also reported challenges for fishermen to make a viable living and justify longer fishing trips to find areas to fish outside MPAs.
- Participants noted that while fishing is a dangerous business, MPAs have made their job more difficult, especially to continue to be profitable.
 - A couple of participants emphasized how fishermen have to travel further offshore during certain times of the year, which can be challenging under certain weather conditions. One participant described the increased amount of fuel used and the additional time out on the ocean that adds wear-and-tear on the vessel and can be exhausting for fishermen.
 - Several participants described the increase in crowding, compaction, and displacement since there is less area available for fishing due to MPAs.
- One participant felt it was inappropriate to use MPAs as a fisheries management tool to protect certain resources (e.g., rockfishes); they believed MPAs have negatively affected fishermen's livelihoods without providing sufficient resource protection.

Participant Quotes

"There are certain areas that are closed that we can't fish in. The crabs aren't always there, but they are at certain times, and when they are, we can't fish in those areas anymore. And the gear that we use doesn't affect anything else in that closed area. And for us to be shut out of that, it takes food off of our table at certain times of the year."

"The MPAs we have down here are where we used to catch crabs that we can't fish anymore. They're on the beach, you're tucked in there at Purisma, you're tucked in there at [Point] Arguello, and that's tough country... So, you have to fish farther offshore. There's a big

difference between eight and 10 and 12 and 18 fathoms below Purisma in the springtime, and 40, 50, 60 fathoms. So you're pushed offshore. So yeah, there's a safety issue."

"Well, I think the guys are still able to fill their quota. It takes longer. More fuel to burn, more time on the ocean... You're still able to do it if you fish hard. These guys fish every day. The nearshore guys that go every day. So they're still making a living, but of course, they're spending a lot more going. So it just takes longer, and they are fishing the areas harder than they would if the areas were still open where we saw fish."

"[The MPA network is] wrong, you know. [MPAs] don't really have a purpose other than they are a political feel-good. And that's the detriment to this industry, it's a political feel-good, has nothing to do with real science. We're being put out of business by political make-you-feel-good [antics]."

"[Decision-makers] didn't need to go to the extremes they did, taking all our best fishing grounds away... We told them in the beginning 'hey, you guys better look at this nearshore fishery. There's a lot of guys doing it.' That's all they needed to do is investigate that [fishery], and everything would have been fine, but they didn't. Instead, they put a bunch of MPAs in, which really screwed things up. And I'll never forgive them for that."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants emphasized that MPAs from Point Conception to Big Sur have negatively affected local commercial fishermen.

- *Point Buchon State Marine Reserve (SMR) and Point Buchon State Marine Conservation Area (SMCA)*: Participants identified this MPA complex as having the greatest impact on the Morro Bay/Port San Luis commercial fleet. One participant explained the proximity of these areas to the Morro Bay harbor has been detrimental to the local fleet's ability to fish safely and efficiently.
- *Vandenberg SMR*: Participants explained this was an area regularly fished by nearshore fishermen out of Port San Luis. One participant highlighted this area was also a prime area for Dungeness crab.
- *Piedra Blancas SMR and Piedras Blancas SMCA*: Participants identified this as a main nearshore area where fishermen would be able to catch their quota during a day trip. One participant highlighted the reef off of Piedras Blancas Light Station as important nearshore fishing grounds.
- *Big Creek SMR*: One participant explained how this was a primary area for spot prawn fishing, specifically off the canyons. Another participant highlighted this MPA (and the area north of Big Creek SMR) has negatively affected the black cod fishery. One participant expressed concern that anchoring is prohibited in this area, which affects a fisherman's ability to spend multiple days in an area which also poses a safety issue.
- *Point Sur SMR and Point Sur SMCA*: One participant expressed frustration with the large area these MPAs cover and questioned whether the entire area was necessary to be restricted to

achieve management goals.

- *Portuguese Ledge SMCA*: One participant highlighted the impact of this MPA to spot prawn fishermen out of Monterey and the surrounding area, including Morro Bay/Port San Luis.

Participant Quotes

“All the MPAs have an impact on fishing and local fishermen.”

“On this map [of the MPA network], it doesn't look like a lot of area to somebody that doesn't know [about fishing], but it is a lot of area. [...] You could put a pretty long string or two or three or five in each and every one of these areas. And you can take care of business.”

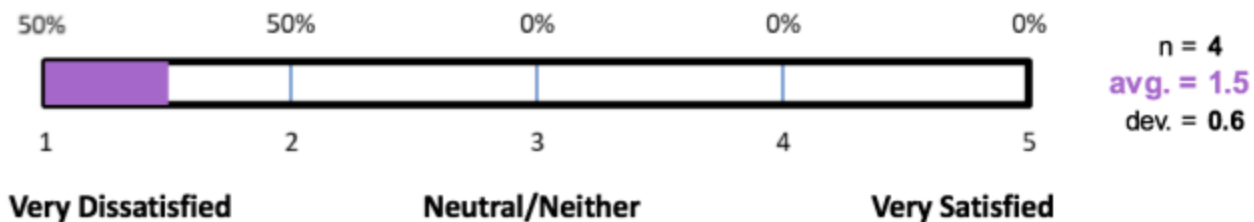
“The biggest issue, the biggest impact on the Morro Bay [and Avila] fishermen, for sure, is Point Buchon [SMR and SMCA]. I mean, that's a close area [to our harbor] where they put an MPA, which they didn't need to do.”

“We lost some area there. Buchon [SMR and SMCA], Piedras Blancas [SMR and SMCA], [Vandenberg SMR]. We lost some good crab grounds. And all three of those, once again, they're closer to the beach [which helps with safety]. Typically we fish [south]. The better fishing is from April on. And it's going to gale every day, those areas you could work.”

“[Big Creek SMR] is another spot that was very close to a protected anchorage. You could spend a couple of days in that area, get the mornings in and have a place to spend the afternoon and make a trip out of it. And that's been taken away.”

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants were generally dissatisfied with the management of the MPA network, especially concerning the MPA planning process.

- Participants questioned how MPAs are managed and in relation to what goals.
 - Several participants expressed confusion with how decision-makers define and apply adaptive management. One participant suggested the term “adaptive management” implies using data collected from MPA monitoring efforts to inform how the MPAs are managed. They expressed concern about this term being used in the context of the MPA network since they don’t believe decision-makers are open to making MPA management changes in response to the best available information, including fishermen’s knowledge.

- One participant asked if there would be changes to MPA designations or complete removal if MPAs are shown not to be effective. Another participant suggested that the MPA network be managed like MPAs in Australia, where no-take areas are rotated, which helps keep kelp and other marine resources thriving.
- Participants spoke to the deep mistrust between fishermen and managers due to the MPA planning process. In addition, several participants expressed their frustration with the outcome of the placement and designations of the Central Coast MPAs.
 - Several participants believed the MPA network was put in place to be responsive to political pressures. However, participants believed MPAs are not designed in the best interest of the marine resources they are meant to protect. One participant suggested there are alternatives to MPAs that would achieve management goals more effectively.
- One participant felt the MPA planning process was designed to allocate funding for ecological research but fails to invest in active management to help improve marine resources, essentially deeming them “paper parks.”
 - Several participants highlighted the exercise that asked fishermen to identify their prime fishing grounds during MPA implementation—and how decision-makers used this information—to determine MPA placement as one of the most detrimental experiences during the planning process.

Participant Quotes

“What are they managing, exactly?”

“If there was interest in real management, I think there could be better alternatives than MPAs.”

“You know, they had this word 'adaptive management' [that decision-makers used] a lot during the process. So what does that exactly mean? If they find out the MPAs aren't working, are they going to change them?”

“You know, we suggested to rotate the reserves like they do in Australia, and that works really well over there in Australia. But [the California Department of Fish and Wildlife doesn't want] to. I mean, once they get these MPAs in place, are they going to be forever? I mean, why? Why can't they move them around and open some reserves up and weed out that fish and break that dirty old kelp up that's rotting on the surface?”

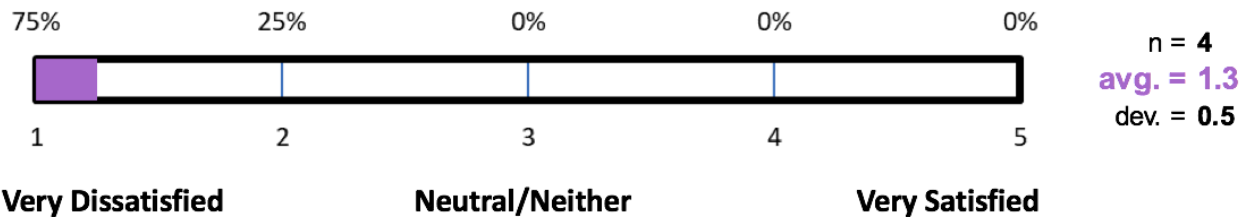
“There's been a lot of broken trust with the fishermen. The logs were used [during the MPA planning process]. The heaviest fished areas [are] the areas they closed. So now, I mean, the big thing with the fleet is as soon as you get a logbook and you're new to the fishery, they tell you don't ever put where you're really fishing on those logbooks. And there's just a severe broken trust between the management and the fishermen. We don't want to work with [managers] if we feel we're going to work with [them and then they] take the prime area. So that's one of the consequences, is the trust is broken.”

“The trust isn't broken, there is no trust. They lied to us. We deserve better than that. [...] They wanted to put the MPAs in, and nothing was going to stop them. And they would have even

made them bigger if they could have. At the end of the [Blue Ribbon Task Force] meeting, they did. They made [Point Sur SMR] bigger. It was ridiculous.”

“They're paper parks. That’s what they are.”

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants expressed their dissatisfaction with the MPA monitoring program due to being uninformed of monitoring efforts.

- One participant shared that once the MPAs were implemented in the Central Coast, fishermen were involved in some research efforts during the first few years. While this short-term partnership was seen as a positive by those fishermen involved, they felt the state has not set the ongoing investment and priority to continue funding these collaborative efforts.
 - One participant felt it is essential to involve fishermen in monitoring because it communicates that researchers and managers value fishermen’s expertise. However, they also emphasized the need for funding to be prioritized for this type of collaborative work.
 - One participant questioned whether not involving fishermen in collaborative research efforts was because the data collected indicated the MPAs were not performing as expected.
- One participant questioned the validity of relying on citizen science as—what they believed—the primary method for MPA data collection.

Participant Quotes

“[Monitoring] was [effective] back when they were doing it.”

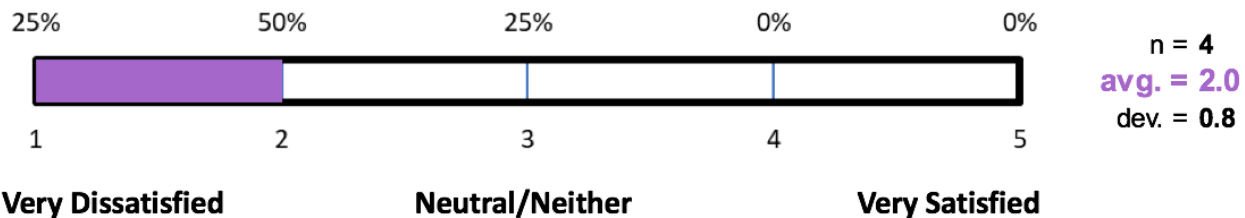
“During the whole MLPA meetings, [managers and decision-makers] were all hip on fishermen doing the monitoring and working on it and managing it, helping the [California Department of Fish and Wildlife] manage it [and conduct] research. They were going to involve the fishermen, [and] they did for the first couple of years when Packard was still putting money out for it. But [the California Department of Fish and Wildlife] didn't want to put any money out for it, so they stopped it. I mean, we had a really good protocol going. We were going in and out of the MPAs. We were tagging. Catch per unit effort. Cal Poly was all on board with that, but then all of a sudden it stopped.”

“Once we [fishermen collaborators] started coming up with the evidence that the MPAs really weren't working the way they [researchers] thought they would work, they stopped [working with us]. We went into Big Creek twice, three-day trips, two of them. We brought 5,000 tags with this. I think we caught 300 fish in the MPAs at Big Creek. There's no fish in there. The only

kind of fish in there are all the big lingcod and cabezon. If you fish in the open areas versus the MPA areas, it was basically the same, maybe even a little bit better in the open areas.”

“[Researchers] need to get down and dirty on the ground, see what's going on in these MPAs, see how they're affecting everyone, see how it's affecting the fish because that's what we're talking about here. Fish. And do something, you know. I mean, it's tiring. We need something done.”

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants expressed their dissatisfaction with MPA enforcement in the Morro Bay/Port San Luis area, specifically the inconsistencies with how regulations are enforced by the California Department of Fish and Wildlife’s Law Enforcement Division officers.

- Participants shared that enforcement is either extreme or absent, which has led many fishermen to distrust local wardens.
 - One participant felt a contradiction between how commercial fishermen and sport fishermen are treated by wardens, especially during the weekends when recreational anglers are more active, and wardens may not be on duty.
 - One participant felt wardens should respond to violations more quickly and not allow for days to pass before they question fishermen about their on-the-water activities. They stressed this was especially important if the warden did not witness illegal fishing activity occurring.
- Several participants highlighted there are times when fishing gear can drift into MPAs due to kelp and weather, but most commercial fishermen abide by MPA regulations.
- Several participants expressed confusion on the type of information and evidence that wardens use when prosecuting a violation, which does not appear consistent across cases they were aware of.

Participant Quotes

“Enforcement is either over the top or nonexistent. There doesn't seem like there's any middle of the road, you know. [There's] no rhyme or reason why or when [enforcement] happens. So I think there's distrust in the enforcement.”

“It's hard to catch a guy in an MPA fishing, especially if he has a fast boat. He's got radar, and the sport guys do it all the time. But the commercial guys don't do it. I mean, there has been a few guys that accidentally were fishing in an MPA, drifted over the line, something like that. Which [enforcement] should cut a little slack to. But the [commercial] guys that are deliberately fishing in the MPAs and they don't care, [enforcement] doesn't catch them.”

"I feel like any weekend you can go look at the Buchon closure, and there's going to be sport guys in skiffs with their lines in the water. And I don't know, maybe [the California Department of Fish and Wildlife] tickets them or whatever. But I feel like any Friday, Saturday, Sunday, you go up to Buchon and there's sporties up there fishing."

"At the [Channel] Islands. I mean, you're setting near the line. Current's going or something messes up and all of a sudden you're drifting into one of the closures with a net in the water. And [enforcement will] go back and ticket guys, just based on what other people have told the [California Department of Fish and Wildlife]. [The California Department of Fish and Wildlife] will show up at the dock and say 'hey, it was reported you were fishing' and they'll give guys tickets. That kind of blows my mind that they can give tickets without even actually physically seeing you. [...] A lot of times [enforcement's] response is 'well, just work it out with a court,' which is bizarre to me."

19. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants expressed concerns and frustrations with their repeated participation and involvement in fisheries management processes, including MPA management.

- Participants shared how commercial fishermen generally feel like their perspectives are not valued or respected by managers or decision-makers.
- One participant emphasized the perceived lack of communication between fishermen and decision-makers, which leads fishermen to feel left out of policy processes and believe management and monitoring is not occurring.
- Several participants expressed concerns that decision-makers would use the information gathered during the focus group discussions in support of this project to further restrict fishermen's access to marine resources.
 - One participant questioned how the information gathered during this and other focus groups will be used and by whom. Another participant expressed concerns about how decision-makers would apply the focus group data to the state's 30x30 priorities.
 - One participant stated they would not have participated in the focus group discussion if not for their trusted relationship with project team members.
- One participant highlighted that the general public enjoys fresh seafood and that managers and decision-makers should do more to support and promote California's local commercial fishing industry. They emphasized the respectful relationship most commercial fishermen have with the ocean and their commitment to responsible fishing practices to ensure the sustainability of marine resources.

Participant Quotes

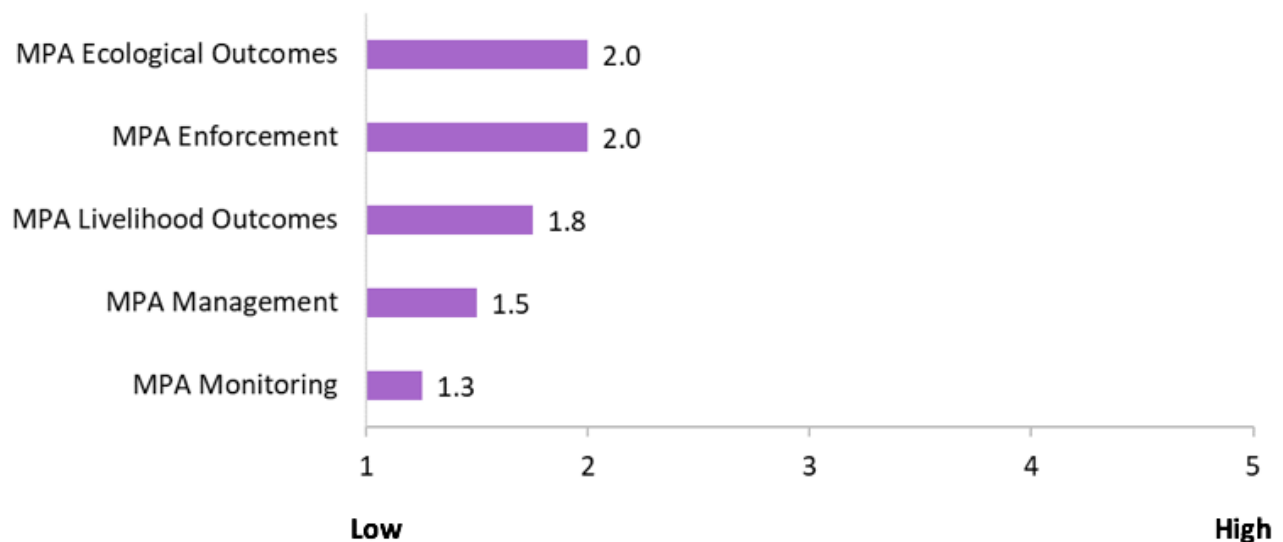
"Over the last 20 years, we've adapted our operations to satisfy [decision-makers]. It's cost us thousands of hours and thousands of dollars to rerig gear, to change things, to do things, to be accepted. For everything that's been taken away from us, not one thing has ever been given back. So for us to keep coming to the table and trying [to participate in these discussions], it's getting harder and harder."

“There's no clear, direct channels of communication [between fishermen and decision-makers]. Most guys don't have a clue how to get stuff changed or what the process is. So guys' default then is just frustration and poorly venting. I mean, I don't know who to call. I don't know how often anything's actually surveyed or studied. So it's just a big mystery: why is there spots on the chart we can't fish?”

“They [decision-makers] can say [...] they don't have intentions of doing [anything that will negatively affect fishermen]. That's [what] they told us in the very beginning [of the MPA planning process]. [...] You know, we're going to participate in these conference calls because, if you're not in the room, you're on the menu. But I mean, we've heard this before. [...] We gave them all the information [fishing activity that informed MPA locations]. The minute you said Ecotrust, the only reason I didn't hang up is because you're [project team member, name redacted, was] on the other end of this call and I trust you. But they screwed us. [From] the very beginning, they did. We all did the interviews. [...] It's hard not to be pissed off.”

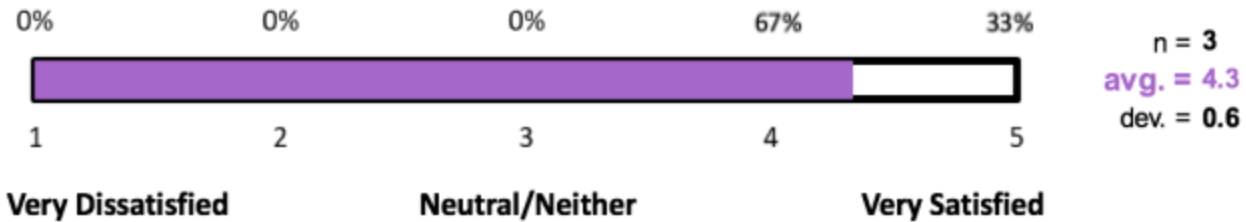
“[Decision-makers] should really respect us a little bit more than they do because everybody likes fresh seafood. And if they get rid of us [through regulations, etc.], all that seafood's coming from overseas [...] We're the most restricted fisheries in California, in the world... We're not hurting anybody. We're just trying to make a living and supplying seafood to the public. [...] You know, we all have families, we are all trying to make a living. We respect the ocean. We're not polluting it. I don't know why the big push to make us into outlaws, you know?”

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



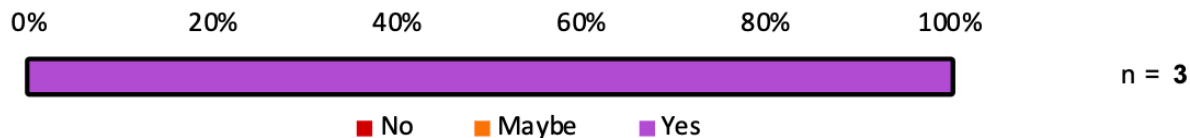
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the purple bar indicates the remaining percent of participants who responded 'Yes'. If participants responded 'No' or 'Maybe,' a red or orange bar, respectively, would appear.)



20c. Process Open-ended Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?

Discussion Summary Participants reflected on the positive experience with the virtual process and expressed their interest in participating in a meeting like this in the future.

- One participant appreciated the opportunity to share their perspectives with the project team and convey their concerns and feelings with a group interested in learning from one another.
- Several participants expressed concerns that the focus group experience was a “box checking” exercise by decision-makers, which has generally been their experience with fishery-related projects/discussions.
 - One participant acknowledged that fishermen are tired of repeatedly coming to the table, only to feel decision-makers do not consider fishermen’s perspectives and expertise as valuable or valid.

Participant Quotes

“I think the best thing about this type of [focus group experience] is the fact that at least we get to say how we feel, you know. Not that that makes things better. But sometimes it takes a little bit of pressure off the back of your brain when you can actually try and relate to someone and have other people of like minds relating the same thing. So, you know, [the focus group discussion was] not a bad experience.”

"It's been real nice talking with the other three guys here. I respect them all. And I know they're pros. They have put in a lot of time [to their fishing businesses]. [...] So I do appreciate you guys just listening to us. I hope it is productive, and I appreciate the guys [in this focus group] for putting the time in [to participate]."

"I'm glad [the project team is] doing this, wanting to know what [fishermen] think about what's going on in the ocean. But, you know, I've done so many of these. Not exactly like this, but over the years, I have. And it just kind of, like, I'm not saying you guys are checking the box. But basically, that's what they've done in the past: OK, we got the fishermen's input, let's check the box. We don't need to hear from them again."

"Do I trust [this type of conversation?], no. Because we've been screwed before, but we'll keep coming back to the room, you know, and we'll see where it goes. All [the project team] can do is take the message."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network *Members of Santa Barbara's Commercial Fishing Community*

The Marine Protected Area (MPA) Human Uses Project Team¹ is hosting over 30 virtual focus group conversations with fishermen throughout California from July 2020 to February 2021. The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Santa Barbara

Date: Monday, August 31, 2020

Participants: Harry Liquornik, Paul Teall, Chris Voss, one anonymous participant

Overview

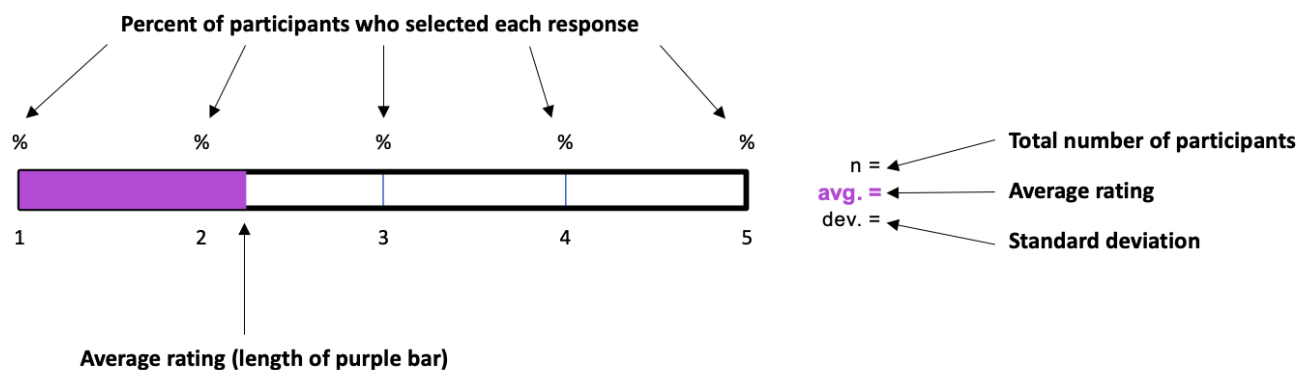
On August 31, 2020, four commercial fishermen operating out of Santa Barbara participated in the third focus group conversation. A high-level summary of the conversation is captured below, including:

- the numerical final scores (via Zoom polls) for questions asked within each theme;
- a summary of participant's perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

Guidance for Interpreting Figures

There are 15 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 13 and 19 that display all of the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

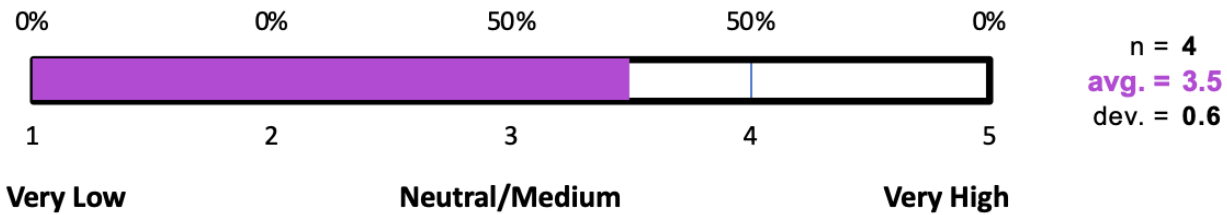
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: South Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2011-2015, South Coast](#)

Our Project Team would like to express our appreciation to the four Santa Barbara fishermen—Harry Liquornik, Paul Teall, Chris Voss, and one anonymous participant—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary In terms of the current health and sustainability of marine resources in Santa Barbara, participants reported several species are doing well while others are a cause for concern, but perceived the ocean to be healthy overall.

- One fisherman believed the rock crab fishery to be generally healthy given the high recruitment levels. They added rockfish populations are cyclical and tend to follow climate patterns.
- Another fisherman identified a slight concern with seabass but considered the species to be generally healthy. They believed thresher shark and swordfish populations are doing well, and that the abundance of salmon has increased in recent years.
- One participant reported that limited algal growth around the Channel Islands is negatively affecting the sea urchin fishery.
- Another participant expressed worry about the downstream effects on fisheries, especially sea urchins, associated with the loss of the sunstar.
- One participant emphasized the importance of considering all impacts when evaluating the health of marine resources beyond fishing alone.

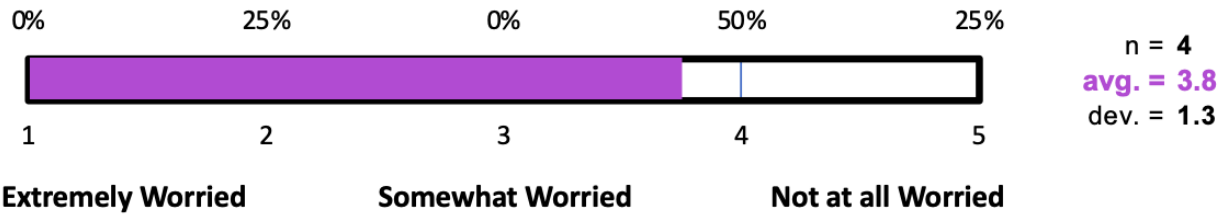
Participant Quotes

"I voted high for the fisheries I'm engaged in because the rock crab fishery, for instance, has been very sustainable, they start breeding at a very young age, and the recruitment is pretty high. I've seen ups and downs in the fisheries for the last 40 years but it's mostly been up and the downturn seems to follow climate, you know, the El Niño events and then they come back up as we go back into normal events."

"The loss of the sunstar has had a huge impact and we haven't been able to figure that one out and that's really concerning because that runs the whole Pacific Rim and the temperate zone. It's not just the North Coast, it's down here and runs all the way up. So that one's really puzzling and we don't know what did that."

"I'm optimistic about the overall underlying fundamentals of the [ocean] system's ability to be productive and robust because we see massive seal populations, massive dolphin populations, and then the whale populations are, you know, in such great shape."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary When reflecting on the future or long-term health of marine resources, participants expressed some worry regarding changing ocean conditions into the future and the effects future management decisions may have on commercial fisheries.

- One fisherman shared some concerns related to warming ocean temperatures and sea level rise. They were also worried about the effects of receding kelp forests negatively affecting the abalone fishery, particularly for the North Coast, in addition to the die off of starfish.
- All participants indicated they were concerned about future closures and reserves intended to meet target percentages of protected areas (e.g., Assembly Bill 3030), and how this may lead to increased fishing pressure in some areas.

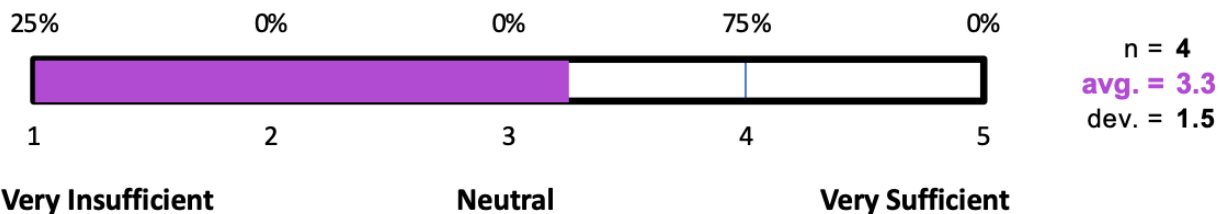
Participant Quotes

"[. . .] and the general concern about ocean warming. And so, my mind is a slight at this point, recognizing that, you know, science is indicating sea level rise and continued high water temperatures as a result of climate change [. . .] but we're not seeing really dramatic effects from things like ocean acidification. So I just went with us slightly concerned because right now, right here, we're seeing issues, but they're not catastrophic in any way, shape, or form."

"I heard testimony from the proponents [of Assembly Bill 3030] that they said they wanted 30% with the ultimate goal of 50% closure or reserves, which will create areas that aren't tapped at all and areas that have too much pressure. That's one of the biggest concerns that I have. That's why I have doubts for our future that management is going to go politically correct and shut fisheries down [. . .] the goal is to take half the state."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants expressed similar views related to the level of access to commercial fish resources for fishermen from their port with regard to restrictions that inhibit access, diversity of fisheries, and equity.

- Several participants emphasized the negative effects area closures have had on their ability to access the fisheries they participate in. One fisherman estimated they lost about 40 percent of their fishing grounds through the Marine Life Protection Act Initiative, while another fisherman highlighted related effects to the sea urchin and dive fisheries.
- The majority of participants stressed the importance of fishermen from their port being involved in multiple fisheries to support their livelihood. They identified not being allowed to harvest several species in a single fishing trip as a barrier to access.
- One participant explained how fishermen need a variety of different permits to support a living which can be costly.
- One fisherman described the port's commitment to increasing local level access into the commercial fishing industry by subsidizing infrastructure to support the fishing community in Santa Barbara (e.g., subsidizing slip fees, providing space for gear storage).

Participant Quotes

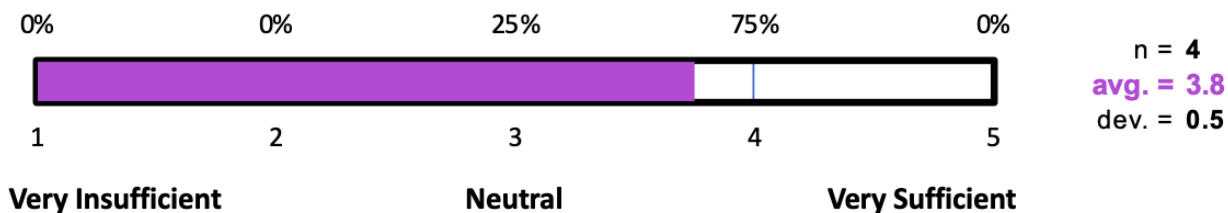
"I rated [access] as insufficient because of the amount of grounds they take away from us. I mean, although we all are making it work, I don't personally see any benefits for my fisheries by taking away our fishing areas that, in the last 40 years that I've been harvesting out there."

"It's extremely important to be [in] multiple fisheries because things are cyclical, markets are cyclical. It's pretty hard to make it on just a single fishery."

"It's basically like making a law outlawing carpooling [not being able to bring in multiple species in one trip without the proper permits or depending on a fishery's regulations]."

"[. . .] we're currently trying to secure shoreside space that we can offer to the fishing community, to those that need it [. . .] It's a community objective to, I guess, help bring about some equity to make it easier for guys."

4. **Income from Fishing** Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary When discussing income and livelihoods from fishing, participants indicated more established fishermen are in a better position to support themselves and their businesses compared to new entrants, but that some fishermen, regardless of experience, face challenges related to the costs of fishing and living in Santa Barbara.

- One participant shared while their fuel costs and slip fees have increased, the cost of fishing has stayed relatively the same because the price of their product has gone up as well.
- One participant estimated the income for sea urchin fishermen has dropped to about 40 percent in recent years.

- Another participant expressed some concern about how expenses will increase into the future with regard to surtaxes and carbon taxes resulting in higher fuel costs.

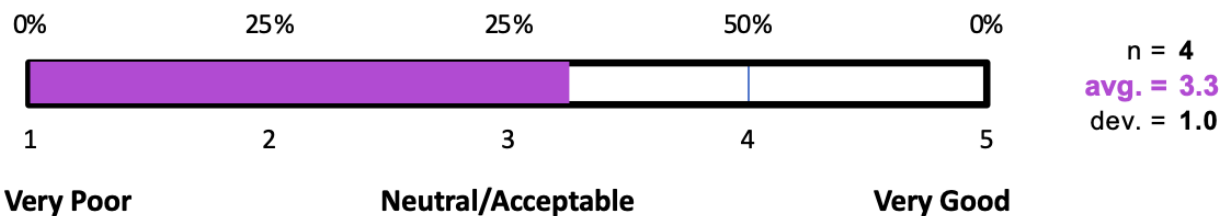
Participant Quotes

"If you are a lifelong fisherman, that's all you know. I mean, the guys that get other work are the guys that had something else going on before they became fishermen. If you're a fisherman, then you make it work by fishing, and everybody that I know is doing okay with the income [. . .] no one's getting rich at it. But we're all doing fine, for the most part."

"I wouldn't recommend my son starting out in a fishery down here because of the cost of entering it. The cost of living is so much more [in Santa Barbara] for the new people that are getting into it. The idea of starting a family and buying a house in Santa Barbara is fairly restrictive."

"I wouldn't want to be a guy that just dropped a big load of money into a new boat and try and pay for it with sea urchins right now. It'd be a pretty daunting prospect."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary When discussing markets, participants noted the importance but difficulty of direct and local marketing and the challenges associated with export and international markets.

- Several participants identified the potential for more product to be sold locally.
 - One participant explained that when cold storage space is available, it helps improve fishermen's ability to supply local restaurants, especially to buffer the availability of product with frozen options when one or several fisheries are closed.
 - One fisherman was surprised how restaurants in Santa Barbara prefer to do business with distributors rather than local fishermen, but that they have slowly been able to increase direct marketing to restaurants and the public in recent years.
 - One fisherman stated that markets for shark have declined significantly.
- One fisherman highlighted the negative effect imports from Mexico have had on their ability to market seabass.
- One participant explained that the product they do not sell to restaurants, they can sell through the Santa Barbara fish market and the local Community Supported Fishery Program. They added there was a lot of competition for salmon this year, but that it is difficult to market halibut, seabass, and shark.

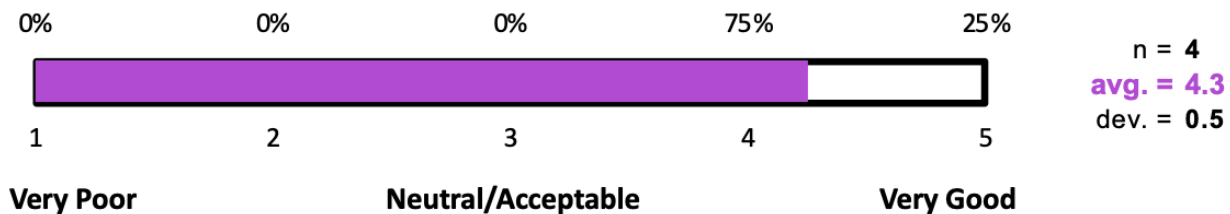
Participant Quotes

“The local markets, you know, we don't have a big choice, there's boats that sell to out-of-town markets, but locally it's okay. I mean, the local markets pay low but they've got a high cost of living in operating costs.”

“We started [direct marketing] about 10 years ago, just real small, couple of restaurants. Actually still most of our restaurant accounts are in LA. It's kind of interesting. A lot of Santa Barbara restaurants just want to do one-stop shopping. It's a little easier for them to deal with bigger distributors. It's just kind of the nature of Santa Barbara. You would think, you know, for doing sea urchins that every chef in town would be at the harbor grabbing urchins, but not the case.”

“I go through buyers. A lot of it through the Santa Barbara fish market and then a little bit through other markets, but the other markets, the little specialty markets, It's really hard to connect. They'll tell you that we need 200 pounds on Tuesday and that's not how fishing works. So, and then there's times when I catch a lot of fish and, like, in the little dock-to-dish markets, can't do that. So basically, there's only, as far as the majority of the larger loads of fish goes through, one market in town here.”

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants discussed the availability of infrastructure in their port, especially as it relates to fishermen being able to fulfill their markets.

- Several participants highlighted the strength of the infrastructure to support fishing needs in Santa Barbara, including the boat yard, two marine supply shops, dredging, cheap ice, a fuel dock, and a dry dock.
 - Another participant explained the initiative to develop more community-based cold storage space for fishermen to process and freeze their product so they can engage in more direct and local marketing.
- The majority of participants believed the public hoists are an important asset for the commercial fishing community.
- Several participants noted the importance of subsidized monthly slip fees for commercial fishermen in the area, but that only a few docks are allocated for commercial fishing use. Others have to pay higher fees for private slips.
- One participant explained how a local organization, Commercial Fishermen of Santa Barbara (CFSB), works to ensure fishermen have equal access to available infrastructure in the port.
- One fisherman was concerned about the future availability of infrastructure outside the harbor.

Participant Quotes

“As far as our local facilities. I think we've got probably the best port, up and down [the California coast]. I was just in Monterey fishing salmon - you can't get ice in Monterey Bay in three ports. There's no place to get ice, you can't sell your fish on your own. You have to go through somebody else that's going to charge you 30 or 25 or 50 cents a pound to unload you. Santa Barbara, we have the best”

“So we would make it kind of community-based cold storage so that we would, just as we do with the slips or with the boat and the gear storage, it would be a first come first serve resource [. . .] But also we recognize that there is value in creating an opportunity for fishermen that are so inclined to have some of their catch processed and then freeze it and direct market it maybe throughout the year [. . .]”

“The infrastructure [name redacted] has spoken to outside of the harbor, being able to have storage, cold storage, mechanics, machine shops, stuff like that, that's going to be problematic for Santa Barbara, just because, you know, it's expensive and popular and these kind of areas, don't generate a lot of tax base for the city so they're more than happy to rezone them. I call that the perverse incentive.”

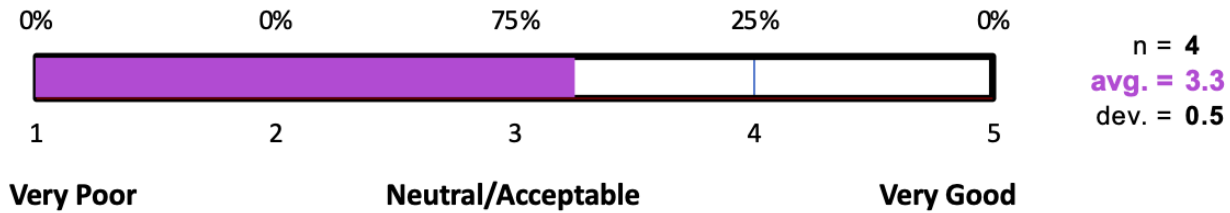
COVID-19 Impacts

Discussion Summary Participants explained the effects the pandemic has had on the Santa Barbara fishing community, and the ways in which they have been able to slowly recover.

- Several fishermen explained how COVID-19 affected their markets this year.
 - One fisherman lost about 80 percent of their restaurant accounts in a span of two weeks but was eventually able to pivot to individual sales at the weekly harbor market and through an online store. However, they have yet to fully return to their previous sales levels because of low demand for their products.
 - One fisherman explained how their halibut and seabass markets were badly affected by the pandemic, but how they were able to fish for salmon this year because the salmon markets are strong.
 - Another participant shared how they saw the early effects on the lobster fishery, which relies heavily on the Chinese market, as an indication of larger scale market problems related to the pandemic. They anticipate more fishermen will engage in direct marketing to compensate for the loss of international markets. One participant highlighted that fishermen are prepared to direct market lobsters to large population centers near Santa Barbara, including Los Angeles and San Diego.
- One fisherman communicated the resilience of the commercial fishing industry amid the pandemic and how it had catastrophic effects early on, but that local non-profit organizations donated to CFSB which allowed fishermen to process and freeze their catch and deliver it to the local community Food Bank.

Well-Being, Social/Political

7. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary When discussing labor concerns, participants indicated that recruitment and retention of participants into the commercial fishing industry is better now than it has been in recent years but that it still fluctuates.

- One participant described the older commercial fishing fleet in Santa Barbara and added that many fishermen are close to or at the age of retirement.
- Another participant explained how the level of recruitment is often associated with whether people see a future in the commercial fishing industry, given the continued loss of fishing grounds. They noted the current recruitment of younger fishermen into the industry is high and believed this is related to the financial support they receive to help them enter the industry (e.g., through inheritance).
- The majority of participants stated it is difficult to find experienced crew members.
 - One fisherman suggested new entrants be required to have participated in a fishery before they enter the industry.
 - Another fisherman explained the financial liability of having a crew which discourages some fishermen from hiring a crew that could hinder their bottom line and/or be the next generation of commercial fishermen.

Participant Quotes

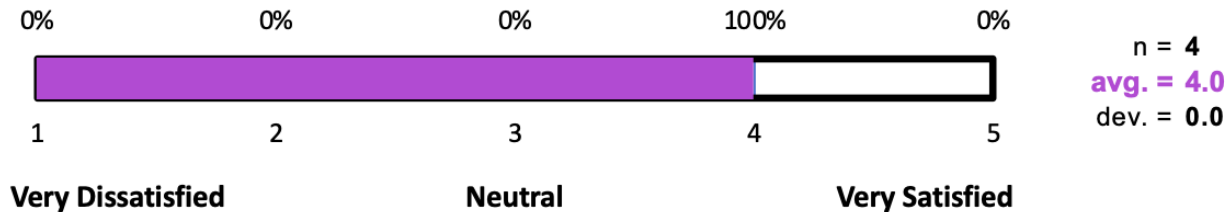
"I have my son fishing and he's essentially taken over for me and there was a measure of recruitment required there. You know, he could have done whatever he wanted to. And so I had to kind of suggest to him this was a good choice. And I don't think I would have done that 10 or 15 years ago because [. . .] there was a period of time when it looked as though we were going to continually lose ground and there would have to be even more attrition over time as a result of being displaced by protected areas. But I think we're hopefully turning that corner [. . .] I think there's a future in the fisheries and despite the barriers of permit purchase and the cost of doing business in this context I believe there's been an influx in Santa Barbara, in particular, of younger, aggressive guys that are working really hard and being successful."

"For the new recruitments, the quality of the labor pool, it fluctuates, I mean there were times where it was really hard to find a quality crewman and then you find someone new and they last for a few years and hopefully they enter the fisheries and become part of the young pool that we're seeing in the harbor now. There was, I don't know, 10 years ago, there weren't nearly as many young fishermen entering the fisheries and now it looks very promising."

"I'm neutral on the crew. I haven't had a crew in 30 years [. . .] Everybody I talk to says you can't do it by yourself and it's not a job that [. . .] a crewman is going to make a living wage at, I mean, I don't know anybody that's making much money at it. And the liability end of it - I don't really

want a crew in the boat for that either [. . .] If somebody gets hurt on my boat, you know, there goes my retirement.”

8. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary A majority of participants explained they are generally satisfied with their jobs as commercial fishermen.

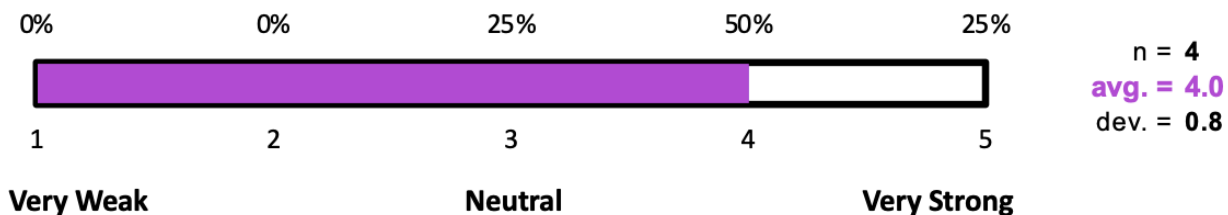
- One fisherman shared they are their own boss and that job satisfaction varies but for the most part, they like what they do, especially when their catch and markets are good.
- Several participants indicated fishermen love their jobs, otherwise they would not be fishing for as long as some of them have.

Participant Quotes

“Yeah, with the job satisfaction, I don't think any of us has been doing this for as long as we have if you're not pretty darn satisfied with it.”

“I rated [job satisfaction] satisfied with everyone else, almost borders on very satisfied. I love my job and the security is certainly good. The positives outweigh the negative by far. The level of stress fluctuates with the amount of wind, and I see the [work-related] stress in my life is very low.”

9. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Overall, participants reported they felt social relationships within the Santa Barbara fishing community were strong and that fishermen generally supported one another.

- Several participants noted there are groups within the community that get along better than others, but that overall they have learned to be friendly with each other.
- One participant reflected on how fishermen used to interact more outside of fishing than they do now.
- One fisherman explained how the CFSB board has representation from different perspectives within the community and how it tries to address challenges that can benefit the community as a whole.

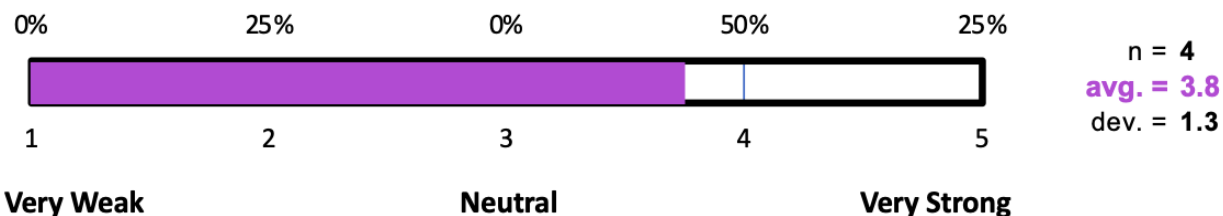
Participant Quotes

"There's always going to be factions in the fleet. We're our own worst enemies. We don't necessarily get along, but we all admire each other for our jobs. And I mean, you see a guy, you might not like his fishing techniques because he's a little too aggressive, but at the same time we got to give him credit for catching a lot of fish."

"It's a small harbor so you learn pretty quick you better get along. Otherwise, life's gonna be difficult."

"We just essentially re-upped our board for CFSB with seven guys that volunteered to be board members. That's the way we try to structure it is that each of the seven represents a gear type. So we get the diversity of perspectives within our board's function and in that way too we pick challenges that are designed to elevate the entire community and the entire port."

10. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary There were similar views with regard to the fishing community's strong relationship with external groups.

- One participant explained the harbor is required to support the commercial fishing industry because of the large amount of economic activity fishermen generate for the city each year. As a result, city leaders and volunteers often engage with the fishing community to help fishermen meet their needs, especially in times of crisis.
- Several fishermen believed the fishing community has broad representation in local political processes. Conversely, several participants believed there is a lack of support for the commercial fishing industry among state elected officials.
- One fisherman identified several individuals that have helped to increase the capacity of the local fishing community, including the CFSB executive director and members of the Harbor Commission.

Participant Quotes

"This port's always been pretty well represented. I think a lot of it probably goes back to the oil spill in '69 and, you know, a lot of guys that fished in that harbor early were kind of pioneers in that respect. So it's carried on a long legacy in the harbor there. It's been a good thing."

"We had a number of different fishermen participate in the city council meeting[s] and stood up and spoke as well as some city leaders. [. . .] We can pull together and get good representation."

“Sometimes it's real difficult to get support on our state representatives because they are more concerned with the party position rather than their local community. And I think that in the future we need to really push on our local city council to push on them.”

Well-Being, Overall/Additional Comments

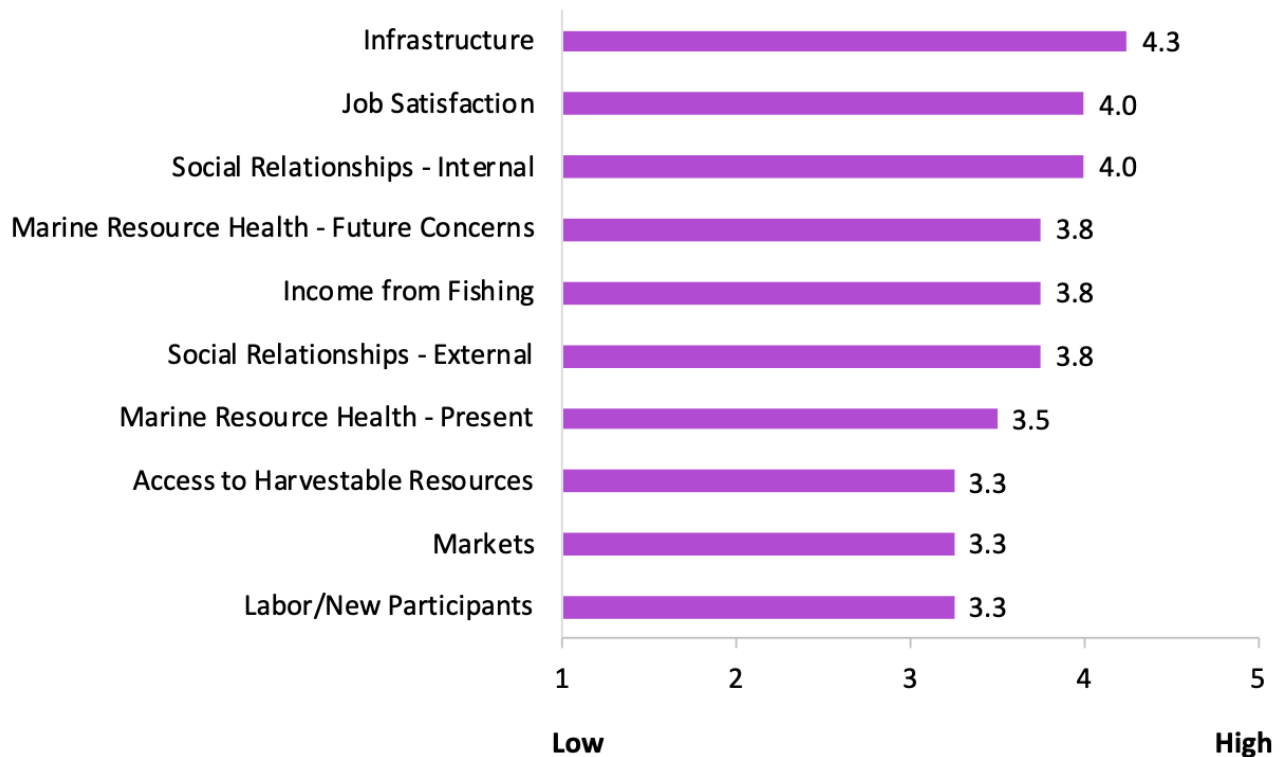
11. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants offered several suggestions for how state managers and the local Santa Barbara community could better support the local fishing industry.

- One fisherman recommended managers not use area closures to achieve ocean protection because they believe closures are a simplistic solution to a complex problem.
- One fisherman suggested California Department of Fish and Wildlife (CDFW) consider the socioeconomic impacts of their decisions as managers. They gave the example of CDFW not allowing fishermen to sell frozen lobster tails, which could have increased economic benefits for fishermen including being able to sell product even when fisheries are closed.
- One participant would like to see more social awareness of the local commercial fishing industry, including increased engagement in the local fishermen's market.

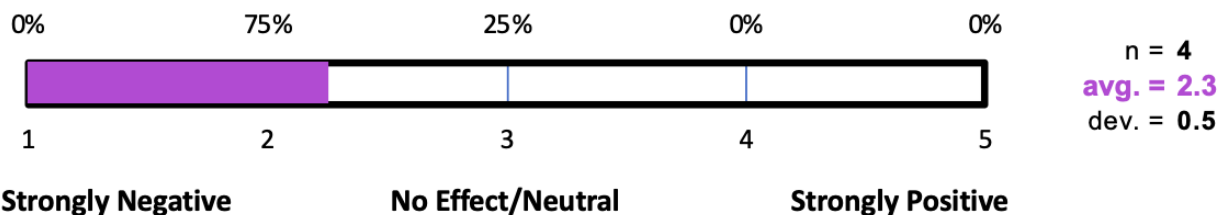
Perceptions of Fishing Community Well-being, Average Responses for Questions 1-10



Perceptions of MPAs

MPAs, Outcomes/Effects

12. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Strongly Negative

No Effect/Neutral

Strongly Positive

Discussion Summary When asked about ecological outcomes or impacts from the MPA network, participants reported they have seen little to no positive effects on marine resources and, in some cases, MPAs have had a negative effect on marine resource health.

- Participants believed the MPAs have not had any effects on fishing for halibut, rock crab, or sea urchin.
- Several fishermen explained the MPAs have created more pressure on marine resources outside MPAs due to compaction along MPA boundaries.
- One fisherman identified some increase in the abundance and size of sedentary species in MPAs like lobster, but that they are still subject to environmental conditions that MPAs cannot protect

against (e.g., toxic runoff, ocean acidification). Another participant noted they have seen some species spilling out of the MPAs.

- One participant described how it is difficult to compare the abundance of species within and outside MPAs without knowing what research is being done, especially for species that move a lot.
- One fisherman explained how a net benefit to marine resource health would result from allowing some take in MPAs where it is currently not allowed.

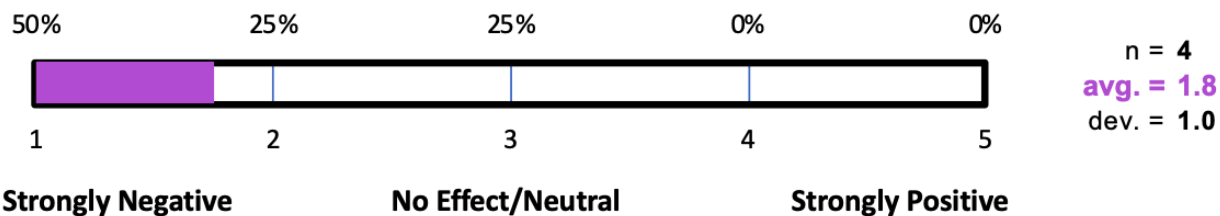
Participant Quotes

“From a purely resource perspective, the urchin fishery hasn't gotten any benefit [from the MPA network]. We kind of knew this going into it. Also, because urchins are sedentary. They don't move. So essentially, it was really a loss of [fishing] habitat.”

“Obviously, the [. . .] sedentary species clearly have some protection [but] the MPAs are still exposed to warm water events and ocean acidification or even toxic runoff, for that matter, and so they're not entirely protected. They're not ‘marine protected areas’ because there are these broader scale impacts that can influence them.”

“There's all these examples where you could allow some measure of small take in order to keep things going. But they [CDFW] don't consider the input: that an MPA has as a precaution, it exists there now as a no-take zone and that it has some measure of resource in it that we won't impact.”

13a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 13b. *MPA Effects - Overall* which summarizes the conversations related to questions 13a and 13b.

13b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary When discussing livelihood and overall impacts from MPAs, all participants reported the negative effect MPAs have had on fishermen from their port.

- One participant explained what occurred following MPA implementation was what they expected with regard to the sea urchin fishery experiencing accelerated attrition and movement to other ports. They added that the MPAs made fishermen feel like the state did not value commercial fishermen.
 - One participant recounted the loss of some of the gill net fishery, and believed they were specifically targeted during the MPA implementation process.

- Another participant estimated the sea urchin fishery lost about 80 percent of fishing grounds. In some cases, these were areas fishermen spent years learning how to fish. They added this loss was one motivator behind reducing the sea urchin fleet.
- Participants highlighted the fact that fishing is not easy in general, but that MPAs have made it more difficult to be a fisherman.
 - Several participants described the increase in crowding, displacement, and compaction as a result of MPAs because there is less area available to accommodate fishing activity.
 - One participant explained how the MPAs have forced fishermen to travel further and in dangerous weather conditions; one participant left the lobster fishery because they did not have the boat capacity to do so.
 - A couple participants emphasized how fishermen are forced to anchor in unsafe conditions outside MPAs. Those that are engaged in federal fisheries with a vessel monitoring system (VMS) must report when they think they are going to transit an MPA even though they cannot know this beforehand since they can not predict the weather. One participant added that these rules are unfair and unsafe for fishermen, and that the VMS can easily detect whether they are fishing in the MPAs.
- One participant explained how fishermen went to many meetings at the time of MPA implementation to understand what was happening and to stay informed.
- One participant believed there was a public campaign to portray the fisheries as overfished to justify the need for MPAs.
- Another participant worried the MPAs would lead to more proposals by environmental groups to remove area from fishing.

Participant Quotes

"We've eliminated a lot of areas that we could fish in weather [due to the MPAs] the coast is now essentially eliminated and that was an area we could still fish in weather a lot. So it definitely increased the hazards of fishing and the time and effort taken to go fish especially when the weather's up."

"The MPAs are making our jobs harder, but our jobs are never easy so we have an ability to catch fish, even if we have to go to different areas to do it. So it's harder to make a living, because of the extra areas that we have to travel to."

"That particular little area that they took out [around San Miguel Island] was, I would say almost criminal, what they did there because they were specifically targeting a fishery that they didn't like; they didn't need that little chunk of area there."

MPAs, Discussion of Specific MPAs

14. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants emphasized both state and federal MPAs in the area have had negative effects on Santa Barbara fishermen.

- *Campus Point State Marine Conservation Area (SMCA) (No-Take), Naples SMCA, Gull Island State*

Marine Reserve (SMR) and Federal Marine Reserve (FMR), and South Point SMR and FMR: These MPAs have had very high negative effects, particularly on urchin fishermen, as they were prime fishing grounds for Santa Barbara based fishermen.

- *Harris Point SMR and FMR, Judith Rock SMR, Richardson Rock SMR and SMR, and Gull Island SMR and FMR:* These MPAs encompassed important fishing grounds in relatively safe or protected areas from the weather causing fishermen to be displaced into more dangerous areas. One fisherman stated they lost almost half of their fishing grounds as a result of the implementation of these MPAs. They added that since San Miguel Island is almost completely surrounded by MPAs, fishermen are forced to fish and anchor in areas that are more susceptible to dangerous wind and wave conditions. The Harris Point FMR was identified as an area that is particularly important for anchoring during unsafe ocean events.
 - *Judith Rock SMR:* This was a productive area for rock fish and rock crab before it was turned into an MPA.
 - There were existing special closures around San Miguel Island before MPA implementation, and the area is now about 50 percent restricted. Fishermen would like to see a reduction in the amount of restricted areas around San Miguel Island.
- *Naples SMCA, Campus Point SMCA (No-Take), Point Conception SMR:* These were productive lobster areas that fishermen can no longer access.
- *Vandenberg SMR:* Salmon trolling is no longer allowed in this area due to the MPA. Fishermen do not understand why salmon trolling is not allowed in this MPA while it is in other MPAs in the state, given that salmon are a pelagic species and do not stay within MPA boundaries.

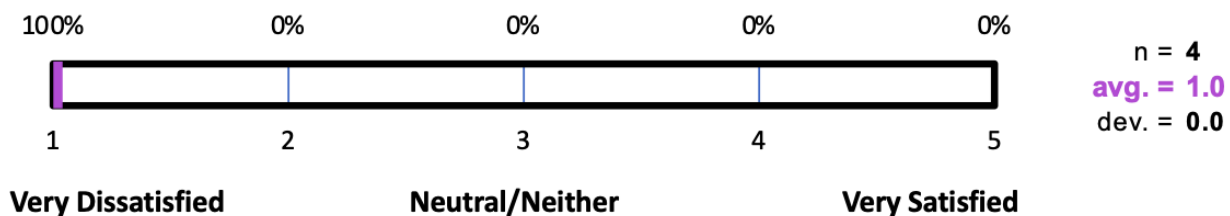
Participant Quotes

“For me in particular, the Harris Point closure has affected me in northwest conditions when the swell’s big. [. . .] There’s that whole question of why the VMS is restricting us from accessing these safe harbors, so I was in trouble for anchoring inside of Harris Point in a storm and I had to go to meetings and answer questions and they, you know, treated me like a criminal.”

“Judith Rock was a nice area to fish. Not sure why they decided to take a little patch of that out there. Rockfish and the rock crabs are both excellent fishing in there and now it is this little sliver that they took for who knows why. They took so much area out of San Miguel Island [. . .] If you look at the map [of MPAs], it’s practically closed.”

MPAs, Management

15. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants were generally dissatisfied with the management of the MPA network, especially with regard to the implementation process.

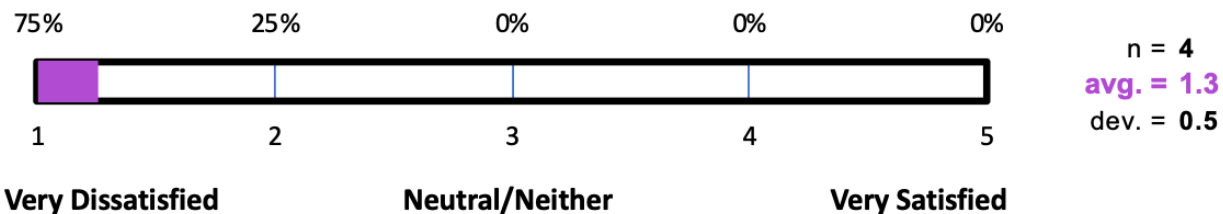
- One fisherman explained how the areas that became MPAs were the areas fishermen indicated they did not want taken away. Another participant commented on the lack of meaningful engagement with fishermen throughout the MPA designation process.
- One fisherman suggested the MPAs could be used to understand broader ocean changes, but that the politics surrounding MPA implementation and management overshadow the ability to achieve common objectives.

Participant Quotes

“The one thing that I think is extremely negative is that when they originally set up the plan, they asked fishermen where the areas were they didn't want the MPAs, and that's right where they put them, in some really prime turf [. . .] they took some really, really productive turf. So that, I mean, they targeted areas that we told them we wanted to keep.”

“We should be thinking creatively about how to do smart things with the areas that are closed, the very least of which is using them as a baseline for our understanding about what abundance can look like if there's no human impact on some of the populations, which is a critical scientific number that you need to create a high quality stock assessment.”

16. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants believed the MPA monitoring program is insufficient to monitor MPAs and the program does not support collaborative research with fishermen.

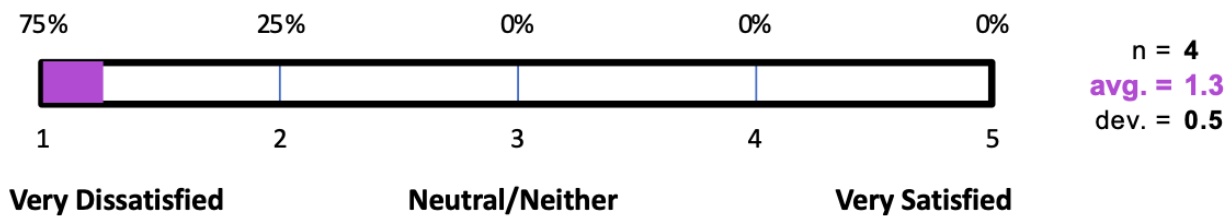
- One fisherman did not know of any studies being done on the rock crab populations in the MPAs.
- Another fisherman explained how they offered to help with MPA monitoring studies to better understand what is happening inside the MPAs free of charge, but that their proposal was turned down.
- One participant expressed general frustration with current MPA monitoring including missed opportunities in informing fisheries management and general concern that there has been little to no monitoring of MPAs.

Participant Quotes

“You could get a baseline on unexploited stock, that’s a critical piece of information when you're trying to build a stock assessment of what an unexploited stock looks like. And so you could utilize the MPAs as a means to help effectively and sustainably manage in between [the MPAs]. None of that's been done, they didn't do what they were told to do as a means to make what the MPAs being in existence could have benefited fisheries management moving forward.”

"I even asked if I could do a study for free to see how the fishing was in a closed area, which especially would have been important during one of the natural fluctuations and downturns in the crab fishery - others would be interested to see if the same thing was happening in the areas that had been harvested - but they rejected that, saying they didn't have the funding. When I said I'd do it for free, they still rejected me, so very dissatisfied with that one."

17. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary One participant perceived the enforcement of the MPAs to be unfair and inconsistent.

- They questioned why some people are exempt from MPA regulations while others are penalized even when they have not broken any rules.

Participant Quotes

"Their only intention is to enforce people to break the law so that they can collect funds."

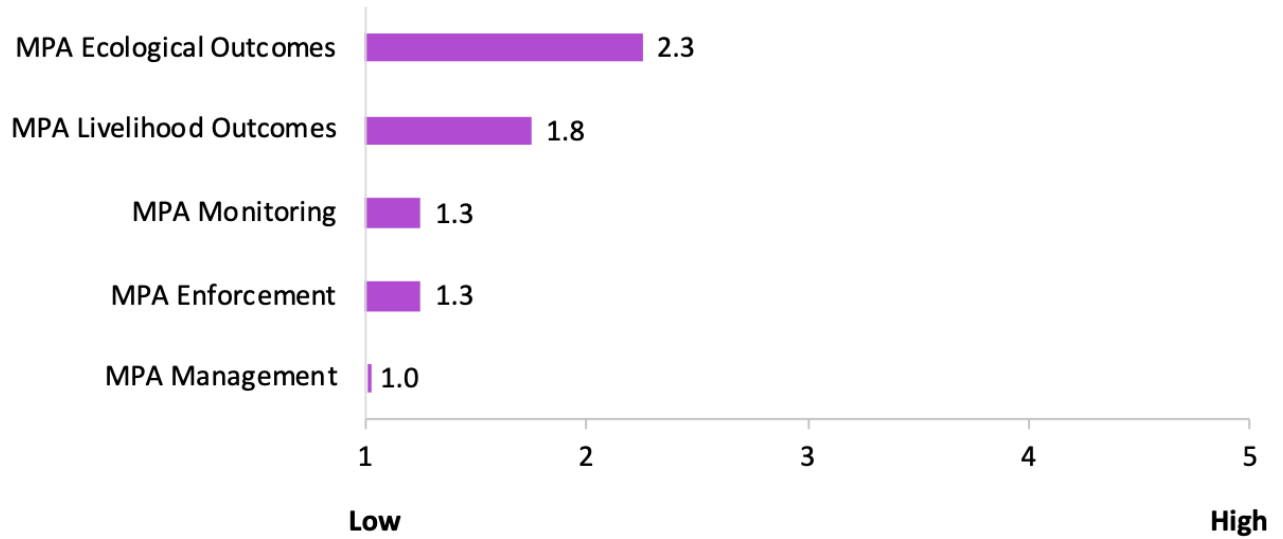
"They're enforcing it when they happen to see a [commercial fisherman] guy in there or if they happen to catch you with your VMS being in an area for some reason, but they're not enforcing it at all in the sport fleet."

18. MPA Overall Any additional comments or concerns about the MPAs and MPA management you would like to communicate?

Discussion Summary Participants offered several suggestions for fisheries managers with regard to MPAs, including:

- Fisheries should be managed through gear limits and seasonal closures rather than area closures like MPAs.
- When managers consider designating a target percentage of protected areas, they must also consider all the other areas fishermen can't access other than the MPAs.
- The area inside MPAs could be used for other ocean activities, like the development of wind energy.
- MPAs should not be expanded since it would create more problems including overtaxing the resource in open areas.
- Fishermen should be able to anchor in MPAs for safety reasons.
- Managers should do a better job of engaging fishermen in MPA management and monitoring.

Perceptions of MPAs, Average Responses for Questions 12-13a, 15-17



Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network

Members of Ventura/Channel Islands Area's Commercial Fishing Community

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port Group: Ventura/Channel Islands Area Ports

Date: Wednesday, September 16, 2020

Participants: Nathan Rosser, Vitaly Sviridoff, one anonymous participant

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

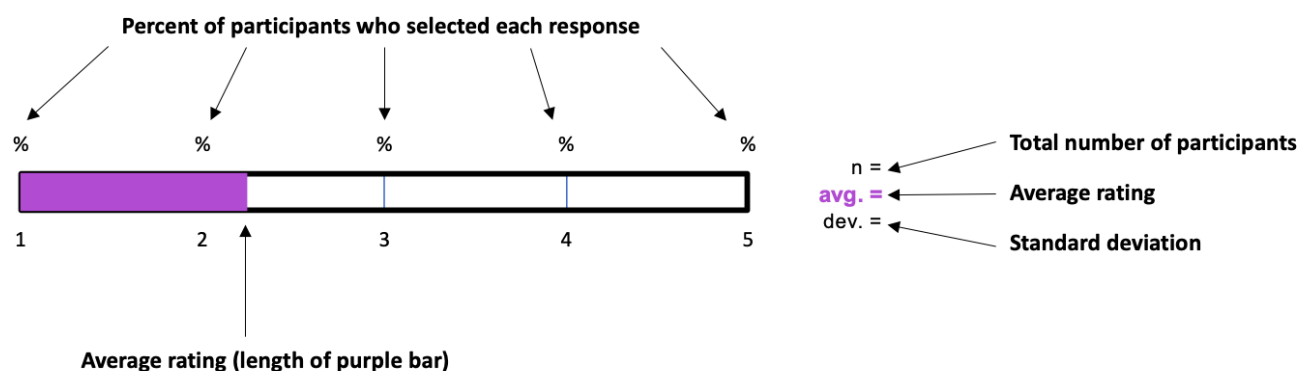
Overview

On September 16, 2020, three commercial fishermen operating out of the Ventura/Channel Islands area participated in the sixth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 13 and 19 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

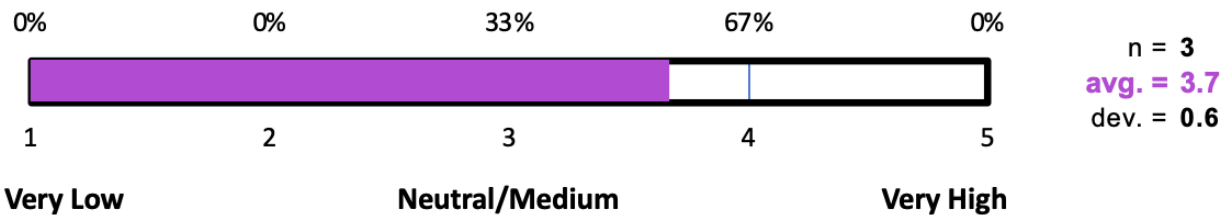
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: South Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2011–2015, South Coast](#)

Our Project Team would like to express our appreciation to the three Ventura/Channel Islands area fishermen—Nathan Rosser, Vitaly Sviridoff, and one anonymous participant—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants reported that marine resource health is cyclical and that while the species fishermen from the Ventura and Channel Islands area depend on are currently in a down cycle, the resources are generally healthy.

- With regard to sea urchin, one participant shared how catches are trending upward compared to the last several years, particularly since the 2015 warm water “blob” event. They attributed this change to increased kelp abundance and less fishing pressure.
- One fisherman perceived there to be more sub-legal or short lobsters than lobsters that could be retained in waters below Santa Barbara. They noted there is increased fishing pressure and competition in the area with more traps and lobster fishermen. Another participant believed that overall lobster abundance across size classes is high.
- One fisherman indicated that the sea cucumber fishery is currently doing well after several years of increased fishing pressure, warmer waters, and fishing regulations that shortened the fishing season.
- One participant believed that there is sufficient rock crab abundance though their catch volume is low because of where they choose to fish.

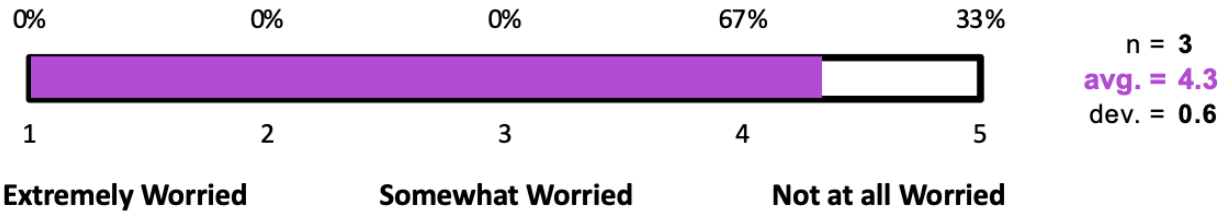
Participant Quotes

“I would say [sea urchin] catches are trending up a little bit now that we have some more kelp and because of the fact that quite a few guys [. . .] took other jobs or maybe they were already at retirement age [. . .] It just seems like there's a little bit less pressure and a little bit more seaweed so I was kind of on the line between neutral/medium and high; I guess I'll give it a 3.5 [rating]. We're not in a great place, but it was worse a few years ago.”

“I put neutral because I keep seeing less keepers and more short lobsters in our area while I'm pulling my traps. So I'll usually see like 50-50 some years, and the last two years, I've been seeing more shorts than the keepers.”

“[I've] seen a lot of sea cucumbers during the closed season and have had some pretty good catches when the season opens up so I'm seeing that resource come back and I'm pretty optimistic that in another couple years from now I would rate that one high as well, hopefully. But at the moment, we're kind of in that interim phase where we're waiting to see if the regulations we put in effect are going to do what we're hoping.”

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary When reflecting on the future health of marine resources, participants expressed the view that the fisheries will continue to improve over time given that ocean conditions are cyclical, though there was some worry with regard to ocean and climate change into the future.

- One fisherman communicated that the fisheries are managed well enough that there is not a cause for concern. They gave the example that while there are many sub-legal lobsters currently, they will grow to be of retainable size in the future.
- Another fisherman shared that the current abundance of sea urchin and sea cucumber resources and the management of these fisheries indicates that they will be healthy into the future.
- One participant expressed concerns related to the effect ocean acidification might have on shellfish populations and the market quality of sea urchins as a result of warmer water and lower kelp abundance. They highlighted the cyclical nature of marine resources, but also stated that warmer oceans may become the new normal.
- One fisherman identified human impacts on lobster, particularly increased fishing pressure, as a source of concern into the future.

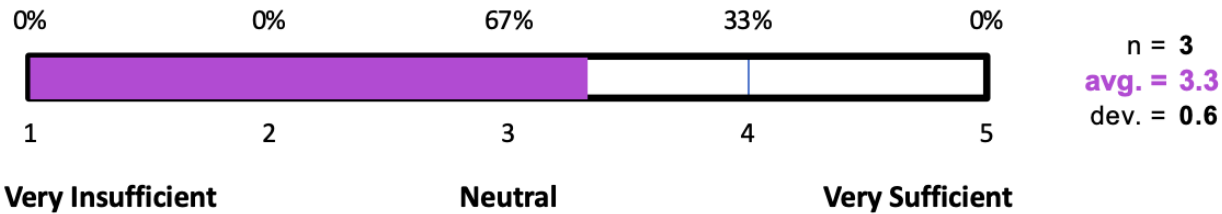
Participant Quotes

“From a resource or regulatory perspective, I’m not worried about the urchin or cucumber fisheries at all. [. . .] The thing that I’m concerned about is more just ocean or climate change and its effect on the fisheries [. . .] if the warm waters persist and the kelp is just at a lower level in my lifetime than it was in a previous fisherman’s lifetime.”

“My concern was [. . .] as long as more people come to the area, we will see less lobsters. [. . .] I’m not talking about all areas. I’m talking about one specific area which is below Santa Barbara, block numbers 653 and 654.”

Well-Being, Economic

3. *Access to Harvestable Resources* Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants expressed several positives related to access to commercial fishing resources for fishermen from their port, but noted that it is difficult to consider access without factoring in MPA restrictions which several participants noted had lowered their ratings to 'neutral.'

- A couple participants shared that there is a range of fisheries available to support commercial fishermen, including rock crab, lobster, sea urchin, sea cucumber, squid, rockfish, and black cod.
- One participant explained that there is sufficient volume of fish available off the coast, and that a fisherman's catch depends on the level of effort they are willing to put in.
- With regard to restrictions that inhibit access, one fisherman identified that there are often financial barriers to obtaining fishing permits.

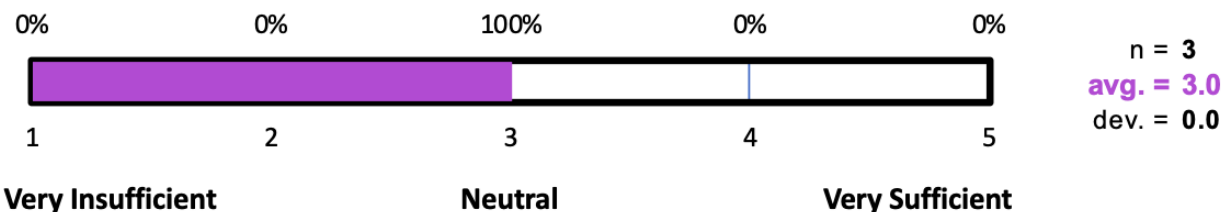
Participant Quotes

"I think my answer would probably differ a little bit if I was considering marine protected areas versus not because obviously we can't access the area. So I think that affects the answer."

"As far as diversity of fisheries, I think that's pretty good. [. . .] There's plenty you can do if you have some tenacity to figure it out."

"[In terms of] restrictions that inhibit access, there's the financial barrier to some of the permits. But I think if you really want it, you can find someone to give you the money and work hard to get. There's ways around all that stuff."

4. *Income from Fishing* Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary When discussing income from fishing, participants indicated that commercial fishing revenue is often insufficient to make a stable living.

- One participant shared that while some fishermen earn enough to support their livelihoods, others seem to struggle to make ends meet with the income they earn.

- One fisherman explained how they started fishing full-time but now earn half of their income from fishing because they have since gotten a second job.
- Another participant explained that whether a fisherman's income is sufficient depends on their standard of living and if they have a family to support. Fishermen can not live off the income earned in a single fishery; they need to diversify.

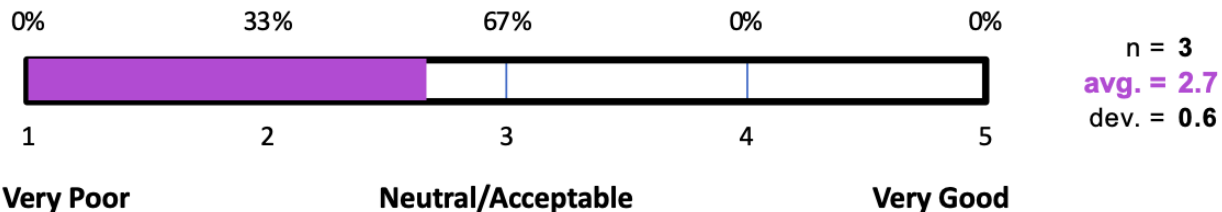
Participant Quotes

"I started out full-time fishing and then I took on another job. So I do get about half my income from fishing and the other half from the other job. I see some guys that are full time that I'm friends with and, yeah, you can definitely make a living full-time, but everybody has a different standard of living. Guys have different work ethics and different financial means and for some guys, it seems like they really struggle to make ends meet and there's some that do really well."

"I didn't feel like [this question] justified 'sufficient' because as fishermen, [our income] is never enough. And at the end of the day, it's a lot of work maintaining a boat and just all of the work that entails in keeping your operation ready to go 100 percent of the time. I think we could all use a little bit more money."

"[Fishermen] are trying to make a decent living out of what they're doing."

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants noted that, compared to surrounding ports, markets in the Ventura and Channel Islands area could be better.

- Several participants shared that buyers are charged an unloading tax in Ventura harbor, making it less profitable for fishermen to sell their product to local buyers. They added that the harbor could improve access for fish buyers in the area and should explore the applicability of market opportunities afforded to other ports, such as Santa Barbara, in Ventura.
- One participant explained how there are limited direct marketing options, which are often restricted to a Saturday market. They would like to see more opportunities and resources for fishermen to direct market their product.
- With regard to the sea cucumber fishery, one fisherman communicated how the price has been stagnant for the last couple of years and there is only one main buyer out of the Channel Islands harbor.
- One participant explained how processors are usually willing to buy sea urchin, but that the price could always be higher.

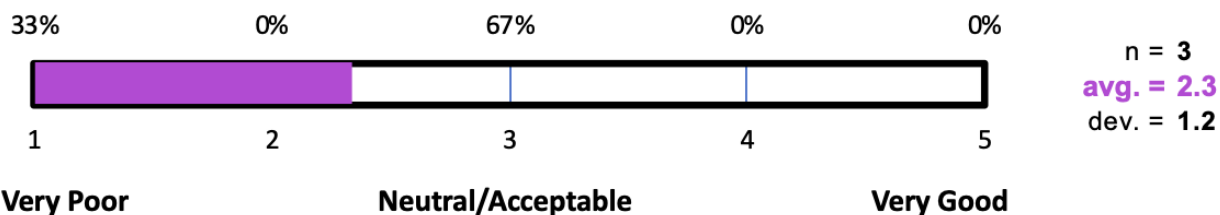
Participant Quotes

"There are not enough buyers [in Ventura harbor] and I don't think my harbor supports the buyers to come to our harbor because they charge an additional fee."

"I put neutral only because I see better markets, better harbor [in] Santa Barbara harbor. That's the best place to sell where everything gets done for the commercial fishery. And so [. . .] I'd say Channel Islands [harbor], it's somewhere in between. So it's not perfect, it's not the best. But I mean, it's okay/acceptable."

"There hasn't been much diversity [in markets for sea cucumber]. A few years ago, there were quite a few sea cucumber buyers and then last year we had two main buyers and then this year one of our main buyers didn't buy so there was only one buyer in Channel Islands harbor. So there wasn't much diversity and you're kind of a little bit worried - do you decide to stop buying or drop the price? There wouldn't be anywhere else to turn."

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants discussed the poor state of the limited infrastructure in the Ventura and Channel Islands harbors.

- Several participants shared that because there is one working hoist in the Channel Islands harbor, there are often long wait times to use it. One participant noted the harbor commission's prospects to redevelop the wharf at some point, including purchasing several operable and reliable hoists.
- Participants noted the lack of ice and other amenities in the Channel Islands harbor.
- One participant reflected on the limited infrastructure in Ventura harbor, including only one hoist, one pier, and limited slip space.

Participant Quotes

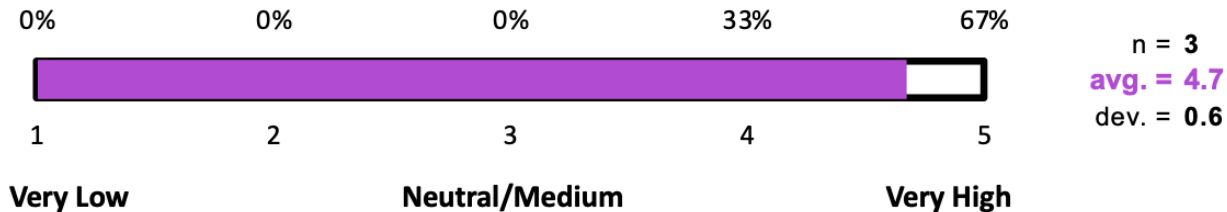
"I've been fishing out of Channel Islands harbor for 12 years now and never been able to not offboat urchins because of a lack of a hoist. Always had a working hoist. So I say [it's] acceptable. That being said, there's only one. So it can make for crowding when the weather's good. You're waiting in line to get the hoist which is annoying and if it's hot out and your catch is sitting on the deck, that's not great."

"There's no ice in the harbor. Santa Barbara, Morro Bay, everybody's got ice but Channel Islands. If you want ice, you got to drive your truck over to the ice place, get the ice, and bring it to your boat and schlep it - just lots more work."

"We have one fish hoist in Ventura harbor for all the commercial guys, we have one pier that we're not even allowed to drive on anymore [. . .] our hardware is a little bit political so I just

didn't want to get into that, but our harbor for sure is not a good harbor towards commercial fishing and our harbor is designated as a commercial harbor. So it annoys me that there's limited slip space. There's a lot of things wrong with Ventura harbor."

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port's fishing operations?*



Discussion Summary Participants described how COVID-19 had extremely negative effects on the fisheries in the Ventura and Channel Islands area, particularly with regard to markets.

- Several participants described how overseas and restaurant markets disappeared during the first couple months of the COVID-19 pandemic.
 - One participant explained how very few fisheries were operating during the first few months of the pandemic because of the few market opportunities. Fishermen with longstanding relationships with buyers had small markets to sell to.
- Another participant shared how some fisheries, like lobster and black cod, were more affected than others, like sea urchin, based on the markets they serve. Even so, when the sea urchin fishery reopened, fishermen could only sell at a very low price, and some fishermen didn't immediately return to fishing as a result.
 - One participant stated that the pandemic started around the time of year when sea urchin prices are typically low, and that current prices are acceptable but not as high as they often are for this time of year.
 - One fisherman noted that they now need to give their processors several days notice, compared to several hours before the pandemic, if they will be bringing in sea urchins. They added that this is not as much of an issue for sea cucumbers which have a longer shelf life.
- One participant shared how fishermen who engaged in direct marketing before the pandemic were able to grow their business as more people sought access to fresh seafood that they could not obtain in stores or restaurants.

Participant Quotes

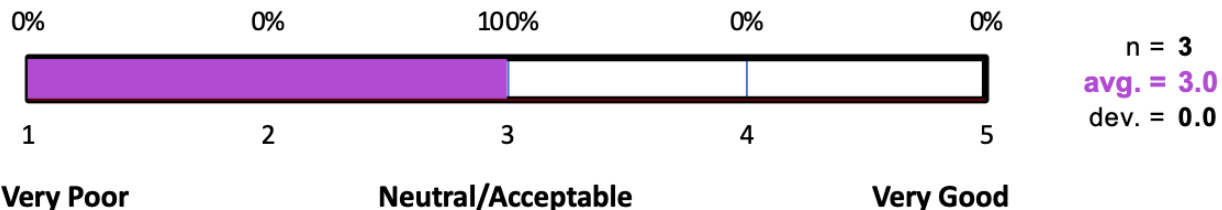
"Nobody fished for two months [due to COVID-19]. There were no markets. There were no restaurants open to sell to. The planes stopped going to China, which basically most seafood goes to, so when Trump stopped the planes that, in turn, stopped our commerce. And of course, you also have the tariffs. But with COVID, yes, it was very detrimental to the fishery."

"When COVID first hit, [the sea urchin fishery] was basically shut down for a couple of months and then when it came back, it was at a super low price and some of the desperate guys went to work for a low price, but a lot of us were like 'don't work if you don't have to right now' because if we sell our product for this low, then the processors will know we're willing to work for pennies. So I think those of us that could afford to took a few months off."

“In the past, you could not talk to your processor for weeks and then you could text them halfway out to the [Channel] Islands and be like ‘hey, I’m going to be in this afternoon with urchins’ and they’re like ‘cool, thanks.’ Now I’ll hit them up a day or two before like ‘hey, I want to work these days this week’ to make sure that it fits with their program, that they’re gonna buy.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary When discussing labor, participants indicated that recruitment and retention in the commercial fishing industry was acceptable depending on the fishery.

- One participant explained how there is good longevity in the sea urchin and sea cucumber fisheries. They described how there is a smaller number of younger divers entering the fishing industry due to low profitability, adding that the lottery system is too complex and makes it difficult to obtain a sea urchin permit.
 - Another participant recounted how there used to be more sea urchin divers in Ventura harbor.
- One fisherman stated that there are increasingly more opportunities to recruit participants in Ventura harbor because of the growing squid fishery.

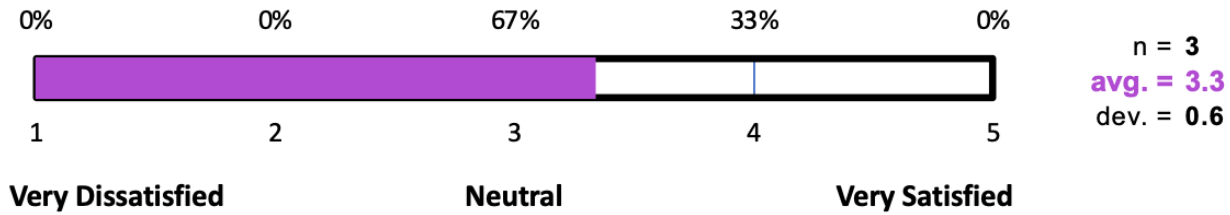
Participant Quotes

“It’s been pretty much the same characters in the sea urchin and sea cucumber game for as long as I’ve been in it. So it’s definitely retaining some guys. There is a small crew of about like three, four of us new generation divers, sort of late-20s through mid-30s, so I guess we’re kind of doing all right as far as recruiting new entrants.”

“I feel there’s probably more veterans than there are new guys but the new guys seem to work really hard and get along and they seem to be doing okay. [. . .] The money’s just not there right now but I know it [will turn around]. Everything cycles - back in the day, there used to be 30 urchin divers just in Ventura harbor. It used to be crazy. You’d have to sit at the hoist - there was only one hoist - you’d be waiting an hour to unload something because there’s ten boats ahead of you.”

“It’s not that hard to get someone new. It’s not that hard to maintain them as long as you make them money. And I feel pretty much everybody in Ventura harbor are money-makers, generally.”

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Related to job satisfaction, participants indicated that the positives of being a commercial fishermen tend to outweigh the negatives.

- One participant explained how entering the fishing industry can be stressful but that, over time, commercial fishermen are able to set their own hours and be their own boss. They added that their sense of job security is related to whether they have the physical capacity to be a fisherman.
- With regard to the squid fishery, one participant shared how job satisfaction is often related to weather and ocean conditions that determine squid abundance.
- One participant said commercial fishing is more of a lifestyle than a job.

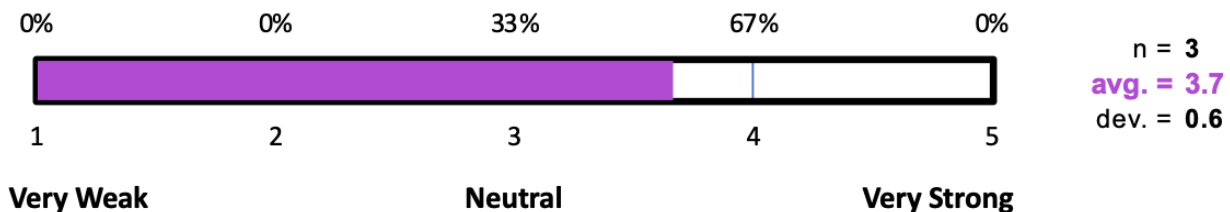
Participant Quotes

"If you like fishing, commercial fishing is the best job. [You can] work as hard as you want, [if] you don't want to work that hard, you don't have to. No one's telling you to do it. I think [. . .] it's super stressful [at the beginning when] you're trying to build a boat, you're trying to buy a permit, trying to figure out where to fish [. . .] but once you kind of get it dialed then yeah, stress level is low."

"I think that they're [squid fishermen] probably a little bit unsatisfied because the warm water chases off the squid and there's no squid right now. So there's just not the money there, [but] we're just on a little down streak right now."

"For me, there's not much stress because I'm the old guy on his way out, but I could see it being very stressful for someone that has a family and kids to feed. Everything I own is paid off already, so I definitely lead a different life."

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Overall, participants reported that they felt social relationships within the Ventura and Channel Islands area fishing community were relatively strong, though there is room for more leadership.

- Participants indicated that there are good relationships among fishermen within fisheries.
- Several participants explained how leadership has decreased and how the fishery could benefit from having designated individuals as leaders in the community.
- One participant shared that older fishermen in the industry have served as mentors for them. They added that these types of relationships are important to them because they help to pass the fishing experience to younger generations.
- Another participant explained how fishermen are, overall, willing to work together and share fishing knowledge with each other.

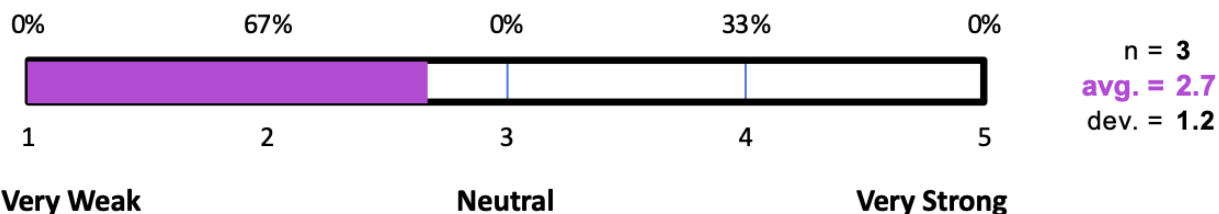
Participant Quotes

"We don't have [good] leadership. So here's the dilemma - we got [a] bad season coming up, bad prices coming up, and we don't have a person who [has] enough authority who can say to everyone 'so guys, do not finish this season' or 'do not use it for the first month or a second month because we've got a bad price. Let's wait. Let's save our resources for a little bit and get a better price later' [. . .] So we don't have those guys who are going to lead us in the right way."

"There's some strong relationships within the fishery, like a real bond there. Being a younger guy, I've definitely had a handful of older fishermen [who are] like mentors that took me under their wing at the beginning, so I'd describe those relationships as strong. And I think that's really important for passing the fishing heritage on, especially for me because I don't come from a fishing family. So if I hadn't landed in the lap of a few of these guys who really showed me the ropes, I wouldn't be where I'm at."

"All fishermen are nice, trying to share their information with each other. So, for example, like urchin divers or cucumber divers - they come up to us and say 'okay guys, you're preparing for lobster season, there is a spot and there is lobster.'"

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary With regard to the fishing community's relationship with external groups, participants believed the broader community could better support the commercial fishing industry.

- One fisherman explained that the industry as a whole is constantly being targeted by environmental organizations that have more power and influence in policy processes. The goals of these groups often do not align with those of the fishing community and it is becoming difficult for fishermen to maintain access to fisheries as a result. They added that the fishing industry is becoming too politicized.
- Another fisherman shared their experience on the California Sea Urchin Commission and with the California Sea Cucumber Diver's Association where a handful of fishermen are politically engaged while the rest of the fleet do not want to get involved. They explained that fishermen

determine their involvement based on whether they think engaging will make a difference in fisheries-related decision making processes.

Participant Quotes

"As far as harbor patrol, they're great at Ventura harbor. I just think that the harbor itself can promote commercial fishing better, especially being a commercial harbor."

"It's just all become too political; fishing is not like it used to be. It used to be great, but now [with] the environmental impact - which I understand environmental impact - but environmental groups that are against us are way more vast and way more funded than we are, and we are not structured enough to gain funding beyond the fact that we're not a fundable group. They'll sit there and eat our food but they're 'oh no, with that gillnet, he kills everything' and you're like 'hey man, then quit eating seafood.'"

"There's a small percentage of guys that are really passionate about the local fishing politics and those of us that band together and we talk a lot and exchange a lot of emails and we know what's going on and when things are happening. And when issues arise, we do something about it. We're not necessarily the most effective and we might not have a ton of meetings all the time, but it seems like there's a lot of guys that just don't really want to be involved in that, and that's fine; fishing is an independent bunch, but there's a few guys that do and those of us that do, I feel like we're pretty tight."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Several participants shared concerns related to how managers might use what they say in a manner that harms the industry.

- One participant explained how if fishermen indicate that there is a downward trend in marine resource health, more restrictions will be implemented. They do not trust that sharing this type of information will be used to the benefit of the fishery and fishery participants.
- Another participant questioned whether fishermen's input will be seriously considered in marine resource decision making or if their participation is a false front for resource managers.

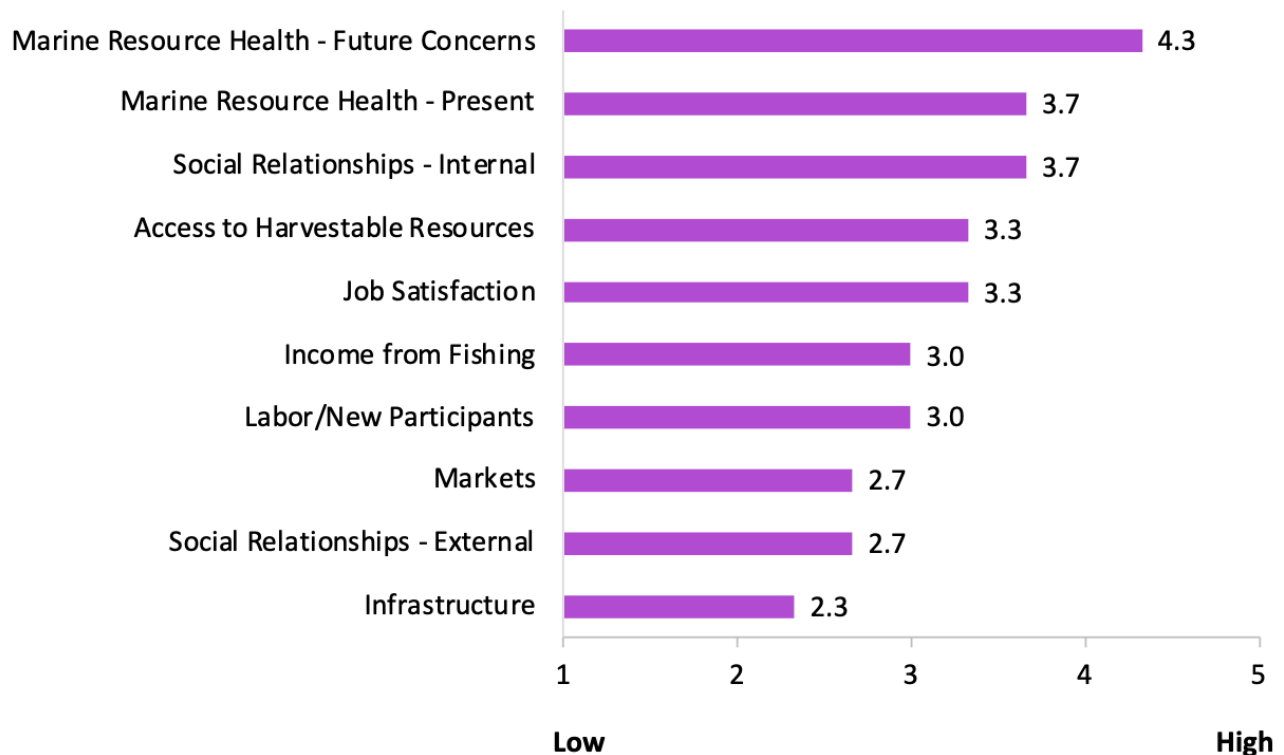
Participant Quotes

"Anytime that you show a downward trend [. . .] someone's going to try to find a way to make you [not] be able to catch more and it may not be to your benefit. [. . .] Maybe we just need to sit and wait without [managers] taking something from us."

“Doing things like this [focus group], like this MPA thing, you kind of wonder ‘okay, so we're going to devote our time and we're going to be honest and say all these things, but will it actually make a difference? Does anybody actually care, or are decisions already made?’ So that's sort of already in the back of your mind.”

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

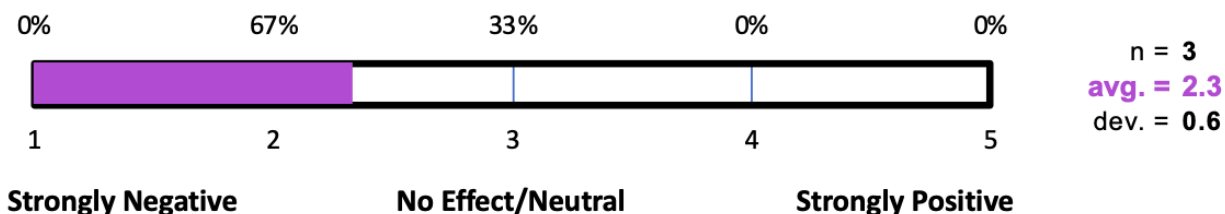
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants indicated the negative effects of MPAs on marine resources outside of the closures outweigh the improved marine resource health within the MPAs.

- One participant explained how sea cucumbers require high densities to reproduce, and that the MPAs have had a positive effect on the species because they are not being harvested.
- Another participant shared how the MPAs have had a negative impact on sea urchins because divers are forced into smaller areas. They believe sea urchin size and abundance would improve if fishing effort was spread across a larger area rather than compacted outside the MPAs.
 - Another fisherman explained how the marine resource health outside the MPAs is poorer because the closures have concentrated fishing pressure into smaller areas.
- One fisherman stated that the MPAs have had no effect on lobster populations because lobsters move out of the MPAs. They suggested that MPAs have greater benefits for rockfish than for lobster or crab.
- Another fisherman had difficulty rating the health of marine resources in MPAs because fishermen are not allowed in the closures. However, they anticipate the health of some resources has improved due to restrictions on harvests.

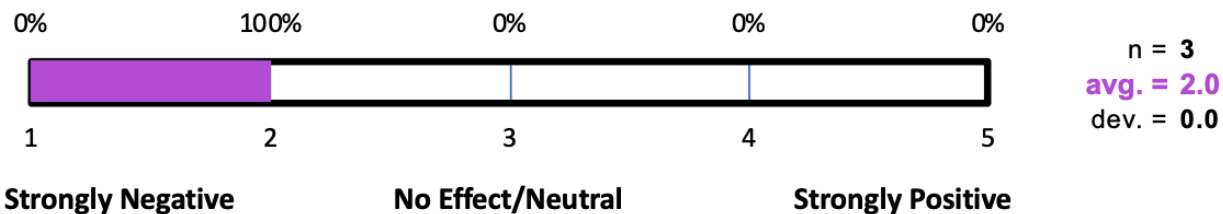
Participant Quotes

“I do think that MPAs are a good thing on a certain scale, like the science behind it and what we've seen, it's good to have little reserves to buffer the populations. For the sea cucumber fishery, I think that was really good, like those animals have to aggregate really densely to spawn and it's good to have some areas for them to do that [and] get no pressure whatsoever. So for that fishery, I would lean towards the neutral to positive.”

“With the urchin fishery, I think [MPAs are] a definite negative. [MPAs have] forced us into these small areas with so much compaction that we're all just running through the same rocks every week and measuring the same urchins. These urchins aren't going to move, they're not like lobster, they're not going to crawl across the line out there. They're where they're at and they're going to get big and grow over there [in the MPAs], and [in the] areas that are open, we're just going to keep measuring them down.”

“We're not allowed in those areas [MPAs], so we have no idea what's going on in there beyond reports from other people [conducting MPA monitoring]. Of course it's got to be doing better in there - it's not being impacted by commercial or recreational fishing.”

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* on page 15 which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall *What other types of effects or impacts have fishermen from your port experienced from MPA implementation?*

Discussion Summary Participants shared examples of how the MPAs have had a negative effect on fishermen's livelihoods and fishing behavior.

- Several participants explained fishermen now need to travel further and around MPAs to access fishing grounds. They added that because of this, fishing trips that used to take one day now take up to two or more days.
- Participants also discussed how the MPAs have decreased the amount of area fishermen are allowed to access, which has resulted in crowding and compaction outside MPAs.
- One fishermen believed that while MPAs may have some positive effects on marine resource health, these do not outweigh the negative impacts on fishermen and livelihoods from fishing.

Participant Quotes

"You have an area that's an MPA that you know you have to travel across to get to another area. So you're really only going to go this far on a day trip. So if you want to go to the other side of the MPA you're going to be doing a two day trip. So then that area might get fished less because it's like, well, I gotta have a weather window for two days and all these other factors."

"We know the MPAs at least have the potential for some positive effect on the resource, but does that positive effect outweigh what it's currently doing to the fishery? And I think the answer is no, it doesn't outweigh the negative. [. . .] But it varies from fishermen to fishermen."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific *Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?*

Discussion Summary Participants identified several MPAs in and around the Ventura and Channel Islands area that have affected commercial fishermen. They noted that many of the MPAs in the area cover entire reefs, whereas in other areas (e.g., Morro Bay), MPAs only cover a portion of fishable area and fishermen are still able to access parts of reefs.

- *Point Dume State Marine Conservation Area (SMCA) and Point Dume State Marine Reserve (SMR):* Several participants shared how these areas had good fishing habitat for rock crab and lobster and also had an abundance of kelp. The areas also protected fishermen from bad weather conditions.
 - Participants explained how they used to be able to travel to these areas on a day trip. Since this area is now an MPA, fishermen must go on overnight trips to travel around the MPAs to arrive east of Paradise Cove Pier where there are better fishing grounds.
 - With regard to safety, fishermen now tend to avoid the open area around these MPAs because they do not want to get caught in bad weather or have to travel back around the MPAs in the late afternoon.
 - Because fishermen have to travel further around these MPAs, they must use more fuel to get to their fishing grounds.
 - Participants also reported how there is greater compaction of fishing effort outside

these MPAs.

- *Anacapa SMCA and SMR*: Participants shared that because these MPAs cover almost the entire frontside of Anacapa Island, there is increased fishing pressure on the backside of the island which has also led to a concentration of gear. The frontside used to provide protection from bad weather, resulting in safety concerns since the area is no longer available.
 - One fisherman suggested that the closures around Anacapa Island be evenly distributed so that area on each side of the island could be accessible.
- *Scorpion SMR*: One participant described how this MPA closed off productive coves with an abundance of kelp, sea urchin, and sea cucumber, and that the area around the MPA is mostly sandy bottom. They added that this MPA may not look big on a map, but it covers a large area on the front east side of Santa Cruz Island.
- *Gull Island SMR*: Several participants explained how the area in the MPA used to be great for day trips and also provided weather protection on the way to Santa Rosa Island. They added that this MPA covers good areas for kelp and sea urchin.
 - One participant noted how older fishermen knew and studied the weather and tides in this area before it was an MPA, but that they had to relearn new fishing grounds elsewhere.
- *Footprint SMR*: One participant communicated how this is an example of a beneficial MPA because it helps with rockfish abundance in deeper waters but does not negatively affect the sea urchin or lobster fisheries.
- *Naples SMCA and Campus Point SMCA (No-Take)*: One participant gave the example that these MPAs restricted almost the entire Santa Barbara mainland coast from commercial fishing and how this demonstrates the variability of MPA impacts for different ports and regions in California. They added that these MPAs left mostly sandy bottoms, that do not house target fisheries, for fishermen to access and believed these MPAs should have been half the size each.
- *Arrow Point to Lion Head Point SMCA, Blue Cavern Onshore SMCA and SMCA (No-Take), Long Point SMR, Casino Point SMCA (No-Take), and Lover's Cove (SMCA)*: One participant asked that these MPAs bordering Catalina Island be considered for commercial fishing access since some sport fishing is allowed.

Participant Quotes

"I think the Point Dume one - everybody misses that one; that's really good area there that's protected from the weather. So in bad weather, you could always go down there and scratch around and find some good habitat there. [The Point Dume SMCA] cuts off some kelp that's easily hittable on a day trip. And then going around the corner you got to go past that MPA and considerably further east of the Paradise Cove Pier before you get into some decent hard bottom. So by the time you are all the way down, that's kind of like an overnight trip. And comparing the habitat in [the Point Dume SMR] to the east of Point Dume [SMCA] - you compare that to the stuff east of Paradise Cove Pier, it's like apples and oranges. I mean, that reef is so good where they took it away and then all the way down to the east is not nearly as good. It's more low lying sand and stuff mixed in."

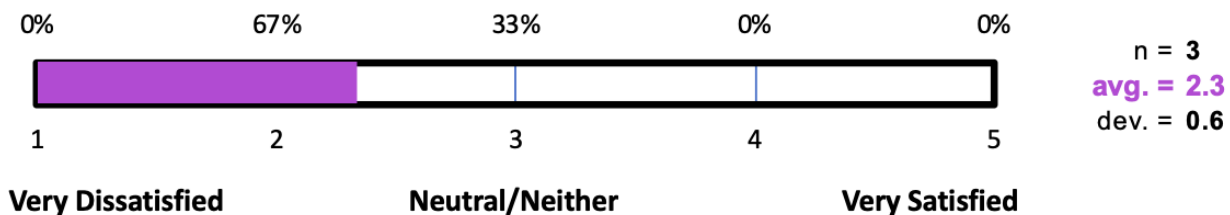
"Well, like Anacapa, like really? Take the whole front side of the island so we just keep annihilating the back. I'd rather close a little bit of the back, leave a little open on the front [. . .] I don't want to go urchin diving tomorrow, we have a hurricane swell in the water, so

everywhere sucks on the backside. It's going to be rocking and rolling, man. If there was just a little corner of the front that I could go hide out and be out of the swell, that'd be so nice. But instead [. . .] I have to go dive areas that are less safe because they're open [compared to] where I could go someplace more protected. [. . .] I think [it would] be better for the resource to have a little bit of each side of the island closed instead of just all one [side] or the other."

"[Footprint SMR is] a perfect [MPA]. I mean, that is a perfect closure. It is not hurting anyone, it's saving rockfish. It's not affecting urchin divers. It does not affect the lobster fishery and does not affect the other fisheries, so I'd like to pay attention to that area [as an example closure]."

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants explained their dissatisfaction with MPA management, specifically that they do not see any management occurring.

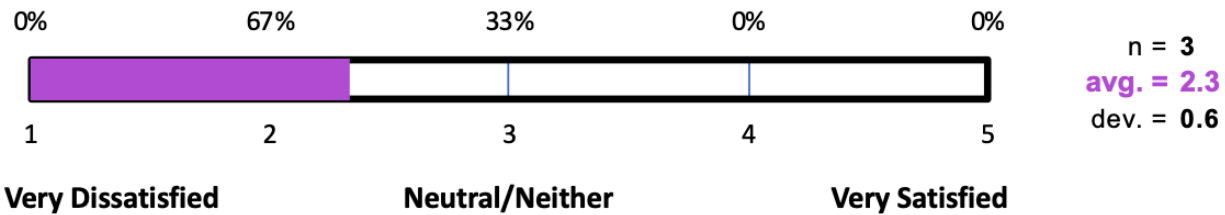
- Several participants shared how there has been no action with regard to MPA management following MPA implementation. One participant wondered who is responsible for MPA management, and another participant questioned why ongoing management has not been informed by learning through MPA research.
- One participant reflected on their involvement in the MPA implementation process and remembered being told that the areas that would be designated as MPAs would be reopened once marine resource health improved.

Participant Quotes

"I was between two and one, so [dissatisfied and very dissatisfied]. If we're talking about the management, I [don't] see any management. I mean, there are the closures - done deal. Who is managing that?"

"A lot of these MPAs when, they were implemented, that was part of their sales technique was 'hey, we're going to close this and open it up and close something else, hopefully to better the reefs so it's more sustainable even after it's fished again because it's gotten growth on it.' So it's funny because I just look back at it - all the freakin' meetings and all the things I've gone to - and it just comes back to: they take something and then they're never going to give it back. So hopefully this [project] helps somewhat."

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?

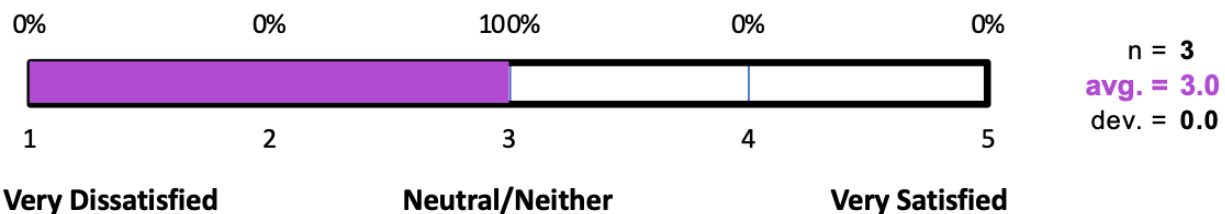


Discussion Summary One participant indicated that fishermen are unaware of MPA monitoring efforts.

Participant Quotes

"Did you do any testing, any diving, any research [in the MPAs]? No, none of [that has been done]. So it's hard to think about the management, if we do nothing with the closures. [. . .] Maybe we have a ridiculous amount of urchins [in] the area. We don't know."

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary One participant reported seeing MPA enforcement in the Ventura and Channel Islands area.

Participant Quotes

"I've probably been enforced. I didn't see any specific enforcement. [. . .] The Fish and Wildlife, they pass by the closures [and check if] all the traps are on the line and no one's diving in the closures."

19. MPA Overall Any additional comments or concerns about the MPAs and MPA management you would like to communicate?

Discussion Summary Participants communicated several suggestions that they would like managers to know regarding MPAs and MPA management.

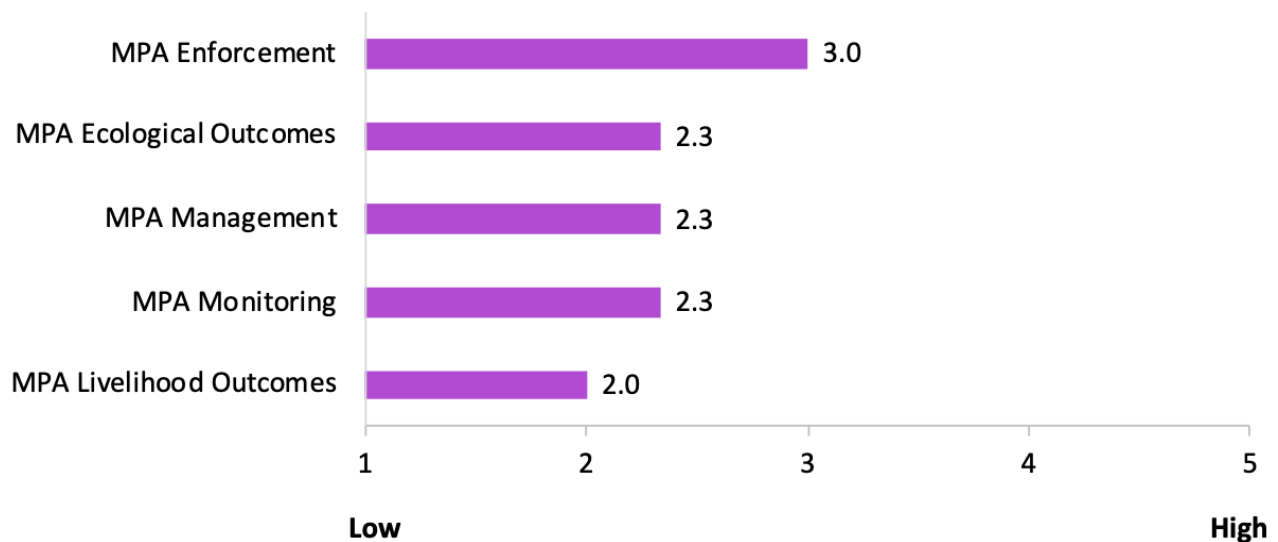
- Several participants recommended that the MPAs be rotated so that fishermen could access the marine resources that have been improved while other areas are replenished.
- Participants shared how they would like to see greater trust between fishermen and managers because fishermen continue to participate in studies such as this one yet do not see any changes or action based on what they say.

Participant Quotes

"I also look at the ability of rebuilding [an] area, but those areas need to be switched - rebuild that area, close another area, rebuild another. [The MPAs are] definitely propagating and doing very well for sure [. . .] but what comes out of it may not be beneficial unless we can get back in there and close something else and replenish something else. [. . .] I know it [the MPAs] help, but it can only help the fishery if we can get back in there. It's not going to help us otherwise."

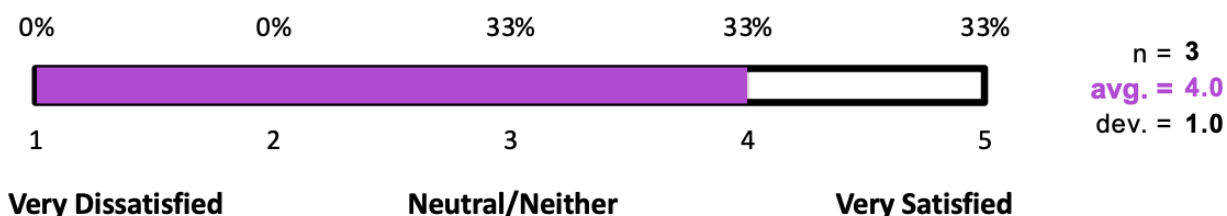
"I'd kind of like to throw that out to the managers like 'hey, throw us a bone in the interest of good faith and building a relationship.' I've been involved in fisheries politics for a while now and I've heard a similar thing from so many other fishermen where there's this distrust of management [. . .] The fact that we're participating on this call is because we're trying to put our best foot forward, we want to believe that things will be different this time around. But if we don't see anything change, then 20 years from now, 30 years from now when we're retiring and getting out of the business, we're going to be saying the same thing like 'don't trust them, we did all this stuff, we tried so hard, and then we didn't get anything to show for it.' So I think now's a really key time that if you, from a management perspective, do something for us, work with us, give us a little bit and see where it can go - we want to be a part of the solution."

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



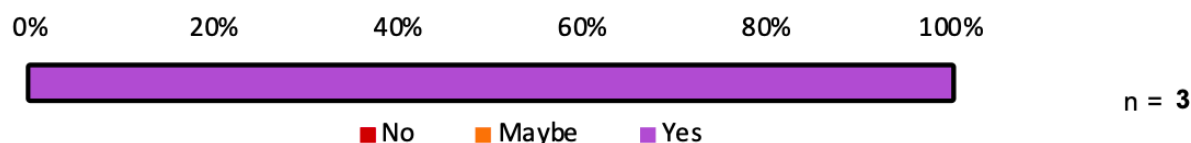
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future *Would you be open to participating in a virtual focus group or meeting like this in the future?*

(Note: For the following figure, the length of the purple bar indicates the percent of participants who responded 'Yes' to question 20b. If participants responded 'No' or 'Maybe,' a red or orange bar, respectively, would appear.)



20c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Participants reflected on the virtual experience and shared that they would be open to participating in a meeting like this in the future.

- One participant appreciated the facilitation of the focus group but commented how they believed the questions were too broad which could lead to the responses being misinterpreted. They added that the effects from the COVID-19 pandemic could have influenced several of the responses, and that this should be noted when considering the information in this summary.
- One participant stated that it was nice to have theirs and other fishermen's voices heard on the call and appreciated the opportunity to speak with fishermen about the state of their fishing community.

Participant Quotes

"Just the possibilities of [the questions] being misrepresented, I'm not saying that they're going to be. But, I mean, I just know how people take things and twist them."

"You've done a very good job listening to us. It's nice to be heard and it's really nice talking to the other fishermen on this call and to get a perspective of how things are going in other fisheries, and [we] talked about things like strength of relationships and, yeah, I talk to a lot of the urchin and cucumber guys. I don't really talk to the lobster guys, so it's nice to get their perspective on things and see how we agree. So yeah, that was worthwhile - just meeting each other."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network ***Members of Los Angeles/Long Beach Area's Commercial Fishing Community***

The Marine Protected Area (MPA) Human Uses Project Team¹ is hosting over 30 virtual focus group conversations with fishermen throughout California from July 2020 to February 2021. The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port Group: Los Angeles/Long Beach Area Ports

Date: Friday, September 4, 2020

Participants: Josh Fisher, Terry Herzik, Craig Jacobs, Jonathan Niksic, Kenny Swanson, one anonymous participant

Overview

On September 4, 2020, six commercial fishermen operating out of the Los Angeles/Long Beach area participated in the fourth focus group conversation. A high-level summary of the conversation is captured below, including:

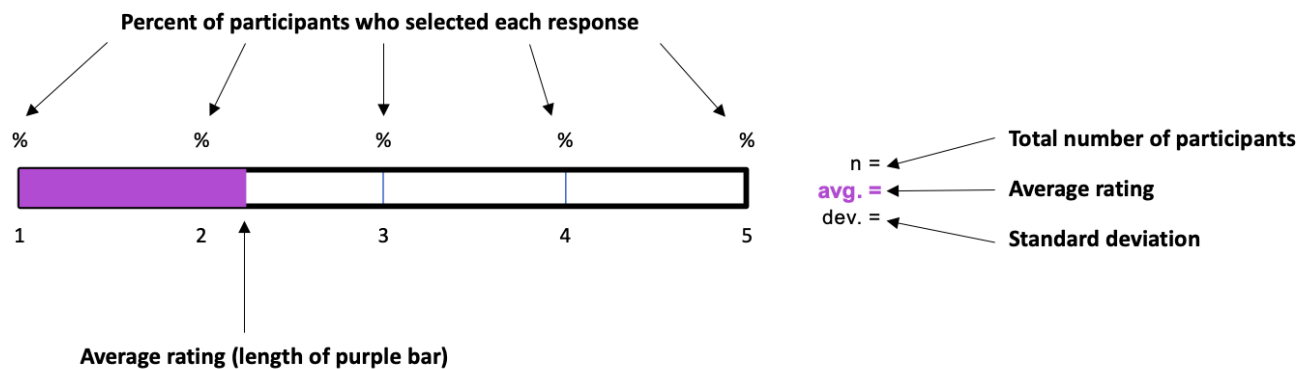
- the numerical final scores (via Zoom polls) for questions asked within each theme;

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

- a summary of participant's perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 16 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 13 and 18 that display all of the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

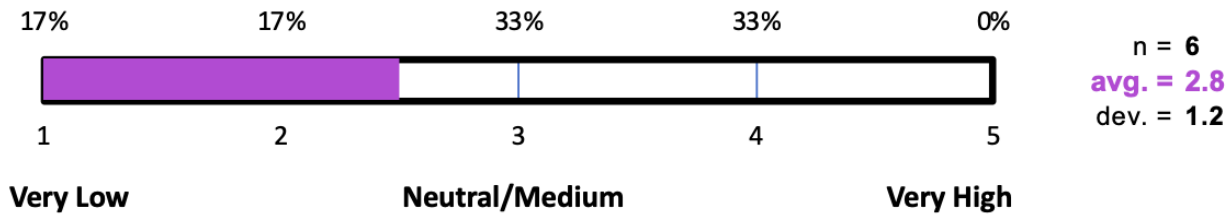
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: South Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2011-2015, South Coast](#)

Our Project Team would like to express our appreciation to the six Los Angeles/Long Beach area fishermen—Josh Fisher, Terry Herzik, Craig Jacobs, Jonathan Niksic, Kenny Swanson, and one anonymous participant—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary In terms of the current health and sustainability of marine resources, fishermen from the Los Angeles/Long Beach area reported that some species are doing well, while others are not.

- One fisherman believed marine resources are and will remain healthy. They explained how the abundance of lobsters naturally fluctuates from year to year, and described how California sheephead abundance is very high.
- One participant described how kelp growth and biomass cycles through time, and that kelp continuously regrows after periods when there is none, such as during El Niño events.
- Several participants expressed concern about sea urchin populations, especially around San Clemente, Santa Barbara, and Catalina Islands and off the coast of Los Angeles.
 - One participant attributed low sea urchin population numbers to effects from climate change.
 - Another participant cited more sea urchin fishermen diving in smaller areas due to compaction from area closures elsewhere as an additional factor. They added that fishermen are diving deeper and harvesting larger sea urchins.
- One fisherman described concerns that the sea cucumber fishery is close to collapsing.

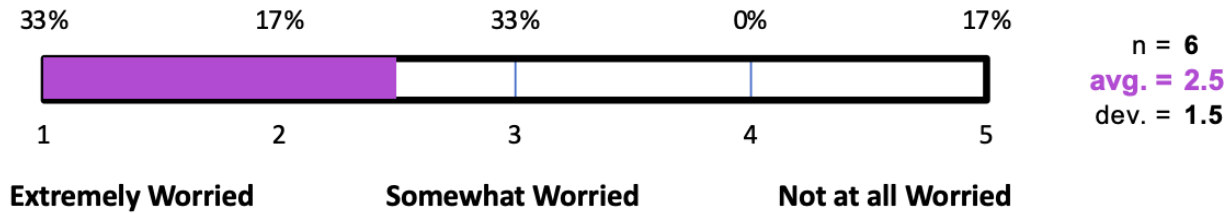
Participant Quotes

“With lobster, every year is different. You can have a couple pretty bad years and then have one that they keep coming and you go out the next day saying ‘there's no way I'm going to catch today’ and it's even better. You know, so I'm not worried. I've been doing this a long time and I'm not worried.”

“The urchin stock, especially the little on the Los Angeles coast area, has been hit really hard for reasons of closed areas; they took away part of our fishing areas and then other possible [areas] that have caused other boats to migrate south from Santa Barbara and up - coming down and work in our areas and decimating some of the areas that I don't think will come back. So that's a big worry and concern.”

“Regarding the sea cucumber fishery, I made concerns known to the Department of Fish and Wildlife in 2008 when we had a big spike in price with the China Olympics coming on. I could see right away we were going to get into trouble. And I suggested a moratorium on transferability but they said they would review it in 2010 and I went back to them in 2012 and nothing happened. And now the sea cucumber fishery is going the same way as every sea cucumber fishery globally.”

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary When reflecting on the future or long-term health of marine resources, participants expressed worry about certain species, and also expressed concerns about the management of the resources.

- One fisherman explained how they are more worried about the lack of management than they are about the resources themselves.
- Several participants highlighted that with no recruitment or reintroduction of sea urchins, the fishery will be gone in the Los Angeles/Long Beach area.

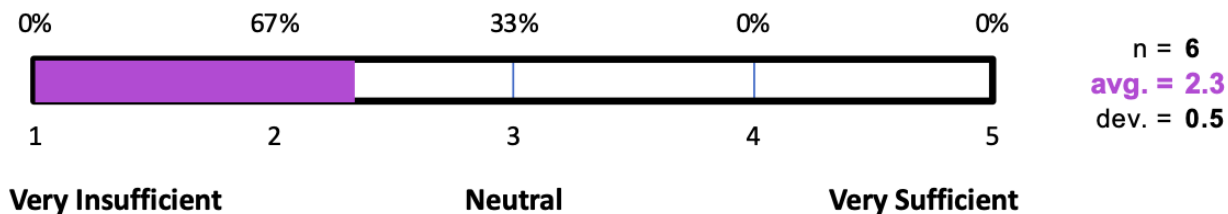
Participant Quotes

“I had the ‘somewhat worried’ and it's basically from the management standpoint - we don't believe that the management is even there.”

“Where there's not enough urchins to replenish, that's my concern, because once it's gone, it's hard to reintroduce urchins to kelp beds, and the big fight for us, even if we wanted to do that - to create urchin farms and grow them - the state and everybody else, they're happy the urchins are gone, they want to protect the kelp beds. So that's a concern there. There's not much hope that I can see for any major improvement in the industry.”

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants expressed that fishermen in their area have a poor level of access to commercial fish resources.

- One participant emphasized how fishermen generally cannot access marine resources as a result of restrictions, even though the targeted species are abundant.
 - Several fishermen discussed the difficulty associated with accessing both lobster and rock crab because they are not allowed to combine multiple fisheries in a single trip.
 - One participant highlighted the lack of access to rock crab, especially for newer fishermen, due to the limited availability of permits.

- One fisherman explained how they are unable to obtain a permit for the experimental box crab fishery because of the limited number of permits available.
- One fisherman communicated their frustration with the permitting system, specifically that in some fisheries, like sea urchin, fishermen are unable to transfer, sell, or purchase permits.
- One fisherman recounted how their live fish permit was revoked because they did not make landings during the time period they were supposed to, and now they can no longer access the fishery to supplement their landings.

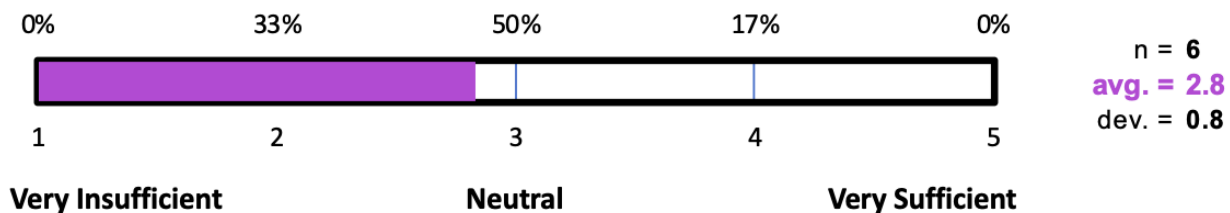
Participant Quotes

"I believe the pounds are there but you don't have access to fisheries to catch those pounds so it's kind of a double-edged sword."

"[I have] difficulty with multiple fisheries because they don't let you combine. I fish offshore and I can't combine crab and lobster anymore because of the trap tags needed. You're only allowed 300 traps. So some people were like 'well, I'm just going to put a bunch of crab gear out there and fish lobster with it. It kind of sucks, especially if you fish offshore because you got to run a long ways. And we used to combine one trip into two fisheries."

"I had a live fish permit, but I always kept it in my back pocket because I knew I wouldn't be that productive diving when I'm 80 years old and that's five years away from now. But during the window that you were supposed to make landings, I did not have a landing and so they [. . .] took the permit away from me. And now, perhaps I could be doing that too for whatever period that the fishery's open."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary When discussing income from fishing, participants communicated the need for fishermen from their area to have multiple sources of income to support their livelihoods.

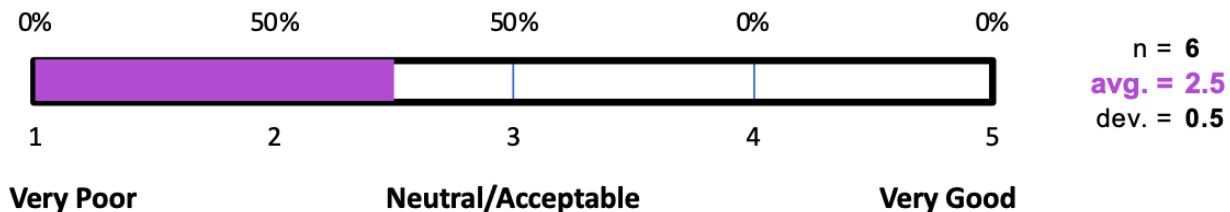
- Several fishermen explained how they have other jobs in addition to fishing. One participant's spouse helps to supplement their family's income.
- One participant mentioned if they did not have a second income, they would not be able to afford the permits they need.
- One fisherman related the inability of sea urchin divers to earn sufficient income from diving alone to the poor state of the fishery.

Participant Quotes

"I have a second source of income. So for me, honestly, if I didn't have that job, I probably wouldn't have been able to get into the fishery because permits are too expensive."

“The urchin business I think [is] beyond return. The income is obviously not going to be sufficient for any of us to survive unless you're one of those 30 year old guys that are diving at 140 feet which, you know, we're all too old to do that, too smart to do that.”

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary When discussing markets, participants noted areas for improvement in local and direct marketing and the challenges associated with international markets.

- Several participants explained how some fishermen have had success with direct marketing and selling to local markets, while others have not. Several fishermen mentioned how direct marketing can be time consuming.
- One participant discussed how the sea urchin fishery will likely need to turn to direct marketing because there is not enough abundance to supply processors. One fisherman added if they do not bring in large loads, they are unable to deliver to standard processors.
 - Another participant recounted how they used to sell sea urchins locally at the fish market, then they tried to sell off their boat, but now they do not have many marketing opportunities.
- One participant reported that because of U.S. tariffs on domestic products, the price fishermen receive from international markets for California spiny lobster, for example, is lower than what fishermen from Mexico are paid for the same product.

Participant Quotes

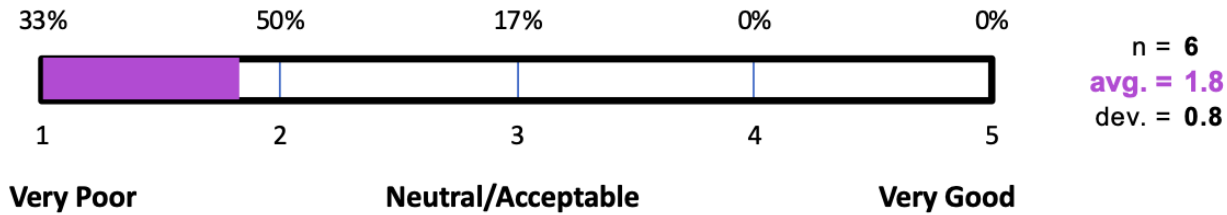
“I kind of jumped on the bandwagon [with] direct marketing last year and I had some success with it. I know some fishermen that have tried it in the past and haven't had success with it. And then some fishermen sell to local markets and they have a good relationship and things work out well for them. So, but I think it could always be better.”

“I went with poor because I'm not a big fan of, although I'm good at it, direct marketing. I'd rather fish and it takes away a lot of fishing time.”

“Talking with my processors, one of them said he doesn't have much hope for the sea urchin fishery five or ten years down the line. The level of decline is very steep. Eventually, they're going to drop out and the guys that direct market will be able to probably sustain a living because they work on quality and not on volume.”

“We take a huge hit overseas. I mean, we're tariffed 52% where Mexico is nothing [. . .] so the tariffs kill us [. . .] they get an astronomical price for their lobsters where we get, you know, nothing compared to what we used to get.”

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Related to infrastructure, participants discussed the lack of available infrastructure and services to support fishing needs.

- Several participants described the difficulty associated with obtaining ice, and attributed this to new fish companies buying most of the infrastructure in the Los Angeles harbor.
- Several participants explained how most services to support fishing are not available at Fish Harbor. One fisherman noted how this is indicative of the lack of local investment in the commercial fishing industry.

Participant Quotes

“I've been able to make things happen in LA harbor, but it's not like it's that easy. For a while, we had ice available from one fish company and we had to purchase it, but since then that's gone away. And a lot of the fish companies reorganized or sold [or got] new owners. I established personal relationships with other fish companies and they've been able to supply me for ice, but it's a process where I can't just go up any time of day or night and get it.”

“Well, I'll speak in terms of Fish Harbor. Those of us that tie up there, we choose to tie up there. So the amount of money we pay is reflective of the amount of services we're given. But we don't have other options like Santa Barbara, for example, has hoists, they have ice [. . .] but I don't see that anywhere else in LA, Redondo doesn't have that, Long Beach doesn't have that, I mean, nobody does. So in terms of LA, and I'll speak to Orange County as well, people don't view [the fishing industry] as positive and I think a lot of that has to do with the state [of California]. The state is not looking to enhance the commercial fisheries, they're looking to make the fisheries die a slow death.”

COVID-19 Impacts

Discussion Summary Participants recounted the effect the COVID-19 pandemic has had on fishermen in the Los Angeles/Long Beach area.

- One participant explained how fishermen started to experience effects from the pandemic in January when lobster prices dropped.
 - Another fisherman commented on the uncertainty of the upcoming lobster season and wondered whether people will want to buy their product.
- Another participant shared how there was almost no demand for sea urchins when restaurants began to close in March due to COVID-19.
- One fisherman explained how COVID-19 has affected their fishing operations, as they fish on overnight trips, and are reluctant to be in close contact with crew in a small space for too long due to risks associated with COVID-19.

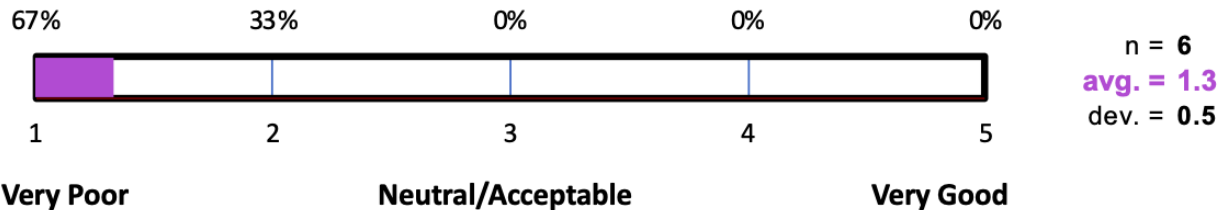
Participant Quotes

“At the end of February, things dropped dramatically. My processor suggested I do something else, otherwise we were just going to roll the dice for the auction market in Tokyo. The domestic markets just completely collapsed with no restaurants serving the fresh urchin.”

“At the beginning of this [year’s lobster] season, I don't know how that's going to [happen]. A lot of people haven't worked this whole summer now, so are those same people that I sold to at the end of last season, [when] the economics hadn't hit them yet, [are they] going to be there [to buy our lobster]? I don't know, and I won't know until our season starts.”

Well-Being, Social/Political

7. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary When discussing labor, participants indicated recruitment and retention of participants in the commercial fishing industry was poor.

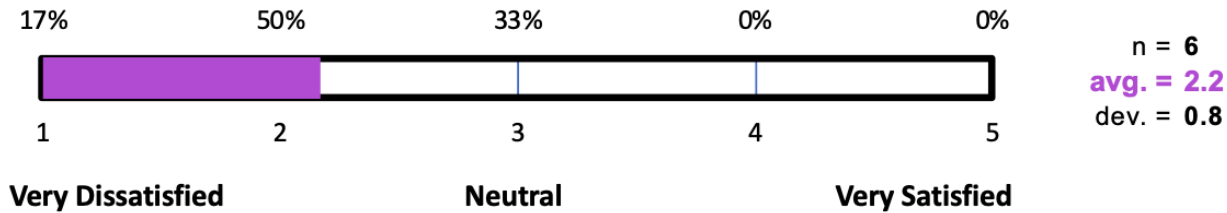
- Several participants described how there are few fishermen entering the industry, and those who do enter choose not to stay for very long. They explained one reason for this being the lack of available and affordable permits.
- One fisherman mentioned how some entrants do not have prior fishing experience, and that those individuals tend to not stay in the industry.

Participant Quotes

“I don't feel like there's anybody really behind us ready to take these fisheries over. There [aren't] young adults that are in the fisheries that work their way up to eventually own their own business and continue the cycle. It's cost prohibitive [. . .] but it's also access - there isn't a lot of fisheries to get into.”

“There aren't that many people that have a certain amount of integrity when they get out there and they're inexperienced coming into your area. That was an issue, a big issue in the past. Most of those guys don't last long in the business.”

8. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Related to job satisfaction, participants explained how fishermen are more dissatisfied with the regulations and management that come with being a fisherman than with fishing itself.

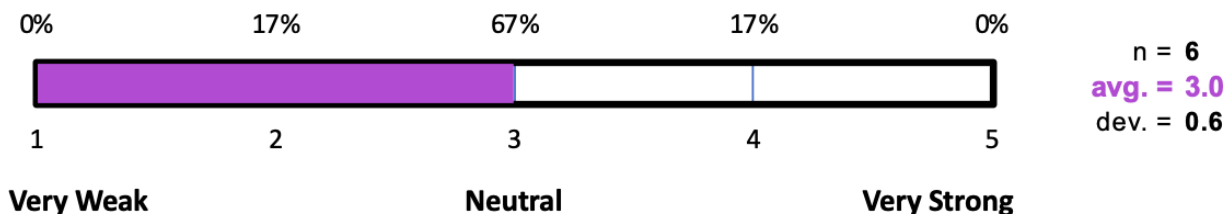
- Several participants highlighted how being a fisherman used to be exciting, and while they still enjoy it, the negatives tend to outweigh the positives.

Participant Quotes

“On the job satisfaction, I have to say there's a huge range. When fisheries were newer many years ago [they were] exciting. And I don't want to say that I don't have a lot of gratitude. I do have a lot of gratitude for the life I've lived on the ocean. It's been terrific, but I would not like to be a kid now trying to make a living here unless [there was] some kind of transferability thing where my grandfather or my father could supply me with multiple permits or something in the family, that kind of thing, because one permit, two permits don't make it anymore.”

“I would say everybody's probably dissatisfied. It's not from the actual fishing or the job itself, but more from just the pressures, the outside pressures, other than fishing, whether it be management [or] the environmental groups that are constantly chopping away at us with their crazy ideas and just things like that. When I started, the biggest [concern] you had was ‘is the weather going to be bad today’ or ‘how's fishing going to be.’ Now we have to worry about thieves because of changes in management. It's just not the same anymore. I mean, the fishing part of it I still enjoy. But all the other crap involved with it has just taken all that away from it.”

9. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Overall, participants reported they felt social relationships among fishermen within the Los Angeles/Long Beach area were neither strong nor weak but that, overall, fishermen tend to get along with each other.

- Several participants explained how they tend to communicate more and have stronger relationships with fishermen they know, and that they don't often communicate or socialize with fishermen outside their immediate social circles.

- One participant added how fishermen generally look out for each other, but that the sense of camaraderie is not as strong as it once was.
- One participant noted how they know there are fishermen they can count on when needed.

Participant Quotes

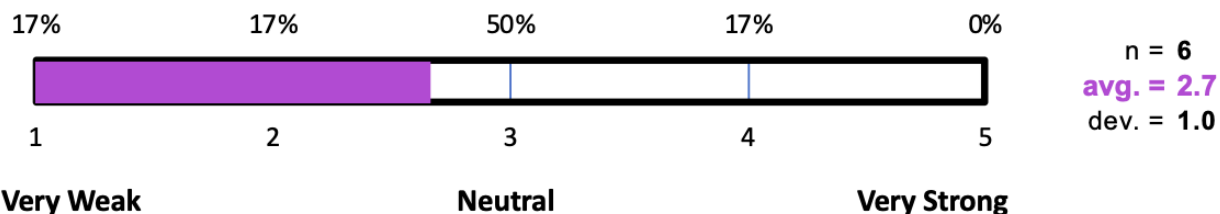
"I trust the guys [in this focus group], but there's some that I don't. And there's [some we] will pull up and shoot the crap every once in a while and laugh and that kind of thing, but it's just a select few."

"For me, it would be neutral because some guys get along, some guys don't. So it's kind of an in the middle thing."

"I feel things have changed in Fish Harbor over the last few years where we've lost a lot of boats. They've moved to different ports or they've retired or some of them have died and we're just gone. So the new guys that come in from the North, I've known some of them. I've known some of their fathers even and we have respect for each other, but I don't socialize with anybody down there at the harbor. But in terms of just getting together, things have changed. We used to raft up in harbors at various islands and have a drink together in the evening or have coffee and talk over the latest whatever all the time, but that kind of relationship has just drifted away."

"[Name redacted] is one of the few people I respect but I hardly ever see him maybe once every five years, we'll connect somehow or chat. And I would trust him implicitly. When you're out at Catalina or San Clemente island and you lost your anchor and you're adrift and the engine stalls [name redacted] is going to be there to drop it and come over and get you. That's what I miss. I miss that a great deal."

10. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants indicated that few fishermen are involved in policy processes and have relationships with government and non-governmental organizations (NGOs), and that they feel there is little community support for the fishing industry.

- Several participants identified one fisherman who has fostered relationships with groups outside the fishing community over time and to whom they go to for information.
- One fisherman explained how they are involved in policy processes to stay informed. They think fishermen are starting to be heard in management decisions, but that this has not been the case for a while.
- Another participant compared the community support they perceive East Coast fisheries to receive with the lack of community support for California fisheries.

Participant Quotes

“For me, [external relationships are] very strong because I have the ability to reach people in different facets, especially as it pertains to the state or management and so on. Also with the NGOs, I have those relationships because of the MPA process years ago and I've maintained them, good or bad, but [others] don't have the same relationships with all the folks.”

“I also am involved with environmental groups and I've always felt like it's to my benefit to participate when I'm asked. And with management, for instance, in the sea cucumber fishery [. . .] I'm starting to see something where the fishermen's input is respected and listened to and before they said ‘yes, we hear you’ but then ignored everything in terms of what kind of management techniques they decided to impose on us. So that part has been discouraging, but I see hope in the sea cucumber fishery, but too little too late.”

“I get the perspective from traveling to Boston a few years back and seeing the East Coast and how the fisheries are treated there and the facilities they have for the fisheries, it's a whole other world. I mean, you come back here and you just feel like nobody cares. You know, we're bottom of the barrel.”

Well-Being, Overall/Additional Comments

11. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants shared the following comments and suggestions they would like state managers to know about their fishing community:

- Participants said they believed the California Department of Fish and Wildlife (CDFW) does not effectively manage fisheries, and could do more to support fishing communities.
 - Participants described how CDFW's opposition to permit transferability, especially for the sea urchin fishery, demonstrates poor management. One participant suggested that CDFW allow two-for-one permits in the sea urchin fishery, similar to the nearshore fishery. Another participant explained how the inconsistency across fisheries in the ability to transfer permits makes it difficult for fishermen to plan for the future.
 - One participant emphasized how fishermen are often shut down when they make suggestions they believe would help to improve fisheries management.
 - Participants communicated the belief that their participation in this and other studies will not change fisheries management. They stated they would like to see CDFW take action based on their suggestions, and described the continuous cycle of discussing the same things every couple of years without seeing any results.
 - Participants shared that they feel managers are simply ‘checking a box’ each time they ask fishermen to participate in studies.

- One participant expressed frustration associated with agency staff turnover, and said this requires fishermen to repeat the same conversations each time new agency staff members approach them.
- One participant explained how timing restrictions on the sea urchin fishery create unsafe incentives which force divers to fish even when the weather is bad because they do not want to miss a whole week when the fishery is open.
- One participant mentioned how they believe the Fish and Game Commission (FGC) does not follow through on tasks in a timely manner.

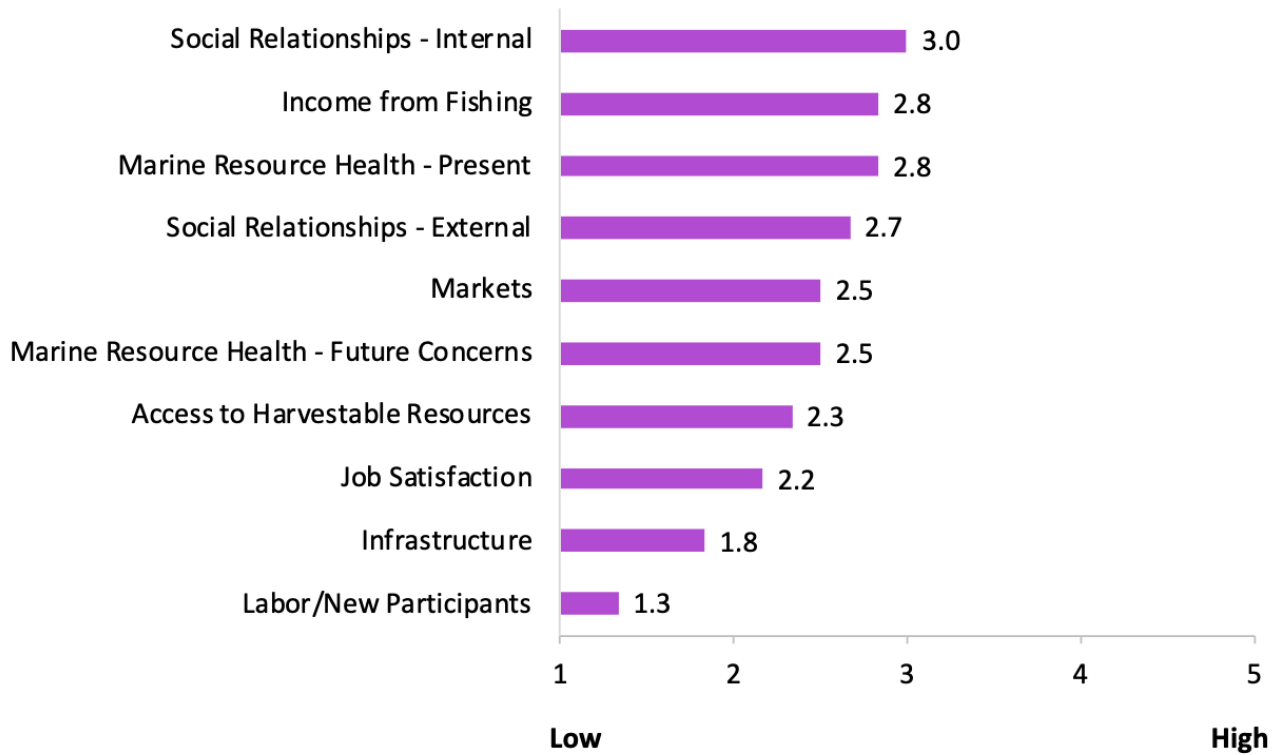
Participant Quotes

“At the state level, in CDFW, there’s great disdain for transferability. It’s really sad that some of those decision makers at the top absolutely [limit] our ability to transfer our permits, and the dollar amount we get for said permits is based upon markets, [. . .] and all the fisheries are managed differently in terms of transferability. Some have a clause to retain their permit for two years, they’re all different, [but] it all goes back to the same thing - poor management, lack of management, lack of support.”

“Well a good thing would be to actually see action on some of the stuff that we discuss. That's kind of the rub - we see discussions and we don't see any action. And then we discuss the same thing three or four years later [. . .] Nothing ever gets done. Honestly, by the time I'm done fishing, there probably won't be a fishery the way I see things trending, and not because of the [fish] stocks or anything. We're gonna get regulated out.”

“I'm not satisfied with what the managers have been charged with doing. Some of the points that were very important to me in my [sea urchin] fishery were dismissed or just sloughed off.”

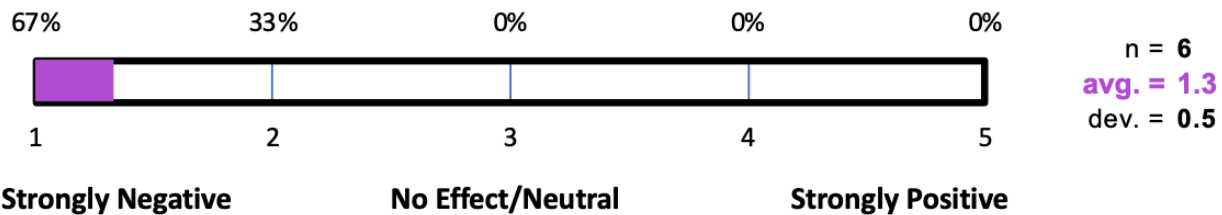
Perceptions of Fishing Community Well-being, Average Responses for Questions 1-10



Perceptions of MPAs

MPAs, Outcomes/Effects

12. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Strongly Negative

No Effect/Neutral

Strongly Positive

Discussion Summary When asked about ecological outcomes from the MPA network, participants reported how the MPAs have had more negative than positive impacts on the health of marine resources.

- Several fishermen described seeing more kelp further away from MPA boundaries than inside the MPAs. They attributed this to the restrictions on sea urchin harvesting in the MPAs.
- One fisherman believed there has been no spillover of sea urchins from the MPAs, and that the MPAs have put more fishing pressure on sea urchins outside the MPAs.

- One participant suggested that California sheephead have benefited from the MPAs, but have had negative impacts on other resources because they prey on sea urchins, which reduces their spawning potential, and lobsters.
- Several participants emphasized they cannot be certain on what is happening inside versus outside MPAs without research to provide this information.

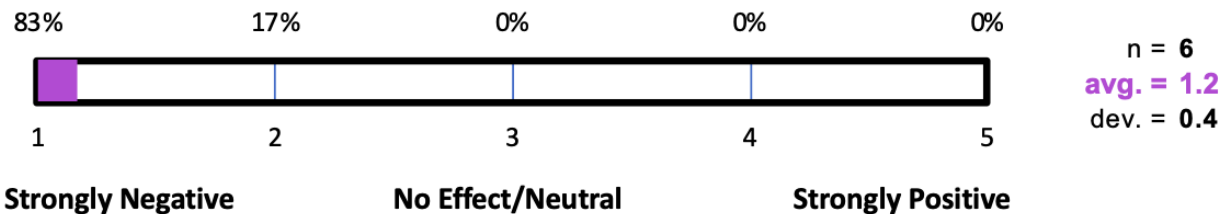
Participant Quotes

"I remember back to [before the MPAs were implemented] all the kelp that was there. It was so thick you could hardly even drive through [. . .] That was the last year I've seen it that thick in there. Over time, it's never grown back in there and even on our northern MPA line the kelp is not like it used to be."

"I don't see a spillover effect in the urchin fishery - they move, but they move slow, they're not going to, like, crawl out [of the MPAs]."

"I answered neutral because I don't know what the MPAs are doing or what they've done. I really don't. There's no study on them. We have no idea what's going on inside of them."

13a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 13b. *MPA Effects - Overall* which summarizes the conversations related to questions 13a and 13b.

13b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary Participants detailed the negative effects MPAs have had on fishermen in the Los Angeles/Long Beach area.

- One participant explained how fishermen have been displaced from their traditional fishing grounds, resulting in compaction outside MPAs, especially for the lobster fishery.
- Several participants described how the MPAs took away safe fishing areas for sea urchin divers, who are now forced to dive in more dangerous areas.
- One participant described an economic impact of MPAs on fishermen where fishermen must now use more fuel to drive around MPAs and fish in areas where their catches are reduced compared to their former fishing grounds.
- One participant commented that fishermen need to fish further and dive deeper due to the MPAs, but that they have adapted to these circumstances.
- One fisherman recounted how the MPA implementation process encouraged fishermen to engage politically and attend more meetings than they would otherwise.

Participant Quotes

"It's hard to explain, outside of the MPA, what it's done. I don't even know how to word it, it's crazy, there's so much compaction. It's nuts, but yet we still catch lobsters, you know, I don't think there's any threat to the lobster industry at all. But the MPA has not helped it, a lot more compaction - people fishing where they didn't fish before, including myself, stepping on other people's toes. It's like 'hey, sorry, man. I got shut down. I got to fish here now.'"

"Oftentimes, the MPAs are on the leesides of islands and so where you had a backup plan [before] - [now] you're going out and something blows up and it's gnarly, you can't just say 'oh, well, we'll just go eek out some product over here today, and then maybe it'll be better around the other side tomorrow.' It's not like that. That's permanently closed, we'll never see them open again."

"I think a lot of us have become engaged only because we have to, I mean, obviously we became fishermen for a reason. You know, we don't necessarily like going to meetings and doing this kind of crap, but that's what our life has morphed into and it takes away from what we initially got into fishing for - to go fishing and it's like I said before, you know, it's constant regulation, it's constant this, it's constant that."

MPAs, Discussion of Specific MPAs

14. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants emphasized that all of the MPAs have had a negative effect on fishermen who operate out of the Los Angeles/Long Beach area, and explained that it is impossible to say which MPAs are worse than others. Several participants added that the MPAs closest to where fishermen used to fish have resulted in the most negative effects, and that the MPAs have cascading effects on fishing areas further away.

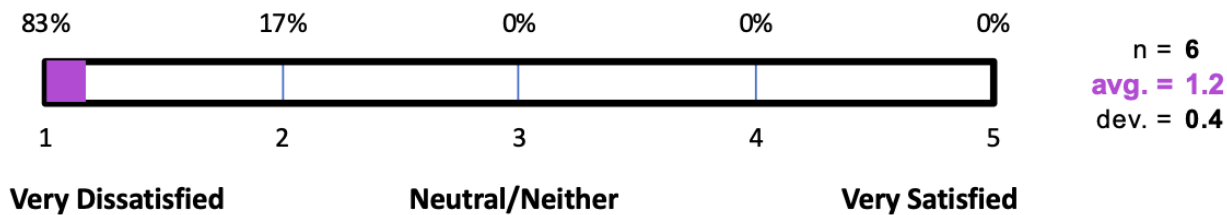
Participant Quotes

"I think it relates to everybody in the same way. The most important one that affects you is the first one closest to you. And then it's just every one after that down the line and it all affects in the same way. It's all bad."

"They're all tremendously negative on every level. And you can't cite one as being worse than the other because displacement from one puts effort in another location. There is no 'Laguna [Beach State Marine Reserve (SMR)] is worse than Point Vicente [State Marine Conservation Area (SMCA)] or Farnsworth [Offshore SMCA]' - it doesn't matter."

MPAs, Management

15. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants expressed anger and frustration with the MPA implementation process and current MPA management.

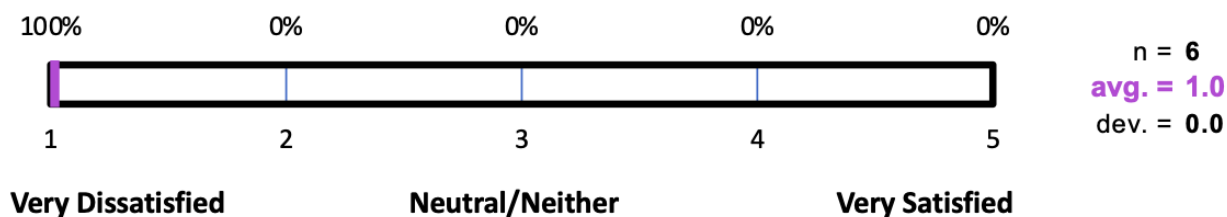
- One participant shared that although local fishermen participated in the MPA implementation process, they were not able to negotiate or communicate their perspectives.
- Another participant expressed frustration about the lack of MPA management, and shared that fishermen were told one thing with regard to the purpose and goals of the MPAs, but have yet to see these goals achieved.

Participant Quotes

“There was no ability to negotiate with people [during MPA implementation] because they wanted to close the entire coastline of Laguna Beach to take and [make it] an SMR. And they got almost the entire coastline of the sea at Laguna Beach. They are completely disingenuous in terms of wanting to work with the various fishing communities, and that's where we're left right now. I mean, obviously you can tell I'm a little bit heightened by this whole thing. It's bullshit. It's complete bullshit, and the fact that we're talking about it right now and in the conversations that we've all had amongst ourselves, that I've had with with NGOs, it's for naught - it truly is.”

“That was the rub about why, you know, a lot of the groups that push this stuff in the MPAs [said] ‘oh yeah, we want to observe and see what's going on’ and nobody's doing anything. So it's like everything else. You know, we were told one thing and another thing happens.”

16. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary When discussing MPA monitoring, participants described their overall dissatisfaction with past and current monitoring efforts.

- One participant questioned the timing of the baseline monitoring, and noted that monitoring did not start until after MPA implementation in some regions.
- One participant was involved in MPA monitoring, but the majority of participants were not aware of studies or results related to MPA monitoring. Several participants said they would appreciate better communication about monitoring updates and results through email.

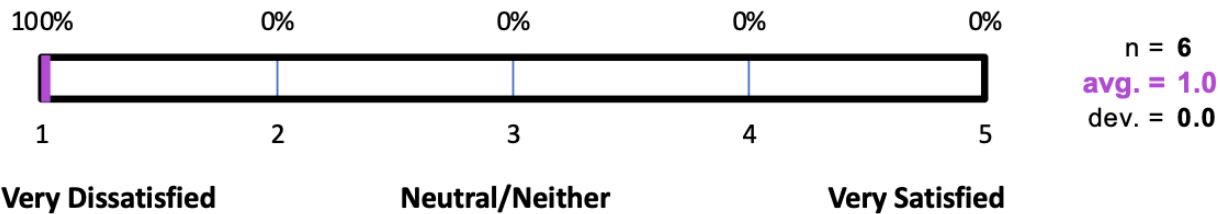
- One participant shared their impression that it seems like MPA managers and state agencies do not care what is happening inside versus outside MPAs.

Participant Quotes

"It would have been so easy, if they have done any monitoring or anything, to just send an email and say 'here's a link to what we've been doing' to all the fishermen that are licensed that might have been impacted [by the MPAs]. So I am not happy with that."

"And it's not sour grapes that we had areas shut down. We don't know what's going on in [the MPAs]."

17. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants expressed beliefs that MPA enforcement is inconsistent, unfair, and ineffective.

- Participants identified inconsistencies in enforcement efforts targeted at commercial and sport fishermen. Several participants explained how they often see sport fishermen fishing in local MPAs, while commercial fishermen are penalized even if their gear accidentally crosses an MPA boundary.
- One participant mentioned an incident when they notified the FGC that they were going to help with a news story about MPAs, and how the FGC was adamant about issuing a citation if the fishermen or their gear were found in an MPA, even if they were not fishing in the MPA.

Participant Quotes

"There's times [when I'll] see a [sport fishing] boat in there for 8 to 10 hours in the day - you pass them in the morning, you see in the afternoon and they haven't moved. Nobody cares. I mean it's just like we all said at the beginning - this wasn't about anything other than a land grab and they got it and now they don't care. They walked away from it. But enforcement wants us [commercial fishermen] because the fines are much greater. It's all about money. They know it all has to do with trying to generate money."

"There's no teeth to enforcement."

18. MPA Overall Any additional comments or concerns about the MPAs and MPA management you would like to communicate?

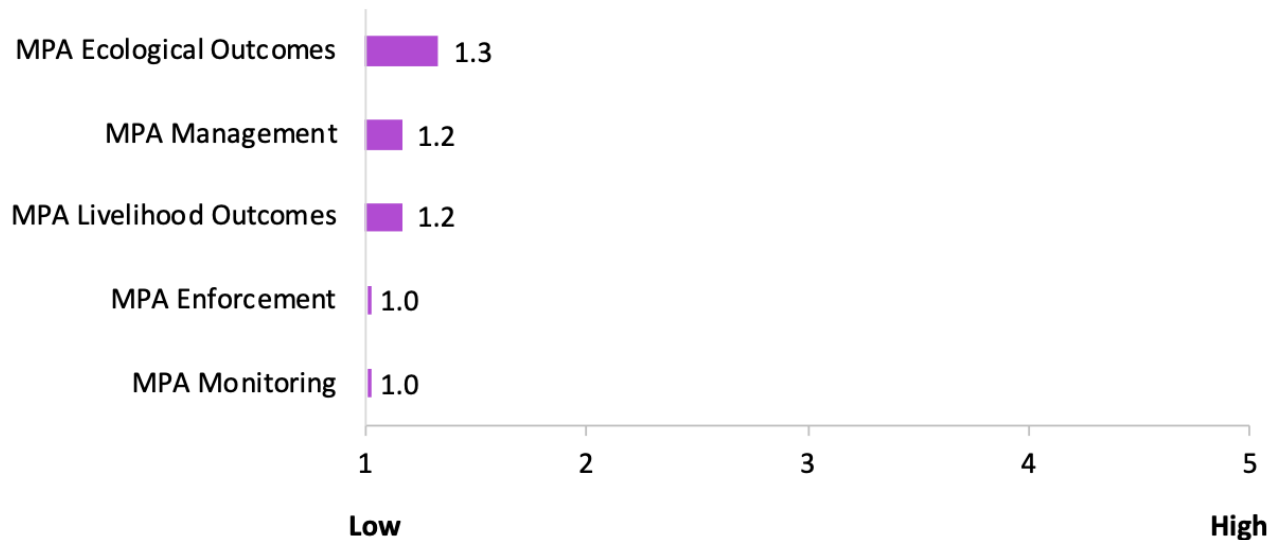
Discussion Summary One participant shared that they believe managers are disingenuous with regard to MPA and fisheries management. Another participant indicated that fishermen are

constantly being asked to participate in studies such as this one, yet nothing seems to change based on what they say.

Participant Quotes

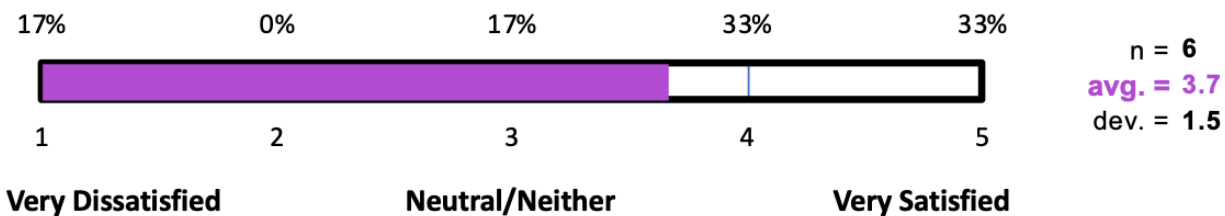
“I’ll just say that I’m super excited that nothing’s going to change [with MPA management] and just curious when we’ll be doing this [participating in an MPA-related project] again.”

Perceptions of MPAs, Average Responses for Questions 12-13a, 15-17



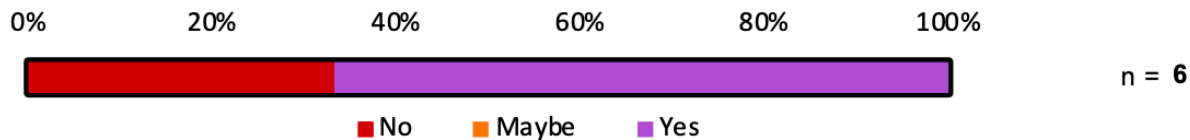
Feedback on Virtual Process

19a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



19b. Willingness to Participate in Virtual Process in Future *Would you be open to participating in a virtual focus group or meeting like this in the future?*

(**Note:** For the following figure, the length of the red bar indicates the percent of participants who responded 'No' to question 19b. The purple bar indicates the remaining percent of participants who responded 'Yes.' If participants responded 'Maybe,' an orange bar would appear.)



19c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Participants said they were generally satisfied with the virtual focus group experience, but would prefer meeting face-to-face.

- One participant appreciated hearing other fishermen's perspectives and having the chance to communicate with them.
- One participant stated they would rather participate in person without the need for technology like Zoom.
- Another participant shared how virtual meetings are not their first choice of communication, but that they have gotten used to it.

Participant Quotes

"It's been good talking with everybody [and hearing] what's going on with everything."

"I like [it when] everybody sits around a table, and this isn't a venue where we're going to disagree necessarily. Right? I mean, we're all like-minded for the most part as it relates to commercial fisheries. I just prefer to do it in person. That's it. I'm not a fan of technology, regardless of what I'm doing right now but I'd rather we sat as a group together."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network ***Members of Orange County Area's Commercial Fishing Community***

The Marine Protected Area (MPA) Human Uses Project Team¹ is hosting over 30 virtual focus group conversations with fishermen throughout California from July 2020 to February 2021. The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port Group: Orange County Area Ports

Date: Wednesday, September 9, 2020

Participants: Dan Cludy, Greg George, Rodger Healy, Ivar Southern, Linda Southern, one anonymous participant

Overview

On September 9, 2020, six commercial fishermen operating out of the Orange County area participated in the fifth focus group conversation. A high-level summary of the conversation is captured below, including:

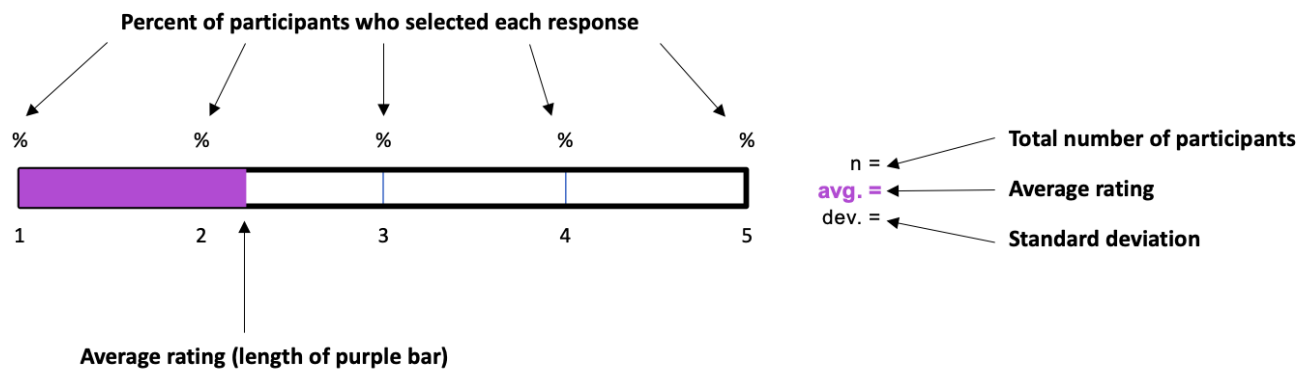
- the numerical final scores (via Zoom polls) for questions asked within each theme;

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 15 and 21 that display all of the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

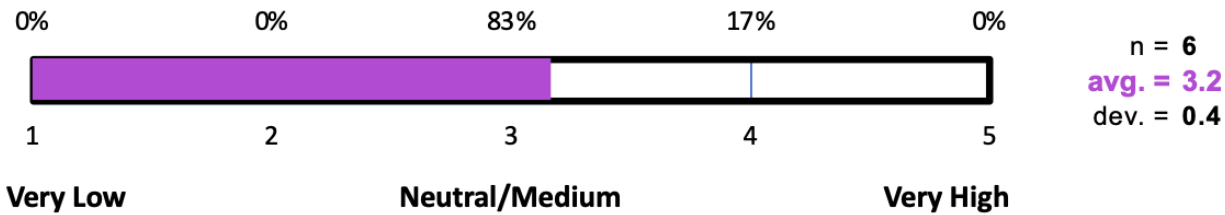
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: South Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2011-2015, South Coast](#)

Our Project Team would like to express our appreciation to the six Orange County area fishermen—Dan Cludy, Greg George, Rodger Healy, Ivar Southern, Linda Southern, and one anonymous participant—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



- Discussion Summary** Regarding the current health and sustainability of marine resources, participants shared their beliefs that their fisheries are overall healthy because the fishermen manage themselves and each other, and added that the abundance and diversity of species in the Orange County area follow natural ocean cycles. Fishermen also discussed how area closures have led to compaction of fishing effort, which has resulted in diminished health for some species.
- One participant reported there is sufficient lobster abundance to support the fishery each year. Another participant explained how the location of lobster often follows yearly warm or cold water events.
 - Several participants expressed marine resources would be more abundant if fishermen had more area to harvest from. One fisherman noted how abundance and diversity has declined in recent years following the creation of area closures like MPAs.
 - One participant described how fishermen are only allowed to harvest select species from Newport Beach to Dana Point, including primarily lobster, urchin, and squid, though urchin and squid are not very abundant in this area. They explained that crab, kellet's whelk, and nearshore species populations are healthy, but that fishermen are no longer allowed to access them.

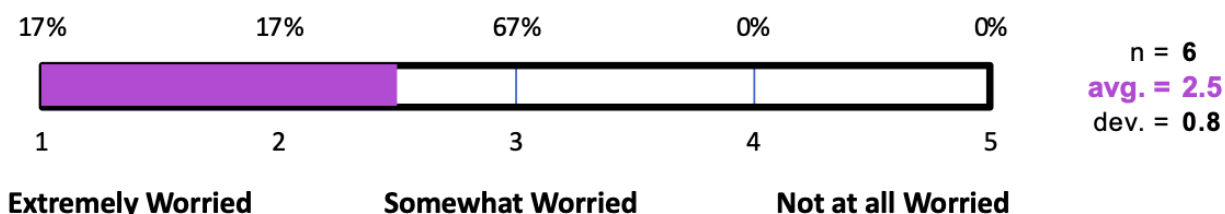
Participant Quotes

"It's all around cycles of the ocean, I mean, if there's a warm water year there are lobsters over here, and cold they're over here. And if it's too hot they're somewhere else."

"It would be a lot more abundant if we'd be able to spread out, if we had more turf to fish. But we're all in one big corner now. We've had good years, but I've watched it decline over the last six or seven years and [we] used to have a lot more diversity but everything's just kind of been taken away. There's nothing we can do about it."

"[The] health of our resources are strong, our inability to be able to harvest them is at our deficit."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



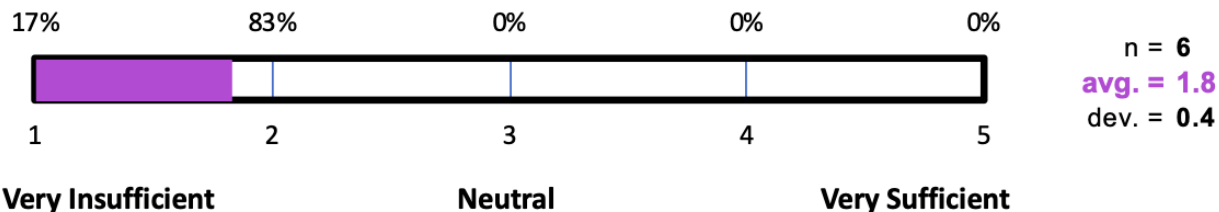
Discussion Summary One participant shared their perceptions related to the future health of marine resources. They believe that the future health of the lobster fishery will depend on natural ocean temperature fluctuations and weather conditions, in addition to spillover from the MPAs.

Participant Quotes

“The long term health of the fishery? There'll be lobsters to catch, it just depends on the [ocean] cycles - if it's warm water, cold water. And then you're going to hope for a bleed off out of the closures, because that's helped out quite a bit in the last few years. And then we have to rely on the weather. [If] we don't have the weather, they're not going to be there either. We'll see what happens.”

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants highlighted several barriers that inhibit access to commercial fish resources for fishermen in the Orange County area.

- Several participants shared that fishermen face economic barriers to their access of marine resources, specifically citing expensive fishing permits. In addition, if permits are only available through a lottery system, access is not guaranteed.
 - One fisherman shared their experience trying to obtain a gill net permit, and said they believed the regulations were changed specifically to not allow them, personally, into that fishery. They added that this and similar circumstances related to permit access creates difficulties, especially for newer fishermen.
- Several participants explained how more established fishermen are better able to diversify their fisheries of participation compared to newer fishermen because they have already acquired the gear and dock space needed to support fishing activities, whereas current access to key infrastructure is limited, expensive, and difficult to obtain.
- One participant described the lack of diversity in fisheries operating out of Dana Point, with the majority being lobster fishermen, though a small portion of the fleet fishes for kellet's whelk and other species at different points throughout the year.
- Several participants considered lobster theft around Dana Point to decrease access to catch that fishermen in the area would otherwise be able to harvest.
- One fisherman shared their opinion that the decrease in the lobster trap limit was going to be detrimental for the fishery and stated that fishermen are still able to catch the same amount they used to but with less effort.

Participant Quotes

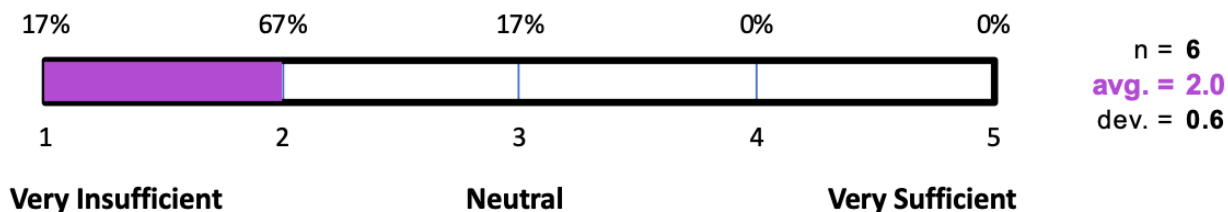
"I bet you 80 percent of our guys in our harbor [in Dana Point] are lobster [fishermen]. [. . .] I mean, everybody does lobster. There's a little bit of kellet's whelk. There's some other stuff like [name redacted] does during the summer time, but most of our guys are lobster fishermen."

"It's not just the restrictions on access like the permit values and being able to acquire a permit for a value set, but the convoluted nature of how people get into fisheries now, whether it's maybe an overpriced permit or some screwed up lottery system."

"[As a new guy and getting berthing and everything else], that's not good. Because where are you gonna put your boat? You're gonna have to go to the launch ramp and the launch ramp is the only thing that's available. And [. . .] I see people complaining all the time about the launch ramp. There's no access. There's nowhere to park half the time with the launch ramp."

"It's not just the restrictions on access like the permit values and being able to acquire a permit for a value set, but the convoluted nature of how people get into fisheries now, whether it's maybe an overpriced permit or some screwed up lottery system."

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary When discussing income and livelihoods from fishing, participants discussed the difficulty associated with sustaining a living from commercial fishing alone and the need for fishermen to have multiple sources of income.

- Several participants said they believed almost all fishermen operating out of the Orange County area have two or more sources of income. They attributed this need for multiple income sources to the financial investments associated with fishing, including slip fees and boat maintenance, in addition to the high cost of living in Orange County.
 - One participant explained if they had to pay rent, they would not be commercially fishing because they would need a job that generates more income.
 - One fisherman shared that they are moving out of Orange County to fish in another state due to the high cost of living, in addition to other factors including tariffs, MPAs, and effects from COVID-19.
 - Another participant estimated that a new fisherman would require years to earn back the money needed to invest as a new entrant in the fishing industry.
 - One fisherman indicated they are able to comfortably support themselves with the fishing business they built over the years, but that newer fishermen would not be able to do the same by fishing full time, specifically because of the lack of available permits.
- One participant highlighted how lobster fishing generates sufficient income, whereas other fisheries such as swordfish cannot support commercial fishermen as a primary source of income.

- One participant attributed their inability to afford to pay crew members as a reason why they fish alone, while another participant shared they prefer to fish alone even though they can afford crew members.

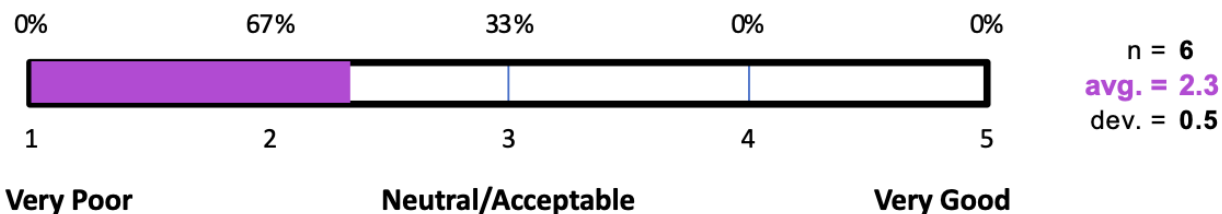
Participant Quotes

“Everyone has a secondary means of employment or of financial stability because of the fact that fishing is no longer the mainstay. It's hard to derive a sole livelihood from fishing anymore in Orange County.”

“We make good money, but we put a lot of money back into [fishing]. [If] somebody saw how much you made, they'd go, ‘wow, that's pretty good’ thinking the only thing in your garage is your car [. . .] we have a lot of stuff we have to pay for to keep going. And if I was a guy trying to get into the fishery like lobster fishing, I couldn't do it. I couldn't see where you would get the money back.”

“The thing about lobster fishing is you go out, you're going to generate an income every day [. . .] Most of us are lobster fisherman and that's probably the only game in town if you're going to be fishing locally and if you're going to be able to generate any kind of income on a regular basis.”

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary When discussing markets, participants noted challenges associated with both overseas and local markets. Several participants said that there is potential for more direct marketing to the public locally, though one participant noted that there was a limit to local markets.

- Several participants identified tariffs as a barrier for fishermen to earn a profit, and reported that lobster from Mexico is not tarified, whereas lobster from Orange County is tarified.
- One participant explained that buyers are reluctant to buy local products because the markets are flooded with products from Canada and Mexico.
- One participant shared that local markets are supplied with lobster from the East Coast and have been nearly eliminated for local fishermen. As a result, fishermen in the Orange County area are dependent on overseas lobster markets.
- One participant said that when fishermen have few markets to sell to, they will sell to local restaurants and to the public, but the permits needed to do this are expensive. They added there is only so much they can sell directly to the public.
 - Another participant mentioned they are helping to develop more localized markets through selling directly to the public in Dana Point.

- One participant who fishes out of Newport explained that one of their buyers charges more to pick up their product because the buyer is only picking up from one fisherman. They related this to the small commercial fishing presence in Newport.

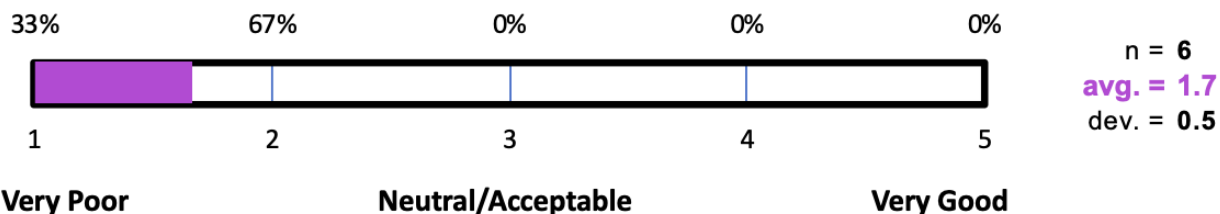
Participant Quotes

“The tariffs were a big hit the last three years, lowered [the price for lobster] from \$17.50 on an opener to \$11 - that was huge because there goes all the money. We're hoping to put some money in the bank, but then it's all gone once [the tariffs] come back around.”

“We do have buyers that come to Dana Point but, like last year when we ran out of buyers because they had no market to sell to, our only option then was to try to find restaurants or maybe to sell to the public - that permit to sell lobsters to the wholesale businesses is outrageous. I mean, it's an \$800 or \$900 permit on top of what we've already spent, \$1,350 or something for the year, for us to license ourselves. Now we have to spend another thousand dollars so we can sell our lobsters. That to me seems pretty ridiculous. That should be something that's a \$25 permit.”

“There is a permit to sell to the public but you can only sell so many lobsters to your neighbors. You want to sell to a restaurant and you want to sell somewhere where they're going to buy a bulk amount because you know if you catch a good catch, it's gonna take you a month to get rid of it to the public.”

6. **Infrastructure** Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Related to infrastructure in the Orange County area, participants discussed the poor availability and quality of infrastructure and services to support commercial fishing.

- Participants described how in Dana Point, there is limited boat parking, little to no gear storage, and a ten-year waiting list for boat slips, which are preferred over having to dock their boat at the wharf for a fee and then using the launch ramp, which is not wide enough to accommodate most boats and gear.
 - One participant added that the docks are in poor condition, and another participant added there is no ice machine and that the restrooms are often locked so fishermen cannot use them.
 - One participant contrasted the state of infrastructure in Dana Point to that in Santa Barbara, where fishermen have access to key infrastructure like ice and gear storage. They commented that it feels as if the county would rather not have commercial fishing infrastructure at the harbor, even though fishermen keep the areas they use clean, and gave the example of fishermen having to sue the county to be able to use the docks.

- One participant highlighted how the fuel dock in Dana Point is one of their least concerns because it is good quality and the person who runs it charges a fair price for fuel.
- One participant described the lack of amenities in Newport Beach even though the harbor receives federal funding to support the commercial fishing industry.
 - They reported that fishermen have to pay about \$500 a month for a private dock or more for a private facility. They added how there are only a couple docks available for fishermen.
 - They explained that bait is not available at the public docks, and fishermen need to go to the wharf, which is further away, to purchase bait.

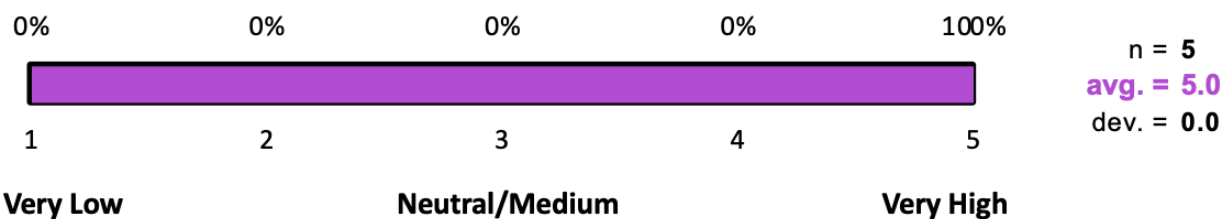
Participant Quotes

“We actually have no commercial infrastructure [in Dana Point]. We have no ice machines. The restrooms at the top of the dock are locked and aren't even open till seven o'clock in the morning, so we can't even use the facilities if we were to need them. [. . .] Our parking is limited. We have nowhere to store gear. The county is nice enough to allot 18 or 20 docks for the commercial guys, but we have absolutely no support mechanisms such as winches. We don't even have a large, wide ramp where we can go down and load a large load of traps - I think it's about a three foot wide ramp. So even that's very, very difficult.”

“In my opinion, if the harbor had their choice, they would do without commercial fishing altogether and just get rid of us. They don't want to see us there. They think that we're an eyesore to the community, the people that walk around, and they don't want to smell us and they don't want to see us, but they love to eat our lobsters. They just don't want to know that we're there.”

“Well, Newport Beach, there's no place to dock your boat, period. You can get a private dock for \$500 a month if you're lucky, or you can go to a private facility and pay another fortune there per month [. . .] We have to go all the way back to the wharf which takes an hour one way to unload gear and pick up bait and you can't pick up bait or offload at public docks. It's a joke. I mean, you can't do anything in the harbor.”

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port's fishing operations?*



Discussion Summary Participants shared the detrimental effects that COVID-19 has had on markets for the commercial fishing industry in the Orange County area, especially the lobster fishery.

- Several participants recounted how they could start to feel the market effects from COVID-19 at the end of the 2019-2020 lobster season. One participant said they knew to sell their lobster catch locally rather than wait for buyers to come through Dana Point.

- One participant communicated how COVID-19 effects rippled through nearly every aspect of the fishery, including export and local markets, and said the public is not currently buying lobsters.
- Several participants explained how the international markets, especially the Chinese market for lobster, were extremely negatively affected by COVID-19.
 - One participant highlighted how the lobster market is half of what it was before COVID-19 but with the same number of lobster fishermen, and added that they cannot get the price they normally would per pound of lobster.
 - One participant explained that local lobster fishermen will be relying on the domestic market during the 2020-2021 lobster season because there are no export markets available. They added how fishermen will likely do what they can to make a profit in these instances, even if it is not economically sustainable.
- Participants mentioned how fishermen only have a few buyers supplying their markets, which are very limited due to COVID-19. One participant added that buyers continue to pick up lobster in Dana Point, but that there are currently almost no buyers going through Newport Beach.
- One participant highlighted that even though lobster prices are lower than usual due to COVID-19, fishermen are still paying the same prices that they were before COVID-19 for bait, fuel, and slip fees.
- One participant shared the belief that management agencies could not respond to the effects of COVID-19 on the fishing industry enough to provide the support needed for local fishermen.
- One participant said they suspected that if conditions due to COVID-19 do not improve, fishermen will continue to not have restaurants to sell to, but they will also likely not have tariffs during the 2020-2021 lobster season.

Participant Quotes

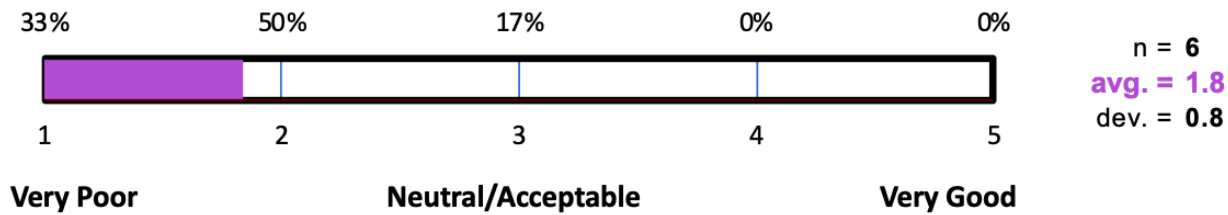
“The COVID thing basically killed us last year. I mean, that was, that was a kiss of death as soon as I saw that on the TV. I texted [name redacted]. And I said ‘we’re in trouble’ and the buyers basically quit coming down a week later. That was it. They were done.”

“All of us have fished long enough. We’ve seen booms and busts in our fishery as far as the marketing part of it, but this is something that is unprecedented that we are going to struggle through. It’s going to probably hit a huge reset button on our fishery.”

“We have weaned [the domestic market] off of our lobsters and they’ve fulfilled all their needs for lobsters with lobster from Maine or everywhere else. There’s no way our domestic market can handle the volume of lobsters that we’re going to produce in the month of October.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary When discussing labor, participants indicated that recruitment and retention of participants in the commercial fishing industry is somewhat poor with regard to the number and quality of new entrants.

- Several participants discussed a steep learning curve associated with entering and surviving in the fishing industry. They added that the quality of the labor pool is better among those who have prior fishing experience.
 - Several participants said they are willing to help new fishermen who enter the industry, but that new entrants need to learn several skills on their own, including areas to catch lobster.
 - One participant mentioned that newer fishermen will sometimes crowd other fishermen and not have adequate gear for lobster fishing, which can be dangerous.
 - One participant added that newer fishermen need to have good marketing strategies to stay in the industry.
- Participants shared the difficulties associated with entering the fishing industry, including the lack of commercial boat slips to support fishing needs, especially in Dana Point.
 - One participant added that those who enter the industry are often serious about fishing because substantial financial investments are required for fishing permits.
- Another participant recounted how they have spoken to several fishermen who have been in the industry only one or two years and are already thinking about leaving.
 - One participant shared the opinion that sometimes fishermen do not stay in the fishery long because they think they will get rich fast, but they do not have a love for the ocean.
- One participant highlighted the substantial financial investment needed to start in the fishing industry and to be competitive, which is one reason why when older fishermen start to leave the fishing industry, newer fishermen are not coming in.

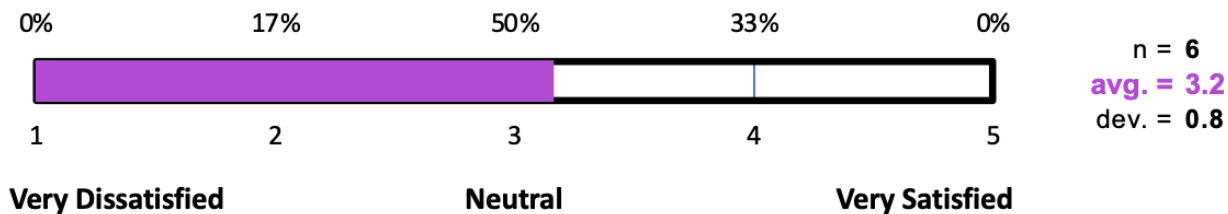
Participant Quotes

“There is a huge learning curve to any business you get into, and I came from the fishing industry so I knew a little bit about fishing. If you're fishing with a rod and reel, a trap, I think there's a lot of similarities between reading the electronics on the bottom and all that sort of stuff. But if I were to come off the street and say ‘I'm tired of sitting behind a computer and I'm going to get into the fishing business,’ if you ever catch up, it'll take you 5 to 10 years to be competitive.”

“I feel that it's very hard for a new entrant to get into the fishery in Dana Point mainly because of the lack of slips and [the Harbor] will not let them go into a recreational slip and commercial fish out of a recreational slip. It's either in their commercial slips or on a trailer and most people aren't going to want to launch the trailer every morning, so they don't do it.”

“The problem is the younger guys don't have the money to buy into the fishery right now. If you're going to do it right, you need a couple hundred thousand dollars to buy a permit, a good boat, and good gear to maybe be competitive, and that's as the old guys get out because of maybe their age and their limitations. You don't have the younger guys moving in behind them because they don't have the resources.”

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Related to job satisfaction, several participants explained that fishermen enjoy what they do and continue to fish despite the challenges they face.

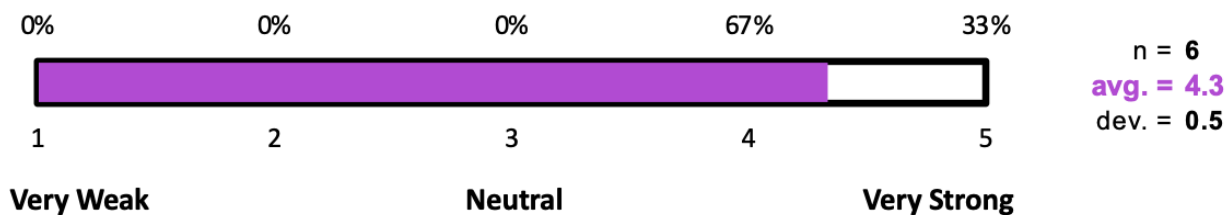
- Participants shared how they grew up fishing and developed a love for the ocean.
- One participant shared the opinion that more established fishermen likely have greater satisfaction than newer entrants.

Participant Quotes

“Well, most of us do it because we enjoy it. You don't know us personally, but I've been on the water, gosh, since I was 12 years old and [name redacted] has been fishing forever. [Name redacted] grew up fishing. I know [name redacted] up in Newport has been around forever. So we do it because of the love of the ocean and I think I had mentioned that this is not a full time career for me, but I've been fishing so long, I hate to give it up and it gets in your blood. So for us, there's a lot of satisfaction.”

“The quality of it is awesome, once you're out on the water, doing what we do. I can't miss it for anything. I'll take the stakes, I'll risk my life, whatever I can. I love fishing. It's a challenge, but it's worth the challenge.”

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Overall, participants reported they felt social relationships within the Dana Point fishing community were strong.

- Several participants shared how fishermen generally try to get along with each other and emphasized that they know others will help them if they are out on the water and need assistance, such as needing someone to tow their boat or retrieve their gear.
- One participant explained how there is more camaraderie among fishermen who have been in the port longer, compared to newer fishermen.
- One participant identified one fisherman who has a leadership role in the fishing community, but added how it can be difficult to play many roles like leader, marketer, and fisherman.
- One participant from Dana Point assured another participant from Newport Beach that they are welcome with open arms in Dana Point whenever they like.

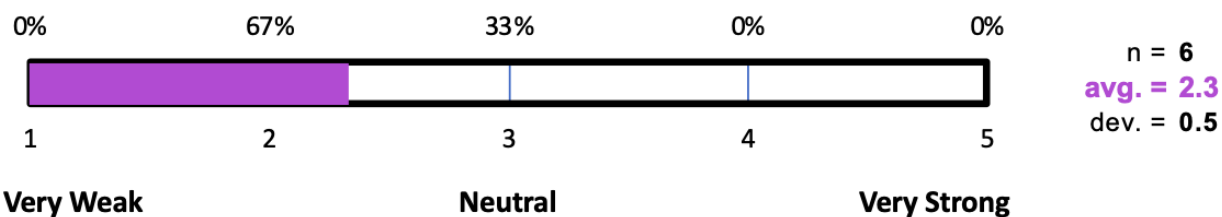
Participant Quotes

"I think we all try to get along as best we can. Of course, at times we all have our issues, but as far as trying to work together - if something was to happen to somebody else, oh, we're right there on top of it. We're going to go help somebody else; there's no doubt in my mind."

"The people that fish together for years and years, we're all there to help one another, and it's a wonderful thing, it really adds to the fishery. You don't find that with newcomers very often."

"As far as our leadership and our harbor, I think we've been very lucky. We've had [name redacted] who's very proactive as far as speaking up for us and our rights."

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary With regard to the fishing community's relationships with external groups, several participants expressed the belief that the broader community generally does not support the local fishing industry.

- Several participants explained how the local lobster festival is indicative of this because vendors at the festival do not sell local lobster. One participant commented that by selling local lobster, this would help to inform the local community of what fishermen in the area do. Another participant shared that they were asked to go to the festival and talk to the public about the local fishing industry and about the value it adds to the community, yet the festival continues to sell lobsters from the East Coast rather than local lobsters.
- One participant mentioned how the local fisheries are sustainable, but that outside groups are constantly trying to undermine them and shut the fisheries down.
- Another participant said that due to the small commercial fishing presence in the area, fishermen do not matter to the broader community.
- Several participants described how Newport Beach does not have a commercial fishing port to support fishermen, and related this to the community's lack of appreciation for the fishing industry.

- One participant shared how fishermen in Dana Point have good relationships with the local wardens and marina staff, but added that the district attorney (DA) is often unwilling to prosecute those that break fishing laws based on reports from local officers alone, and that the DA requires more substantial evidence such as video footage in order to prosecute.
- One participant described how the group Harbor Partners out of Newport Beach are an indication of the external community's support moving in a positive direction in terms of supporting fishermen in their efforts to be more local and sustainable.
- One participant said they believed fishermen should engage more with politicians, business people, and others who can help fishermen meet their collective needs.

Participant Quotes

"Our community at Dana Point actually has a lobster festival which happens two weeks prior to our opening of our fishery, and they don't even use our Pacific spiny lobsters. They bring in lobsters from Maine and to me, that's ridiculous. Support us as fishermen in your local community; sell our lobsters, do it within our season. [. . .] But with that lobster fest, it would have opened up the knowledge that we have lobster in the Pacific Ocean. You talk to most people - they don't even know that we have [a lobster fishery]. They're like 'what? They don't even have claws? You have lobsters here?'"

"[Newport Beach fishermen have] been pressured and lobbied to be pushed out of that Harbor. Like we've used that little commercial public access dock to try to load traps in the past up there and everyone, every entity, every municipality will try to lobby and get you out of there as a commercial fisherman, because we're the dregs of society."

"I think there's a couple things that I find difficult. [One] is that our Fish and Game - and we have a very good rapport with our local wardens in our marina - but it's very tough if there's an infraction or a breaking of the law, it's very hard for them to prosecute because of the unwillingness of the DA to take a case. They've got to have this cold hard evidence rather than the word of an officer. I mean, the officers are sworn into this oath to speak the truth and yet they don't take the truth from them. They have to have hard cold footage of this happening as opposed to the officer catching them. So I find that a problem."

"We need to be wise enough to get outside of our club and talk to the politicians, the business people, the people that run the Harbor and do it properly and follow an agenda that we may be given. I think we as fishermen have let ourselves down in that respect. [. . .] I think if we're able to voice our opinion and just get the word out that we're all searching for the common goal of having the ocean remain clean and be able to support us all, and I think this is where we've let ourselves down in the fishery because fishermen are really an independent lot and I attended several of these meetings and a lot of people say 'well, I don't want to give any input' or 'screw that meeting, I don't want to go cuz they don't know what my needs are.' But I think at the end of the day, [. . .] we all want the same thing, and it's just how we get there. If we can agree and share some of our needs, wants, and desires, I think we all come out a little bit better."

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary One participant reiterated the challenges associated with commercial fishing in Orange County. Another participant added that if fishermen are constantly sharing how they are disgruntled with management, then this is something that needs to be addressed.

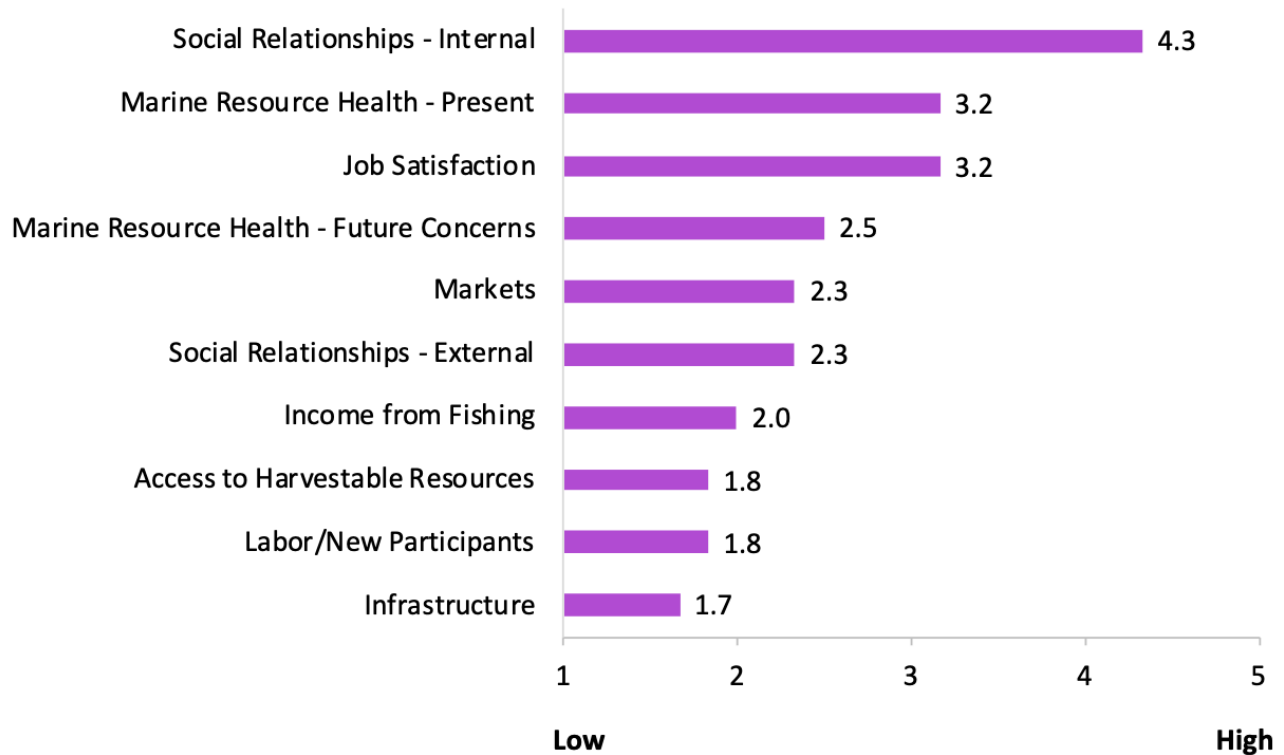
Participant Quotes

"I will interject real fast and compound what everyone has said already. The difficulties of berthing, difficulties of just competition and being like what [name redacted] said a lot earlier about trying to put your foot in a shoe that's already full of feet. It's a very daunting endeavor to be able to be a commercial fisherman and try to get your feet in and actually survive."

"I guarantee every single group meeting you [the MPA Human Uses Project Team] have is a pity fest - fishermen dumping on you, telling you all their woes and how they're pissed off and how they're disgruntled and how everything else [. . .] If the commonality of that theme is what we're at right now, there's something wrong with the management."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

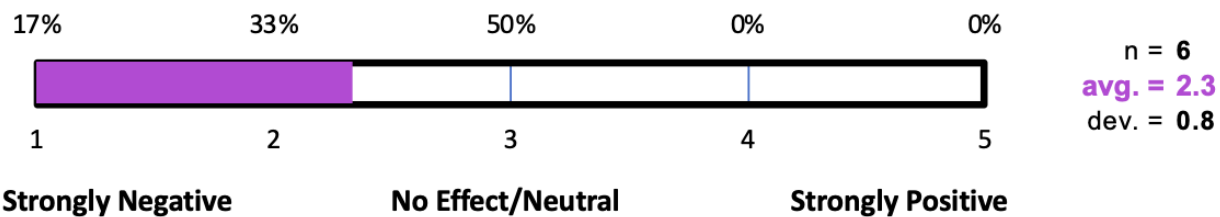
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary When asked about ecological outcomes or impacts from the MPA network, several participants shared their perspective that the fisheries in the Orange County area were sustainable before MPA implementation, but that the MPAs have diminished this.

- Participants described their opinions about the negative effects that MPAs have had on the abundance and market quality of lobster.

- Several participants said that lobster abundance used to be greater before the MPAs were put in place, but now, with the same number of fishermen and traps in a smaller area outside MPAs, there is less lobster of sufficient market size to harvest.
- One participant said that fishing pressure in smaller areas is affecting the ability of lobsters to repopulate those areas due to the removal of legal, reproductive sized lobsters, which results in fewer market quality lobsters. They added that fishermen do not see lobster spillover outside of MPA boundaries.
- One participant described how fishermen are no longer allowed to fish California sheephead in the MPAs, which in their opinion, has resulted in increased lobster predation and less lobster abundance.

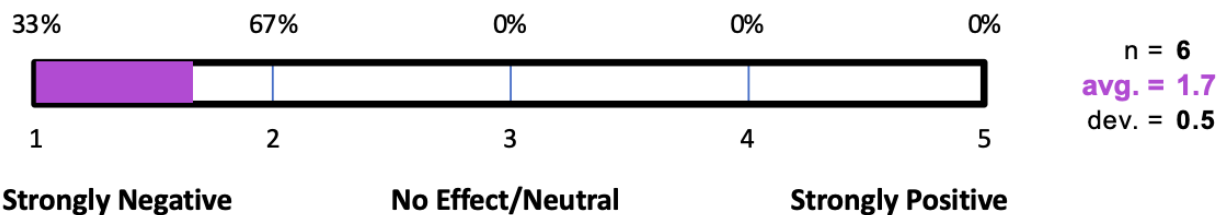
Participant Quotes

“If you had 400 traps in the water at the time [before MPA implementation] and you lose 100 traps because they close the area, you don't take those traps home. You take them down to where your other traps are. So now, the abundance down below [the MPAs] is not as much because you're fishing more gear down there.”

“For size, you get more shorts because more more legals are being taken out and it's hard to repopulate the area when you're fishing to where you catch almost all the legals in the season it seems, and all you're catching now are shorts at the end of the season or in the middle of the season, so the quality isn't there as well.”

“Fishing sheephead is not just a marketing strategy. It's also diminishing the amount of predation you would get on the lobsters and your lobster traps [. . .] now our lobsters get pretty predated upon by sheephead on a regular basis. That's a whole other issue that we had to deal with. So as far as abundance of resources, there's resources there, it's our inability to be able to harvest them.”

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary Participants shared how the MPA network has added to the difficulties of making a living from fishing, and has resulted in negative effects with regard to decreased fishing area.

- Participants explained how the MPAs have resulted in the displacement of fishermen outside of MPAs which has led to extreme gear compaction and crowding along MPA boundaries. As a result, fishermen cannot catch the amount of resources they need to support livelihoods from fishing.
 - One participant noted that fishermen now have to compete for the diminished area in which they are allowed to fish.
 - Another participant described how they have had to move further south to fish.
 - One participant emphasized that fishermen are still trying to work through the dynamics that have emerged as a result of MPA implementation, and are trying to determine how fishermen can continue to make a livelihood from fishing.
- Several participants shared how the fishing fleet in the area was cut in half after MPA implementation.
 - One participant explained that the MPAs were one factor that made them decide to leave the Orange County area and move to another state. They described how they were no longer able to fish the diversity of species they need to sustain their livelihood, and added that the MPAs made life harder for them and their family.

Participant Quotes

“The compaction kills us because we're all fishing in one little area to try to get what little bit [of resource] is able to come out of [the MPAs] in the Orange County region.”

“[The MPAs] took away some of the best area that we had. It's gone forever. They took away the rocky kelp area that most of us fished in and they spread us all back out to the edges where we all had to fight for what was left.”

“I think once the closures happened, it's like they took a living away from me and they made it into a hobby, and fishing kind of - more or less - became a hobby.”

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants shared that MPAs in their area have closed much of their fishing grounds, and highlighted two specific MPAs along Laguna Beach which have negatively affected fishermen in the area.

- *Laguna Beach State Marine Reserve (SMR)*: Participants described how this MPA closed off several square miles of the Laguna Beach coast that fishermen can no longer access, and said that this MPA could have been smaller with better spacing in relation to surrounding MPAs, which could have allowed fishermen to still fish some of this area.
 - One participant shared how this MPA resulted in a decrease of almost 50 percent of their income from fishing.
- *Laguna Beach State Marine Conservation Area (SMCA) (No-Take)*: One participant highlighted that this MPA includes an artificial reef that was built to cover a pipeline. The pipeline needs to be serviced, which disturbs the habitat, yet fishing is not allowed here.

- One participant noted how this MPA made some of the best Orange County fishing area inaccessible to fishermen.

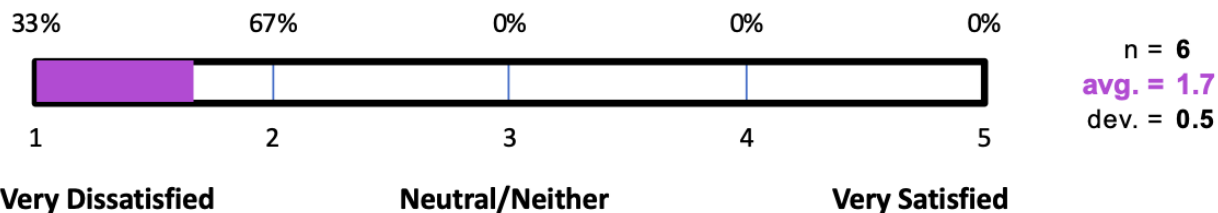
Participant Quotes

“Look at the size of that MPA they put in Laguna Beach, with all the [other MPAs around] it. It's like they hated us. Look at every other MPA - [the Laguna Beach SMR] is a completely different shape. And they go ahead and put this big giant triangle and take the entire coast of Laguna Beach, except for a mile and a half, two miles at the bottom. That's ridiculous, that is absolutely ridiculous. They could have taken prime area but made it much smaller and left a lot of good area and you would have still had a lot of good guys left in this fishery.”

“[The Laguna Beach SMCA (No-Take)] took the entire Aliso Beach pipeline which is an artificial reef that was established to cover the pipeline. That's a non-natural habitat that they had closed to us, but they can't close it because they still need to service it, yet it's closed to us fishing. That is a no-take conservation area that only allows them to go in there and diminish and destroy the habitat that they put in place, but we're not allowed to harvest from it.”

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants shared their perspectives that commercial fishing interests were not seriously considered during the MPA implementation process, nor are they considered in the current management of MPAs.

- With regard to current MPA management, participants expressed how there is not a clear agenda for achieving MPA goals, and that management is overwhelmingly one-sided with few opportunities for fishermen involvement. They added that it seems as though fishermen are being managed out of their livelihoods when areas are closed off from fishing and designated as MPAs.
- Several participants recounted spending much time and money attending meetings during the MPA planning process, and said that when fishermen got up to speak, it seemed like no one would listen or care about what they had to say. They explained how fishermen were told they could go to MPA meetings, but did not feel that their input would prevent areas they wanted to continue to access from being designated as MPAs.
 - One participant shared how they spent a lot of time during the MPA implementation process trying to communicate how the proposed MPAs would devastate the local fishing community and negotiating for less or different MPA areas.

- One participant recalled how during the MPA planning process, representatives from Laguna Beach said the local community was strongly in favor of the MPAs, but that the opposite was true.
- One participant shared how funding for the MPA planning process was dominated by special interest groups.
- One participant said they felt that an individual from Ecotrust supported and collaborated with the local fishermen during the MPA planning process.
- One participant said they believed that the MPA process was unfair, especially for Orange County fishermen, given that they lost almost the entire Laguna Beach coast for fishing.

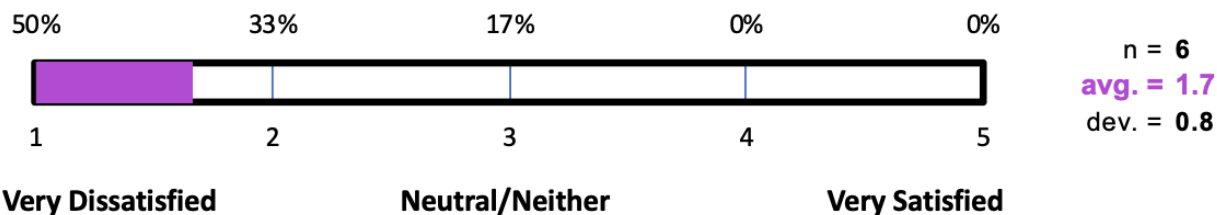
Participant Quotes

"I was always sitting and listening and watching [during the MPA planning meetings], and I could tell by the atmosphere in those meetings that they didn't even care that we were there. [. . .] I just didn't feel like we needed to even be there because we weren't being listened to."

"This thing's been a travesty since the onset and as fishermen, we all knew it was coming. We knew we were going to get railroaded. We knew we were going to get sold down the pike. It is basically an allocation from fishermen deriving livelihoods from the ocean and giving taxes and supplying seafood to the local markets, as well as exporting."

"What are we managing? Because with the Cowcod Conservation Areas and all the closures we did for the rockfish closures, we had an agenda. Our agenda was to reestablish, rehabilitate the diminished bocaccio species and then the cowcod [. . .] Are we managing the social and economic part of the fishermen and making sure that they stay out of [the MPAs]? The bottom line is [the environmentalists'] agenda is different from ours. And as far as the management, I see like CDFW and all the politics of the state are managing us out of our livelihoods, and we're just trying to survive."

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary One fisherman shared their experience with involvement in MPA monitoring efforts, and suggested additional opportunities where fishermen can be more involved in MPA monitoring, especially with regard to tagging and monitoring lobsters.

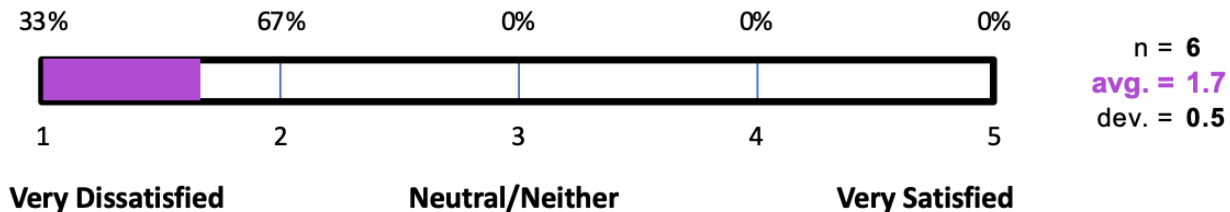
- They added how there are currently not many opportunities for collaboration with fishermen in MPA monitoring, and that they had a difficult time getting involved in lobster tagging studies. They believed MPA monitoring studies like those involving fish counts are done by unqualified and untrained individuals.

Participant Quotes

“Some [fishermen] got to tag lobsters [related to MPA monitoring]. We did a few; we tagged lobsters and we sized them.”

“There's not vessels of opportunity [for fishermen involvement in MPA monitoring]. I'm one of few vessels only because I lobby hard and I pushed hard to do a little bit of tagging.”

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary Participants said they believe that MPA enforcement is unfair, and that the rules and regulations disproportionately affect commercial fishermen.

- Several participants described how fishermen are not allowed to fish or anchor in MPAs while other uses are allowed, including surfing and sand replenishment.
- One participant communicated how there is a lack of enforcement for some groups, such as recreational fishermen, including individuals who dive for lobster at night and others who use pole spears.
 - One participant explained that they were told this is due to budget concerns associated with not being able to pay the local wardens.
 - Another participant explained how, despite this lack of enforcement for some groups, commercial fishermen face the possibility of losing their fishing permits if they violate MPA regulations.
- One participant cited how commercial fishermen are penalized if their gear floats into an MPA even if they are not fishing in the MPA.
- Several participants said that local fishermen enforce each other and, as a result, have not violated MPA regulations.

Participant Quotes

“There's not been one commercial fisherman that's violated that MPA or has fished inside the closure [. . .] we've all abided by the rules and we're doing really well at doing it. And we get no reward for it, for being sustainable responsible fishermen [. . .] there's no pat on the back.”

“There's no enforcement. You can drive up to Laguna on a weekend night and I guarantee you're gonna watch a diver come out of the water with lobsters and run to his house.”

“I like the wardens, and we actually have a good relationship with them. And if you talk to them about [MPA enforcement], they'll say it's budget concerns and they can't get paid their overtime money if they go out there and work and try to catch someone. And that just seems pretty sad that the state is at that point that they won't give them the money to enforce the laws.”

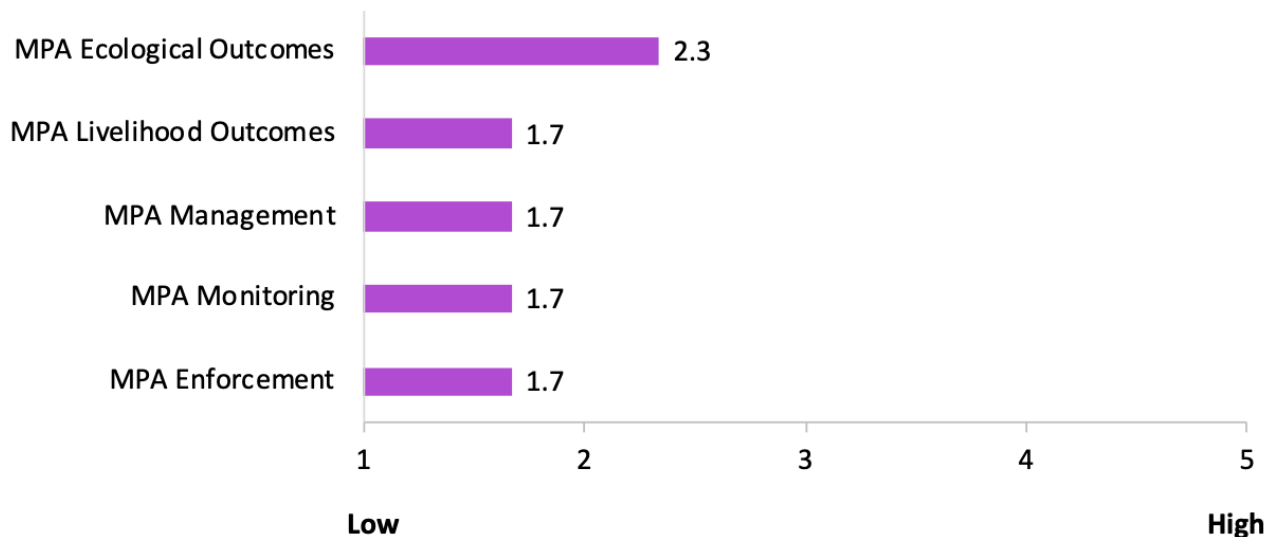
19. MPA Overall Any additional comments or concerns about the MPAs and MPA management you would like to communicate?

Discussion Summary One participant shared how the MPAs in the Orange County area not only decreased their fishing ability, but also their children's opportunity to engage in recreational activities along Laguna Beach.

Participant Quotes

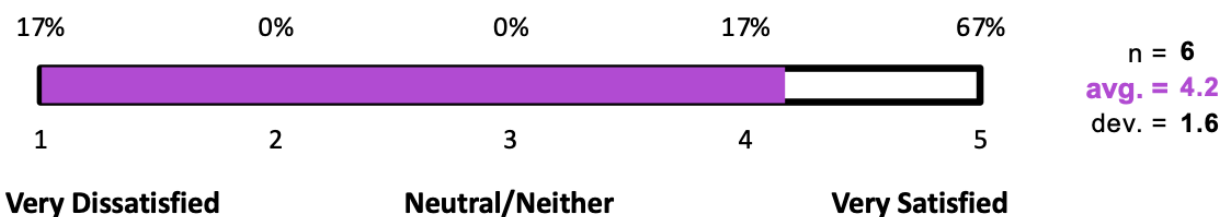
"I live in Laguna Beach and we live right by the beach, and not only did these MPAs take away fishing from us as as lobster fishermen, but it took away my children's opportunity to go down to the beach and go spear fishing or to go fishing off the beach - they can no longer do that here in Laguna Beach. That was kind of what Laguna Beach was built upon; it wasn't just artists, it was fishermen and people enjoying the beach for more than just sitting there with their frisbee."

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



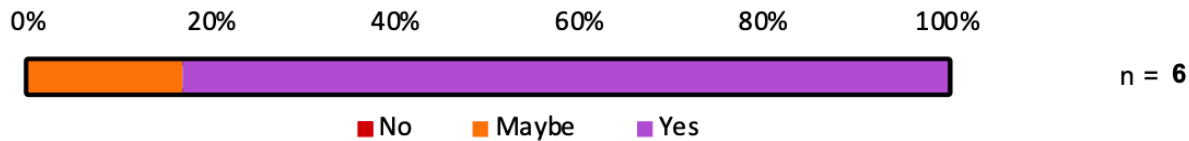
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future *Would you be open to participating in a virtual focus group or meeting like this in the future?*

(**Note:** For the following figure, the length of the orange bar indicates the percent of participants who responded 'Maybe' to question 20b. The purple bar indicates the remaining percent of participants who responded 'Yes.' If participants responded 'No,' a red bar would appear.)



20c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Participants said they appreciated the opportunity to have their voices heard through this focus group, and believed members of the Project Team were attentive and listened to what they had to say.

- One participant noted the timing of the focus group would have been better for fishermen if it was held earlier during the summer months and not around the opening of the lobster season.
- Another participant shared how they are willing to help their fellow fishermen and participate in these conversations in the future.

Participant Quotes

"I appreciate you [the Project Team] for reaching out and actually trying to do something [. . .] trying to get our voices heard a little bit."

"This time of year, our time is very budgeted and this timing was pretty horrible, but I thank these guys for coming. [It would] have been nicer to have done this in a sooner time fashion."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network *Members of Oceanside's Commercial Fishing Community*

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port: Oceanside*

Date: April–May 2021

Participants: Markus Medak, two anonymous participants

*In response to participant needs, the Project Team held one-on-one conversations with each participant rather than conducting the conversation in a focus group format. Participant perspectives have been combined and are presented in this summary in aggregate form.

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

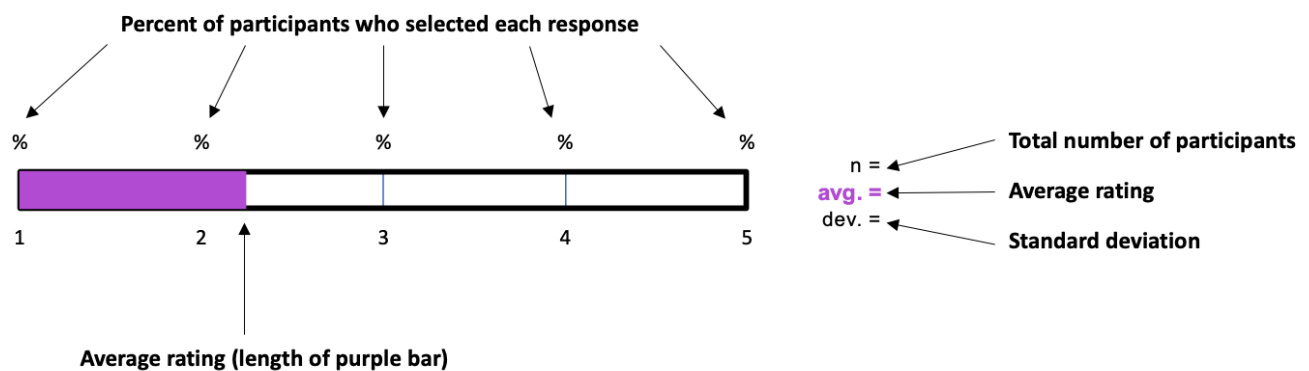
Overview

Between April and May 2021, the Project Team held one-on-one conversations with three commercial fishermen operating out of Oceanside. A detailed summary of the conversations is captured below, including:

- the numerical scores (gathered orally via phone) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.³

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 17 and 25 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



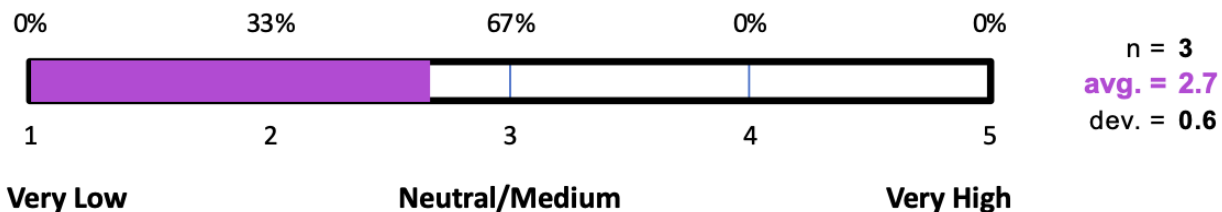
Our Project Team would like to express our appreciation to the three Oceanside fishermen—Markus Medak and two anonymous participants—for their time and contributions to the conversations.

³ The quotes throughout the document came from various participants including those who wish to remain anonymous.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants rated the current health and sustainability of marine resources in Oceanside between low and medium. All participants discussed the negative impacts of local beach nourishment projects on fisheries. They also identified recent drastic reductions in local kelp forests.

- Participants believed sand replenishment in local beaches has resulted in the loss of natural shallow reef habitat off the coast of Oceanside. Specifically, they said imported sand has filled in lobster habitat in shallow reefs and ledges, which has negatively affected the number of California spiny lobsters that local fishermen catch.
 - One participant recalled imported sand used in past beach nourishment projects containing high levels of dirt rather than clean sand, which muddied the water. They said the resulting poor water quality negatively affected invertebrate populations and reduced their landings of California spiny lobsters.
- Participants reported substantial kelp loss over the last four to five years, which they believed has negatively affected the abundance of California spiny lobster populations that support the main fishery out of Oceanside.
 - One participant also described impacts of kelp forest reduction on the sportfishing industry. They said kelp bass populations have declined and the remaining kelp bass are smaller.
- One participant described different levels of concern across species. They reported the bluefin tuna fishery has recently been productive for local fishermen. They were concerned that there is no longer a sardine fisherman out of Oceanside, which they believed might be indicative of declining health of California fisheries more broadly (i.e., if sardine populations are not healthy enough to support a small local fishery, populations of other fished species that rely upon sardines as forage feed may be unhealthy as well).
- One participant believed there was a healthy abundance of California spiny lobster and rock crab, and attributed this to low fishing pressure from the small number of participants in Oceanside's commercial fishing fleet.

Participant Quotes

"A lot of habitat in Oceanside was impacted by beach nourishment projects. There have been several large-scale beach nourishment in North County San Diego, and it is apparent - as fishermen - this has had an impact on catch. A lot of the reefs get covered up when they do beach nourishment. I've seen it a couple times now. Every time after a big beach nourishment

project, lobster catch falls flat on its face. It appears that it mainly affects juveniles. That's what you really see up in shallows: large numbers of juveniles. The beach nourishment sand covers up surfgrass habitat and shallow reefs. Most invertebrates have a hard time when there's a large amount of sediment in water, so it makes sense that when you're dumping millions of cubic yards of sand, that it has an effect. But it is difficult to prove."

"People that run cities don't see that the sand goes out and covers up the reefs, destroys the habitat. They're not marine biologists, and neither am I, but I've seen firsthand what happens. In Leucadia especially, they took sand from an inland project, and it wasn't sand, it was more of a dirt, and they dumped it on the beach. It turned the water to mud. Truckload after truckload of dirty sand. The habitat never recovered. They built a resort on the bluff, now it's hard to catch anything on the reef. The reef just filled in. I have all these plots on my chart from before when there was reef, in the 1990s to early 2000s. Now there is no reef. What was lost was all the little ledge areas for lobsters to crawl back in. We've lost habitat. I won't say it won't come back. But if we continue to put sand on the beach, they won't come back."

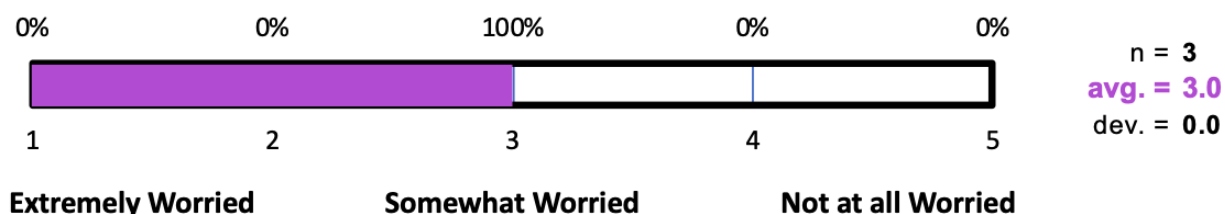
"We survive on [the California spiny lobster] fishery. We want it to be healthy so we can survive in the future. That's why when they dump sand on the beach, that's destructive. We've brought it up at Fish and Game Commission meetings, but never heard anything more. They said they'd look into it. Nothing. Money talks. The tourist industry is much larger than fisheries. But the health of the ocean matters."

"Coastal SoCal is not in great shape. An awful lot of kelp forest is disappearing, and there's been an especially marked loss of kelp over the last four to five years [...] I fish lobsters, and kelp is an important part of their habitat."

"The lobster population isn't like it used to be. When the kelp went away, so did the lobsters for the most part. I'm not saying all of them, but a majority of the lobster went away."

"It depends which resource you're talking about. Some species have been quite good, but others we are pretty worried about. Bluefin tuna fishing has been fantastic for the last four to five years now, and several fishermen from Oceanside have taken advantage of that... but the state of sardines in California is precarious, so that's got potential to be an issue. There was a guy that used to sell sardines out of Oceanside and that's not happening anymore. When [sardines] get heavily impacted, that's not a good sign for the rest of the resources."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants were somewhat worried about future marine resource health across species due to several factors including climate change and the long-term loss of kelp forests.

- Two participants identified concerns related to climate change. One participant was worried about warm water trends leading southern species to migrate north toward the Southern California Bight. Another participant believed warm water trends are a result of natural cycles and will adjust back to normal.
 - One participant said that timescale matters when discussing future worries. They were less worried about the health of marine resources in the short-term, but expressed concerns about the impacts of climate change ten years out.
 - One participant expressed concerns about highly migratory species like tuna due to challenges in international fisheries management in addition to impacts from climate change.
- One participant reiterated their concern about kelp forest loss, and said they were worried about cascading negative effects on larval recruitment.
- One participant was concerned about rockfish populations due to increasing pressure from the growing Oceanside sportfishing industry.

Participant Quotes

“Personally, I’m quite concerned about how warm the water has been getting every year. We’ve had some good fishing here because of it, but I don’t think it’s a good sign for the North Pacific. We’ve really seen an awful lot of fish that used to spend most of their time significantly south of here, but are now spending almost all year in the Southern California Bight. We’re seeing the same thing that you can read about in the newspapers; habitats and home ranges of species are moving north.”

“The warm water cycles we are in are a natural occurrence; we will come back around.”

“Depends on how long an outlook you’re looking at. For the next ten years, I’d be at ‘Slightly Worried.’ I think after that, I start to be concerned. I still think there’s good potential to make a good living in California for a while here. I’m investing in other fisheries, I’m not looking to get out. On the other hand, I’m not pushing my son hard to take over the business. [...] It matters what timescale you’re looking at.”

“I think local management of species in California and the US is not bad. It’s pretty decent for most species, but I think long-term, I’m concerned about climate change. It’s a pretty big concern of mine. Highly migratory species like all tunas, where they are spending time in other countries, or on the high seas, many are going to be in trouble. It’s so hard to manage international resources, and very little worldwide will to do that. Yellowfin tuna are not a particularly valuable species out of Oceanside, but they sure used to be out of San Diego. If you look at that fishery nowadays, it’s extremely precarious.”

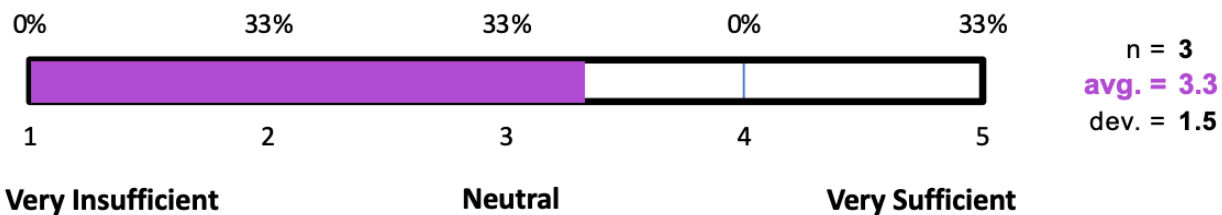
“The kelp that died off hasn’t come back, and that concerns me. I’ve been fishing out of Oceanside since 1995, and out of San Pedro before that. I’ve seen some pretty good changes in Oceanside [...] There were kelp beds so thick you didn’t want to drive a boat in there, and now

they're gone. They're gone. Sure would be nice if somebody could tell me [why]. Does anybody care?"

"They added another sportfishing landing, and there are more charters, more private boats fishing than ever. Oceanside's population is growing. My friends in the sportfishing industry are catching mostly small rockfish, and it's really hard to get big enough fish for their customers. I'm worried about those fish populations in that area, with more boats targeting them."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants shared different perspectives related to Oceanside fishermen's access to harvestable resources, from insufficient to very sufficient.

- One participant related Oceanside fishermen's insufficient access to resources to local MPAs. They questioned whether the loss of fishing grounds as a result of the closures has helped to improve marine resource health. For a more detailed discussion related to MPAs and how they have affected fishermen's access to marine resources, please see the **Discussion Summary** on page 19.
- One participant said Oceanside fishermen's access to harvestable resources is comparable to the rest of southern California, and is sufficient overall. They indicated southern California fishermen should expect to travel to harvest available resources.
 - One participant believed their access to harvestable resources might be improving due to the small number of participants in the Oceanside commercial fleet relative to past participation levels.

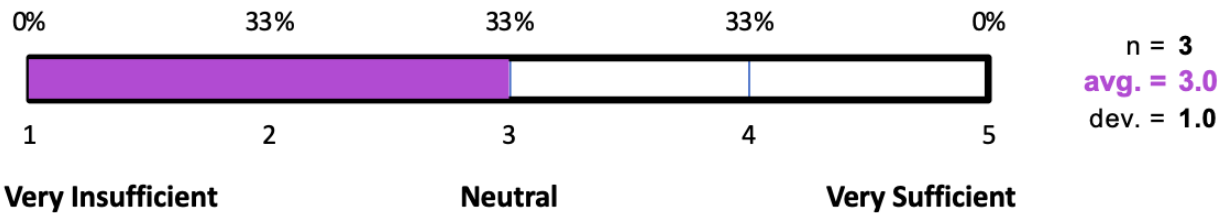
Participant Quotes

"Compared to the history of it, access is insufficient now. We've lost nine square miles of fishing area due to the MPAs. It's about more than the loss of area... I would like to know if my and other guys' sacrifice is gonna help. Is it working? Is the quantity and quality of production of resource improving there [in the MPAs]? Are we getting overflow into other areas? That was the thing they promised."

"Access is pretty good overall... in terms of resources available, there are quite a few. From LA to San Diego, all the ports have got access to pretty much the same resources. Fishing in SoCal, you have to be willing to travel long distances."

“There are not many fishermen in Oceanside. Only about three fishermen along the coast, and one that fishes offshore. The numbers of fishermen aren't going up. There are fewer [commercial] fishermen, [...] less pressure from commercial lobster guys, so [access] might be getting better for me.”

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants’ views about income from fishing to support Oceanside fishermen’s livelihoods ranged from insufficient to sufficient based on the need to take on other jobs and costs compared to revenue.

- One participant rated their personal income from fishing as insufficient. They said it is difficult to support a living from commercial fishing alone, and are looking for other opportunities to expand their income.
- One participant said their personal income was sufficient in the past, but increasing operating costs (i.e., license fees) in combination with regulatory changes (i.e., recent lobster trap tag requirements) led them to rate their current fishing income level as ‘Neutral.’
 - They reported not earning enough from fishing to hire crew members, despite their preference for fishing with crew. They said they are unable to purchase another Lobster Operator Permit, which would help increase their income from fishing, because of the financial barrier to obtaining lobster permits.
- One participant believed that, overall, Southern California fishermen are doing fine financially. They stated income levels vary by fishery.

Participant Quotes

“It’s lots of work for a few dollars. Tough way to make a full-time living. You can do it, if you’re willing to work every day. I’m looking at other ways to bring in income.”

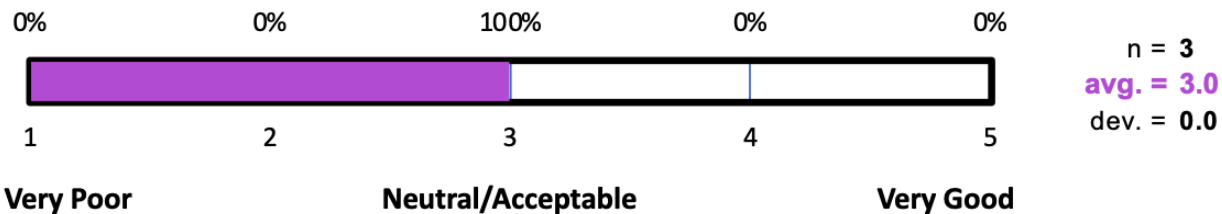
“In the past, [income has] been sufficient and very sufficient. But the combination of things - loss of habitat, destruction of habitat, reduction of equipment [trap limits], loss of area - all of those... I’ve taken a loss. But I’m able to survive. I’ve had to change up my style a lil’ bit. I work alone now, which is tough as you get older. I’d like to have a crew member, but with the reduction of [fishable] area, it’s not economical to have someone. If it gets insufficient, I’m no longer gonna be a fisherman. Other guys, mommy and daddy keep them afloat, or they have other sources of revenue. I don’t have that one. I’m sure there are other guys in the ‘Sufficient’ category. They work more hours, more days. I don’t live at the harbor. I like to have life outside my work.”

“I have to buy another permit if I want to fish more than 300 [lobster] traps. I’m at a point where I don’t want to retire, but I don’t want to buy another permit. I want to keep working hard for a few more years, but the state has hog-tied me.”

“The cost of business keeps going up. Licensing made a big jump in the last few years, the cost of permits have gone up two to three times what they were; I think it's around \$900 now [for a commercial lobster license], not too long ago it was \$300. After they made the reduction in traps, [now we need] tags on there, and the tags aren't free, they are charging us. You got permits, fuel, bait, insurance, slip rent - every one of those, every year, goes up. The cost of wire, rope, buoys, hauling the boat out to get painted is over \$2,000. It all adds up.”

“Overall, fishermen in SoCal can earn a decent living if they work at it. Got a lot of colleagues that are doing fine, but not getting rich. But it depends, costs are highly variable. Depending on the fishery, it’s a big difference.”

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary All participants rated the quality of markets available to Oceanside fishermen as neutral/acceptable. Participants noted the lack of buyers in Oceanside, which they said limits fishermen’s ability to negotiate prices. Participants believed 2021 California spiny lobster prices were the highest they had ever been.

- One participant said there are no local markets in Oceanside, while another participant identified two buyers available to Oceanside fishermen, both from out of town. They said some Oceanside fishermen deliver their own product to market, which can be logistically challenging.
 - One participant said the port lacks sufficient infrastructure for fishermen and buyers to conduct business in Oceanside. For a more detailed discussion related to infrastructure, please see the **Discussion Summary** on page 9.
- One participant stated they are in the early stages of planning and developing a farmer’s market model for Oceanside fishermen to sell their catch directly to consumers. They reported being inspired by the success stories from a similar marketing structure in Santa Barbara harbor.
- Participants reported the 2021 price for California spiny lobster was the highest it had ever been compared to an unusually low price in March 2020 due to the COVID-19 pandemic. For a more detailed discussion related to COVID-19 impacts, please see the **Discussion Summary** on page 11.

Participant Quotes

“There are no real markets in Oceanside, so it’s markets from other cities, either from San Diego or up north. A lot of them come down to the port, but there are no real markets in Oceanside.”

“For the most part, there are only two buyers in Oceanside. More buyers, for me and other guys fishing, is better. [...] I don't know that the Oceanside harbor makes it easy to participate in the buying process. There's really only one guy showing up down there, so you're not going to get a good price for your products. It's good to have a free market. But other than price, Oceanside is not that good as far as markets.”

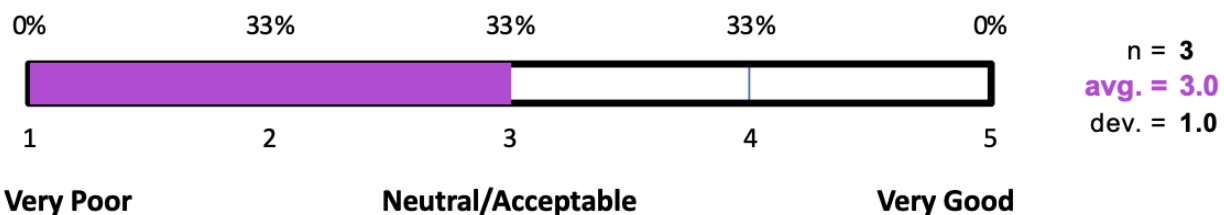
“There are quite a few Oceanside guys delivering products. Infrastructure does not exist for markets in the port. It is more logistically challenging when you're delivering your product, but in terms of costs, it doesn't change much.”

“We are working to set up a farmer's market in the future, [because we are seeing potential customers] who want farm-to-table opportunities [for seafood]. I heard about Santa Barbara fishermen working together to help build a market to sell their catch.”

“The price we got this year [for lobster] started at \$17 per pound and quickly went up to \$20, \$30s, \$40s, \$43. It didn't stay there [at \$43 per pound] long, it started dropping and stayed \$31-32 per pound, where it finished. Compare that to last year, when it finished at \$13 per pound.”

“The 2019 season started normal, low. When the price is \$20 per pound and up, it is worth fishing; less than that, it's hard to turn a profit. Once COVID hit after Christmas, that was it for the Chinese buyers. Then I sold to restaurants. It's expensive for a receiver's license, to do it legally. They [restaurants] weren't buying much volume. The next year, lobster price went higher because of trade wars with Australia and China. In March 2021 it ended higher than it has ever been.”

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants reported fishing infrastructure and services in Oceanside varies from poor to good. They identified a lack of availability and support for key infrastructure.

- Participants said that compared to other ports in Southern California and in other parts of the country, Oceanside has very little infrastructure support for commercial fishing activities. They mentioned there are no ice facilities, gear storage facilities, or cranes to load and unload catch. They believed support for the Oceanside commercial fishing industry is not a priority because the harbor primarily serves recreational users (i.e., recreational fishermen and recreational boaters).
 - One participant stated harbor management's allowance of dockside commercial fishing activities is better compared to years past (i.e., new designated loading area for buyers, citations are no longer given if gear is stored in the parking lot short-term, etc.).

- One participant mentioned there were written plans several decades ago to build a loading dock with facilities to support commercial fishing, but the dock was never built due to lack of funding.

Participant Quotes

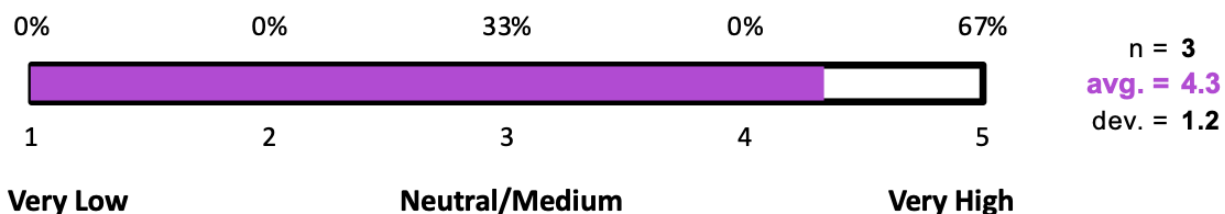
“It’d be nice if there was some gear storage in the harbor. Would also be nice for cranes for loading docks - we don’t need big ones, but if you go to any harbor in New England, they’ve got setups where you can lift your product off and load bait or whatever. I was back in Maine last summer, and every little harbor everywhere had better infrastructure than Oceanside. Could be a little tiny thing, with just a couple boats, and they’d have a crane. It’s not expensive, you do need a little real estate, but it doesn’t take much. But there’s no political will to do it down here. You can do that in San Diego or Santa Barbara, but nothing like that in Oceanside. It makes it more challenging. There’s no ice; to fish with ice out of Oceanside is logistically challenging, you have to go get it elsewhere and bring it yourself. I’m not that young anymore, I don’t like doing things the hard way if there’s an easier way.”

“Infrastructure is pretty terrible. Commercial fishing in Oceanside is an afterthought. It’s a recreational harbor, and there’s something in their charter that says they have to have spots for commercial fishing, and that’s about all they do.”

“Some places have more infrastructure support for commercial fishing, some have far less. They allow us to keep traps in the parking lot now. In years past, police would cite guys for leaving them for a day. Now, they’re a little more lenient, but I wish it was in writing. We have no freezers on [the] dock, no ice facilities. They do have a side dock and we can put insulated totes there. We have a loading zone for buyers to park; they don’t run them out now. Some years ago when the slime eel fishery started up... they were having a fit because of the water running to and from the trucks that were loading. They took the driver out of the truck, handcuffed him, sat him on the curb. Then they started doing water quality checks. They were giving guys a hard time. I haven’t seen it lately, maybe it’s due to a change in management, harbor master. The current one is a little better to the commercial guys. It’s like changing presidents, you know, policy. We have a guy that favors us right now. But infrastructure for Oceanside commercial fishing? Not much.”

“About 30 years ago there was a plan to have a loading dock with an ice maker. It was all in the plans, but the money disappeared.”

7. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your port’s fishing operations?*



Discussion Summary Two participants reported COVID-19 was very highly disruptive to the Oceanside commercial fishing community, while one participant rated COVID-19 impacts as ‘Neutral/Medium.’

- Both participants who rated impacts from COVID-19 as ‘Very Disruptive’ clarified that the disruptions were not all negative, and one participant hoped some of the changes (i.e., direct-to-consumer sales) would remain in effect long-term.
 - One participant said that during the early months of the COVID-19 pandemic, fishermen were affected by the closure of Chinese markets as a result of safety precautions. They stated good domestic markets developed for California spiny lobster, including restaurant and direct-to-consumer sales. They identified two San Diego-based direct-to-consumer markets that successfully navigated the pandemic.
- One participant recalled demand for halibut dropping significantly during the COVID-19 pandemic.

Participant Quotes

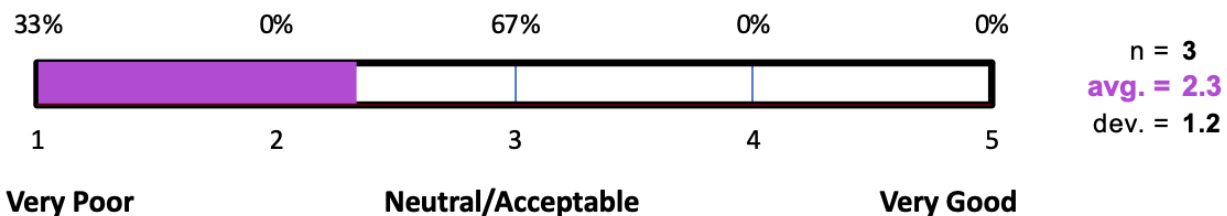
“It [COVID-19] was pretty damn disruptive. There were some significantly profound changes, but some may not have been negative in the long-term. There were lots of short-term negative effects, but sometimes disruption is good.”

“On the commercial fishing side, COVID screwed up the lobster season the year before because we lost the Chinese market because it was impossible to ship product. But very good [domestic] markets developed last year because people weren't going out, they were staying home and eating fish. There were disruptions, but not all bad disruptions. It was a time of change. A lot of us are hoping some of those things stick.”

“COVID-19 didn’t affect us as a [lobster] fishery. [...] I do know demand for halibut dropped way off, but the demand for my product this season was good. They shut down flights to China, and the majority of our product [usually] goes to China. So we had to find a local market.”

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Participants indicated recruitment and retention of Oceanside commercial fishing participants ranged from very poor to neutral/acceptable. They discussed several barriers to entry and retention in the local commercial fishing industry, including costs associated with participation in limited entry fisheries, increasing fishery regulations, and difficulty finding good crew.

- One participant related low participation in Oceanside’s limited entry fisheries to the high costs of permits; they identified hagfish as the only fishery that is not prohibitively expensive. They said that although it is not expensive to enter the open access commercial fishery, it is hard to earn a living through participation in that fishery alone.
 - One participant stated trap reductions for the lobster fishery require fishermen to purchase additional Lobster Operator Permits in order to fish more traps, which they believed might affect the number of participants in Oceanside’s lobster fishery.
- One participant thought overall participation in Oceanside fisheries is fairly stable.
- Another participant believed participation in the lobster fishery among Oceanside fishermen has decreased due to the tough, physically demanding nature of the work which has led older lobster fishermen to leave the industry. They identified trap reductions and other restrictions as another factor that has negatively affected participation in the fishery.
- Participants reported challenges finding and retaining quality crew due to their inability to pay crew members a living wage.

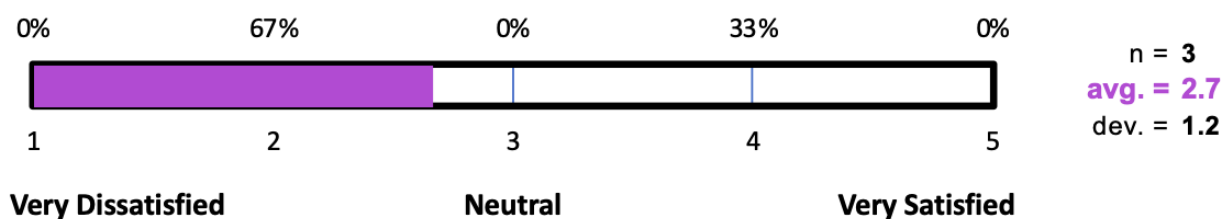
Participant Quotes

“In the last three years, Oceanside harbor lost three commercial fishermen. Prior to that, there had been seven main guys, now there are four. Management restrictions have caused this.”

“It’s a tough one, it’s expensive to get into it: lobster. You have to buy a permit, which is in the \$100,000 range. You need a boat, which costs anywhere from \$10,000 to \$100,000s, and traps. It’s expensive. There are not a whole lotta fisheries available to get into easily. One of the few is eels [hagfish], which does not take a special permit, just a commercial fishing license. Rock crab is expensive too.”

“Moving up in the industry is hard. For deckhands, the pay isn't the greatest. My deckhand works two or three days a week because he is in school. There are not a lot of people moving up in the industry that I see. There are more guys getting out of it because of income. Even guys who have passion now have health and/or back issues in their 50s, early 60s. They start slowing down, can't do as much, sell their business, and move out of state, start over somewhere else. It's not hard to enter the fishery for open access. You gotta buy a boat, and insurance for liability. It's possible, but the ability to make your living doing it is a huge challenge, unless you can come up with the money to buy a trap permit. I don't see a lot of permits transferring. My deckhand is a rare guy. He's a marine biology major. He is excited about nudibranchs and plants. The hourly wage is NOT what keeps him coming, it is his interest in marine biology.”

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Related to job satisfaction, participants explained fishermen are more dissatisfied with the management of the fisheries and the human element of their job rather than fishing itself, which they enjoy. One participant believed some local fishermen are very satisfied with their jobs, and they spend most of their time working.

- Participants identified the uncertainty of management as a source of dissatisfaction.
 - Two participants described feeling stressed about fishery regulations, which decreases their sense of job security.
 - One participant recalled the 2010 California spiny lobster fishery management plan (FMP) process which they believed gave managers the authority to close the fishery whenever they want; they do not trust managers will keep the fishery open.
 - One participant cited uncertainty with regard to whether the lobster fishery will remain open as a challenge that prevents them from financially planning for their retirement, which is stressful for them.
- One participant stated they feel stressed about people interfering with their gear, which creates feelings of dissatisfaction with their job in the fishing industry.

Participant Quotes

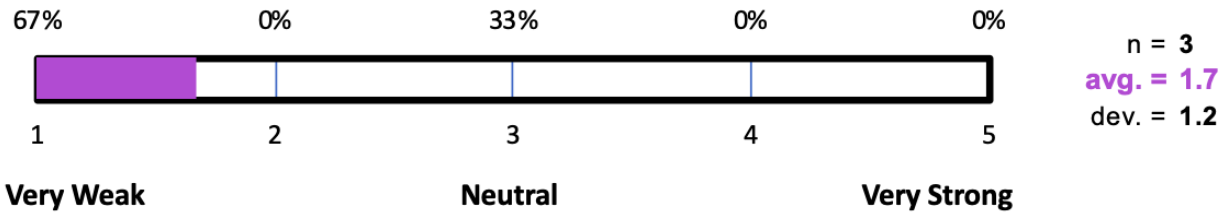
“Fishing is always very, very stressful, which has gotta count against it, because there is lots of uncertainty. It’s a pretty pleasant way to make a living, it’s fun and exciting, and you can make a decent living. It’s stressful, but then most jobs are.”

“I’m somewhat satisfied, myself, because I get to go on the ocean, see dolphins and whales, do a job most people don’t get to do, but speaking for the broader community, I think the fishermen are dissatisfied. Financially, it is more of a dissatisfactory type job, there are not lots of new people getting into it. Maybe two people in the harbor are very satisfied with their jobs, but work is their whole life. If you don’t have family, don’t mind working six or seven days a week, it’s ok. But it is tough to make a living.”

“I love what I do, I love being a fisherman. I work my own hours, at my own pace. I’m not a people person. My friends are really good friends, but I don’t have a lot of them. If I just had to deal with Mother Nature, that’s enough. It’s the human element that leaves me dissatisfied.”

“Well, sense of fulfillment and purpose, I guess I got that, but job security in this day and age, I don’t have. Say you’re in my shoes, trying to save for retirement. Do I want to buy a permit? It’s \$100,000 worth of pure profit into that. And not having the knowledge of whether the fishery is going to remain open? I still have eight good years left in me, and would like to make them productive because I feel like working, and I would like security in my future. I’m not a government employee, I have to produce my income, no one writes me a check. Prior to 2010, things were good for me. When we did the [lobster] FMP, they [California Department of Fish and Wildlife] were not willing to consider the age of fishermen [in the decision-making process]. We’re going to be gone soon enough.”

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Two participants reported social relationships between Oceanside fishermen are very weak due to poor leadership and trust within the port. One participant rated these relationships as 'Neutral' and chose not to comment further.

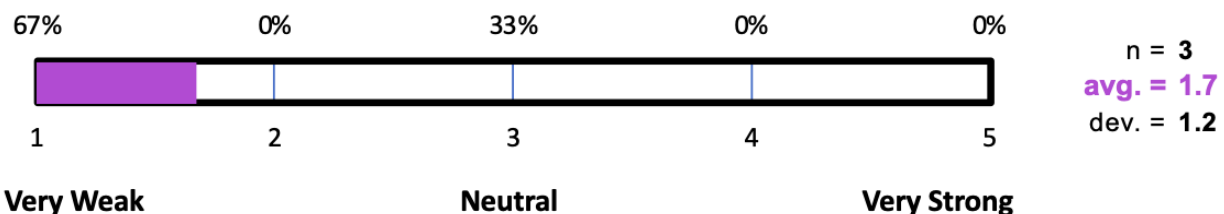
- Two participants said there is no trust, cohesion, or leadership between fishermen in Oceanside, and added some fishermen badmouth others. One participant mentioned an incident of physical altercation between fishermen at the harbor.
 - Both participants identified one individual who tries to maintain positive energy at the harbor. One participant said leadership within the port is limited to this individual, who they considered to be the official port representative.
- One participant mentioned interest among some Oceanside fishermen to create a direct-to-consumer dockside market which they believed has the potential to improve collaboration between fishermen.

Participant Quotes

"There is no trust, it's everyone for themselves. And on top of that, they're creating stories, lies about you and your deckhand to put you out of business. They talk to the fuel dock [workers], the guys at the bait dock, gas station, and tackle shop. It's everyone for themselves, no one helping anybody."

"No leadership. Well maybe there's one guy, he's not in the lobster fishery, he's in the bait fishery, he provides bait for sportfishermen. He is a port representative, he deals with Oceanside port meetings. But other than that, it's not a tight group. It's a small group down there. [...] We were trying to get a farmer's market thing going [last year]. The guy who owns the bait shop was trying to keep the positive energy going, stop the fistfights. But we need more people on board to go to city council meetings and stuff like that. It's a struggle. It's very weak as far as overall leadership."

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary With regard to the Oceanside commercial fishing community’s relationships with external groups, participants discussed factors that affect fishermen’s engagement in policy processes.

- One participant stated their engagement in past policy discussions resulted in a lack of trust in fishery policy processes in general. They recalled trying to negotiate in good faith during both the California spiny lobster FMP process and the MPA implementation process, but felt the decisions and outcomes in those processes were predetermined and believed decision-makers did not genuinely consider fishermen’s perspectives.
- One participant compared the engagement of Oceanside commercial fishermen in policy processes to the engagement of sportfishermen in the Sportfishing Association of California (SAC). They believed commercial fishermen are much less engaged and less politically organized than sportfishing industry participants. They attributed this discrepancy to financial factors; specifically, they stated lobster fishermen do not want to contribute financially to an organization like SAC, yet substantial financial support is required for these organizations to be effective.
- One participant characterized the relationship between fishermen and some California Department of Fish and Wildlife (CDFW) wardens, and between fishermen and Oceanside harbor police, as positive.

Participant Quotes

“We worked really hard [to engage in policy processes]. It started with the MPA process, nothing we said mattered. Then we did the [California spiny lobster] FMP, nothing we said mattered. So I’m done. No more meetings. Even before the meeting, they had made a decision. [Fish and Game] Commissioners don’t listen. [They are] hand selected by the governor. He’s told them what he wants.”

“There’s only a little bit of engagement. I don’t know if it’s just Oceanside though. It’s hard to compare it to SAC, [which is] very engaged. It’s lobster fishermen primarily in Oceanside. For whatever reasons, [they] tend to not be engaged overall in political processes, they’re not very organized. I don’t know if it’s strictly an Oceanside thing or what. It’s partially about leadership, partially about economics. Very few lobster fishermen are willing to contribute part of their income to pay for that kind of organization. It costs money to be effective. The will isn’t there among lobster fishermen. Not just in Oceanside, but in all of SoCal. I think that’s why SAC is effective. [Sportfishermen] contribute a significant portion of [their] gross revenue to SAC. [...] A few of us suggested doing something similar [in the lobster fishery] so we could pay staff, but most guys said it’s not even worth considering.”

“There are some great game wardens that come by. But engagement in policy processes is hard. [...] Harbor police have been good to us.”

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

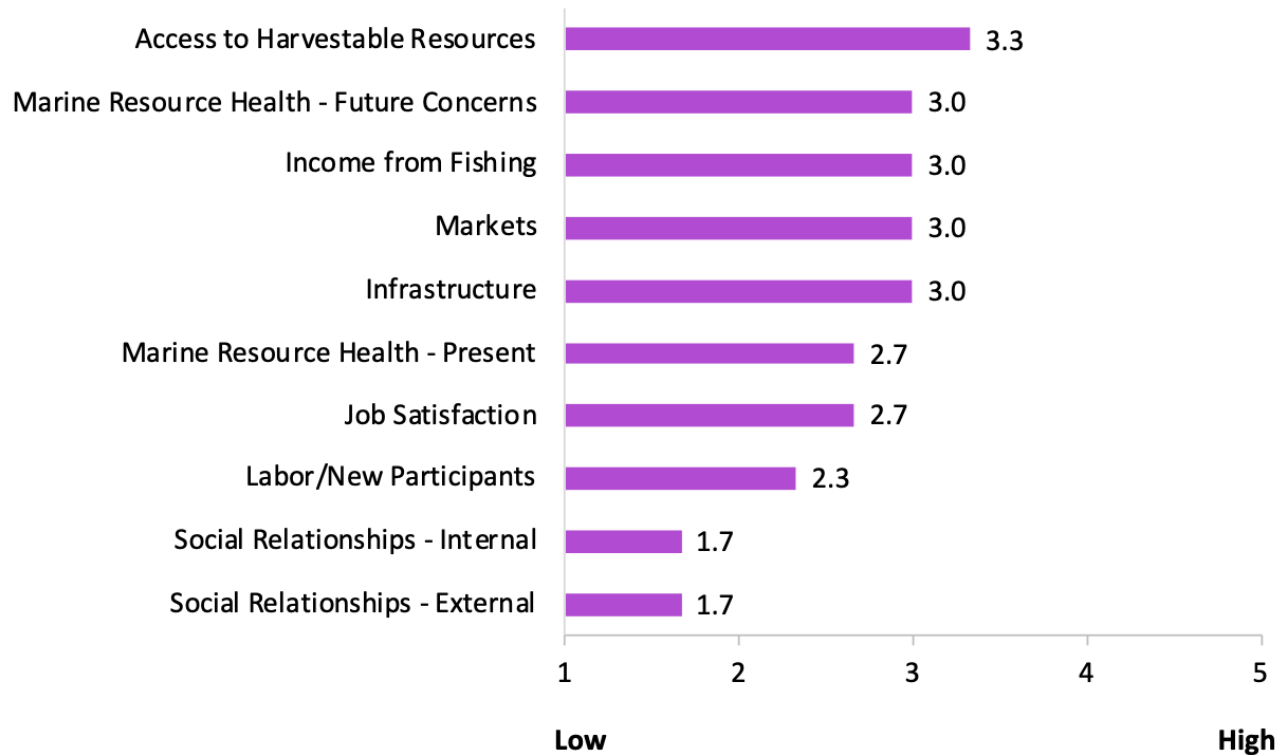
Discussion Summary One participant expressed frustration regarding commercial fishermen's relationship with CDFW. They believed better communication of management decisions by CDFW to the fishing community would help to improve this relationship. They also suggested CDFW's enforcement of rules and regulations could be more effective (i.e., CDFW wardens performing enforcement activities dockside, rather than on the water).

Participant Quotes

"It would be nice to have [a positive, healthy] relationship with CDFW, rather than [the current negative relationship] going both ways. They never do what they say they will, so I don't bother dealing with them anymore. I've had to deal with thievery [of my lobster traps], and all they have to do is make a showing of wardens. But they think I'm the problem. I'm not the problem. I'm the guy that pays for the permit. They board me [on the ocean] - why don't they check me back at the dock? It wastes time checking me on the water, measuring lobsters on the water. The warden boat has three people onboard, that's a lot of resources to check a few boats. It's much more feasible to do it at the dock, and they can do a better job. So for the most part, they could become more efficient, and have better relationships with fishermen. And I would like for them to share the reasoning behind their decisions."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

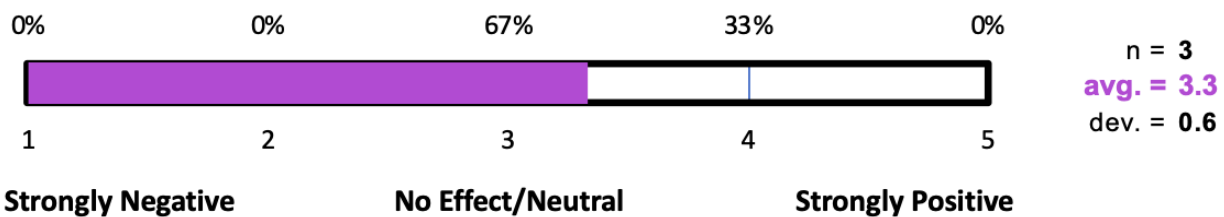
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants shared different perspectives on the effects MPAs have had on marine resource health in the Oceanside area. While some believed MPAs have not affected species abundance or habitat quality, others reported positive effects on size and abundance of several species due to MPAs, among other factors.

- Several participants stated they are not certain about the effects of MPAs on marine resource health because they are unable to fish in the MPAs and compare marine resources inside versus outside the closures.
 - One participant said they would like to know if MPAs have helped to improve marine resource health, and believed every lobster fisherman in the industry would also like to know.
 - One participant expected MPAs to improve marine resource health but has not seen evidence of this happening.
- Two participants said MPAs have not improved the health of local habitat (i.e., kelp forests) in Oceanside, and that reef habitat in the area continues to be negatively affected by ongoing beach nourishment projects.
- One participant stated lobsters, on average, are larger along and near MPA boundaries, while another participant did not believe lobster market quality has improved as a result of the MPAs.
- One participant believed there might be spillover of sea bass and calico bass from MPAs into fishable areas. They also believed black sea bass abundance has improved due to both MPAs and restrictions on black sea bass harvest.

Participant Quotes

“Who knows? I put ‘No Effect’ because I don't know how [the MPA network] has affected the resource. They [CDFW] are supposed to monitor them. I thought we would have [researchers] here fairly often, doing testing of the lobster, crab. But like I said, I’ve only ever seen them taking water quality testing. As far as resource health, I don’t have a clue. I would love for them to call me and tell me. Every lobster fisherman in the entire fishery would like to know what's going on in the MPAs. Are they working? Are they studying them? What's the story? I would like to know, and I know there are 100 plus other guys that want to know.”

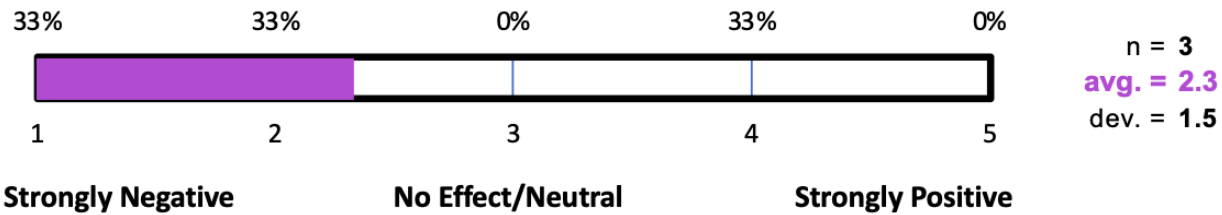
“Thinking about MPAs, I think it should help. But maybe the fish don’t move, or the lobsters don't crawl very much. So there might be bigger lobster in MPAs, but as far as catch goes, I wouldn’t see a positive effect directly. But indirectly, I don't know.”

“I only fish lobsters out of Oceanside. No doubt, you catch bigger lobster on the edge of MPAs, and the average size of lobster in the vicinity of reserves is larger. [The MPAs] haven’t made much of a difference regarding habitat... they're still doing beach replenishment.”

“The overall size [of my lobster catch] this year is a little larger. The average size was 1.24 pounds for years. Now the average size is 1.3 pounds throughout all my fishing area. If there were an MPA effect, I would think you would see it along the edges.”

“I don't see bigger fish or lobsters. I don’t believe market quality has improved. Maybe there is some spillover of seabass and maybe other reef fish? There are definitely more black sea bass, a few more calico bass. But definitely more black sea bass in reef areas. I caught one that was like 185 pounds. It took an hour to get it back down to depth, it took a lot of effort. I think MPAs and the restrictions on black sea bass might play into why we are seeing more black sea bass.”

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall What other types of effects or impacts have fishermen from your port experienced from MPA implementation?

Discussion Summary Participants reported strongly negative to positive effects of MPAs on their livelihoods, including changes in access to fishing grounds, participation in the local fishing industry, and relationships among fishermen.

- One participant reported a loss of local fishing grounds due to the MPAs which has negatively affected their ability to fulfill their markets; they estimated this has led to a reduction in their fishing income by about a third. They said MPAs have also resulted in increased risk associated with fishing because they must travel further distances to fishing grounds. They described greater impacts on the fisheries and the grounds that support those fisheries, which they believe has had cascading effects on local habitat and the commercial fishing industry overall.
- One participant estimated one or two fishermen leaving the local commercial fishing industry as a result of MPA implementation.
- One participant stated MPAs did not have as negative an impact as they were originally anticipating but highlighted the financial impact of decreased landings, lower income, and increased operating costs (i.e., fuel) due to the MPAs.
- All participants discussed increased crowding and compaction along MPA boundaries. One participant explained MPAs not only negatively affect their landings, but also relationships between fishermen due to poor resource availability and greater competition. One participant said MPAs have led fishermen to become more withdrawn and less communicative with each other.
- One participant reported not experiencing impacts, positive or negative, from the MPA network because they started fishing after MPA implementation. However, they stated local MPAs encourage them to fish more areas than they otherwise would, which they perceived as a positive effect of MPAs.
- One participant believed MPAs may have encouraged fishermen to become more engaged in policy processes affecting the fisheries, but stated fishermen generally choose not to be politically engaged. Another participant had not heard of MPA implementation increasing fishermen involvement in policy processes.

Participant Quotes

"Loss of fishing area is a major factor. It is frustrating, the fact we lost the area, and we don't know if they're working. [MPAs have] increased my costs by six miles every time I go through

there: three miles out, three back. My income was reduced by one third when [the MPAs were] put into place. In Cardiff, I can't fish my traditional grounds, because they are closed. [Regarding the increased] travel time and distance, more travel time means more risk involved. Crowding? Of course! There is more competition in open areas, and then we had the [lobster] trap reduction on top of it. I've lost a third of my area and my potential to fulfill markets. One or two guys left the industry because of MPAs."

"The MPAs put more pressure on other fisheries. If you lose revenue, if you're able, you go to other fisheries. It upset the apple cart. In theory, I get it. If you change one thing, the habitat, it changes everything. It's the same thing. If you change the fishing pressure [in one place], you increase it in other areas."

"[Effects from MPAs are] not as negative as I originally thought they would be, but certainly negative. MPAs have certainly reduced landings and increased cost from fuel because you have to travel further, and because it takes time to travel farther, which cuts into landings also. There are the same number of fishermen in Oceanside as before MPAs, but they are going further to fish. And the MPAs [have created a situation where fishing is easier for] younger guys, because you have to work harder than you used to, put in longer days, and be willing to travel. Overall, MPAs have made it a little tougher."

"Yes, MPAs have increased crowding, no doubt. But on the other hand, we now have a trap limit, so that has mitigated crowding. It's hard to tease those apart, but overall, it might be a wash. The trap limit has been positive, I think."

"Around the MPAs, we are seeing thick trap lines. It creates competition between fishermen, and harms relationships between fishermen because of scarcity, so someone is not going to be happy about it."

"I don't see a lot of change in my livelihood. I've been able to fish north and south. I haven't seen lots of change, so I'd say [MPA effects are] neutral or positive. I landed on 'Positive' because MPAs have forced me to prospect in other areas, and that's turned out well for me."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants identified several MPAs that have negatively affected commercial fishermen from Oceanside.

- **Swami's State Marine Conservation Area (SMCA):** All participants said the Swami's SMCA is the most impactful for Oceanside commercial fishermen. They reported a drop in lobster catches due to this MPA because fishermen can no longer access productive lobster fishing grounds and must travel further to reach fishable areas.
 - One participant said Swami's SMCA was also a seasonally productive area for fishing bass and deeper rockfish.

- *South La Jolla SMCA and South La Jolla State Marine Reserve (SMR)*: One participant said these MPAs lead San Diego commercial fishermen to fish farther north in fishing grounds off Oceanside, crowding Oceanside fishermen and also increasing their carbon emissions. One participant said they used to fish off South La Jolla before the MPA was established, and now their fishing trips are less efficient due to this MPA.

Participant Quotes

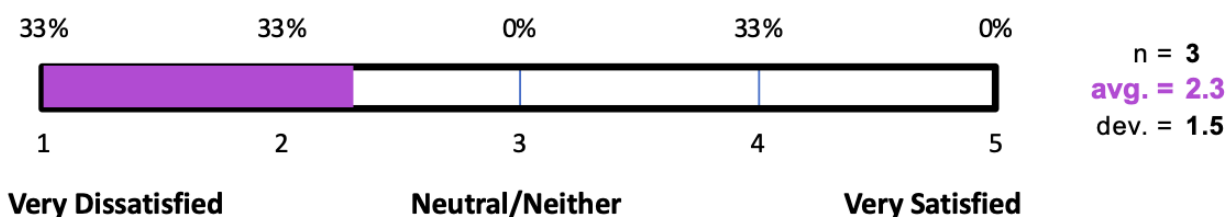
“Swami’s [SMCA affected Oceanside commercial fishermen]. We catch less lobsters [now], and we have to travel further. That used to be the bread and butter area. That’s where you’d make your expenses. Anything else you caught was how you made money. Now you don’t have that. It’s much better habitat [than other local fishing grounds]. You never went through there and got skunked.”

“The Cardiff MPA [Swami’s SMCA]. It was a good area for bass fishing in summertime and deeper rockfish during colder water months. And there’s a good kelp edge there, which was good for lobsters. It was one of the better reef areas that got closed. And La Jolla [South La Jolla SMCA and SMR] maybe a little bit. [...] On the closure lines, there are a bunch of traps. It must be worth it to fish there.”

“Definitely the one off Cardiff [Swami’s SMCA]. And the ones at La Jolla [South La Jolla SMCA and SMR] impact Oceanside guys, because the [San Diego commercial fishermen] down there lost area, so now they venture further north. [CDFW] knew it was going to happen. There ya’ go, bigger carbon footprint. To make it more efficient, I wouldn’t come home every night. I’d leave Oceanside, spend the night in Mission Bay, anchor the next night in San Diego because I had a slip there, and the next day, go out and pull [traps], maybe north or south. Then work my way back up north. But now I have to go home every night because I don’t have enough traps [due to trap limits established by the California spiny lobster FMP]. I guess I should just buy another \$100,000 permit!”

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary All participants were dissatisfied with CDFW’s management of the MPA network, including a lack of opportunities for fishermen involvement in MPA management. One participant expressed extreme dissatisfaction with MPA management. They stated that although the lowest response option is ‘Very Dissatisfied,’ they believed this rating did not accurately reflect their sentiments about MPA management, and would have provided a ‘0’ score if one was available.

Another participant stated they were satisfied with informal MPA management, specifically MPA enforcement, among fishermen.

- One participant recalled the term “adaptive management” being discussed during the MPA planning process, but stated adaptive management has not been used in practice. They believed the use of MPAs in fisheries management can be appropriate in some settings (i.e., in countries where funding is limited for more precise management actions), but believed California has more effective management tools available, some of which are already in use. They suggested fisheries management in California could be improved by incorporating real-time management in which management goals are evaluated more often than they are now. They believed California should focus more money on both fisheries management and research.
- One participant was extremely frustrated by the lack of clarity and communication of MPA management goals, lack of opportunities for fishermen involvement, and lack of action by managers overall.
- One participant described their frustration with the MPA implementation process, specifically when fishermen were asked to put pennies on the fishing grounds most important to their businesses. They believed the MPAs were intentionally placed in those productive areas, and said their trust in management was broken as a result.

Participant Quotes

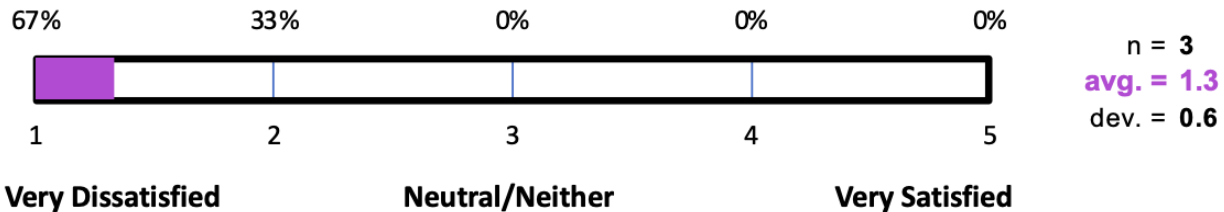
“I’m dissatisfied because for the most part, I haven’t seen a whole lot of management of the MPA network. I’ve seen some lip service, but nothing serious. There have been some grant opportunities for researchers, but as far as real management that affects fisheries resources, I haven’t seen much of it. [...] Adaptive management was promised. Well, maybe not promised, but teased I suppose; the politicians that set these things up were smart enough not to make promises. It [adaptive management] was not followed up on. [...] There are better ways to do fisheries management. At this point, California makes very little effort to manage things on a real-time basis. Management needs to be done on a shorter time scale and in real time to be done effectively. And when things change, you need to change the rules fast. And putting in MPAs is not a way to do that. [...] There’s a time and place in California for MPAs. We should have some, but trying to manage all of the nearshore resources with MPAs is silly and inefficient. It takes money and effort.”

“Management?! That’s a good one! There is no management. Management means you are carrying out a plan. You are carrying it out, you manage it, you care for it. As far as fairness, that is a hard one to say anything about. We have closures and we are living through them. Nothing has been communicated. Had they cared, we would have heard something. It’s been ten years and I haven’t heard a word about anything. Opportunities for fishermen involvement? Give me a break! There is none. Effectiveness of goals... overflow? Is that goal?”

“I won’t name any names, but let’s go back to MPA implementation. Ecotrust got in touch, laid out a map of the [California] coastline, and gave us pennies. They said ‘put those pennies on areas you want to protect the most.’ They used that as a signal where the best areas were. That info was passed on, along with info that was supposed to be confidential. [CDFW] saw those pennies. They could see the most productive areas, and that’s where they shut down. So I’m not very trusting. They had the entire coastline. I said ‘I know I’ll have to give up something, so I’ll

put my pennies on areas I need to survive,’ and they put them [those areas] in closures. It was another situation where they had their minds made up before the meetings. If I’m being honest, we shot ourselves in the foot. All the guys feel the same way that I do.”

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



Discussion Summary Participants expressed their dissatisfaction with the monitoring of the MPA network.

- One participant was aware of limited MPA monitoring activities since MPA implementation, but no participants were aware of results from MPA monitoring efforts.
- One participant said they would like MPA monitoring studies and results to be better communicated to fishermen. They would also like to speak with researchers who are conducting MPA monitoring, and know if CDFW has hired a crab and lobster expert familiar with the Oceanside area to monitor the local MPAs.

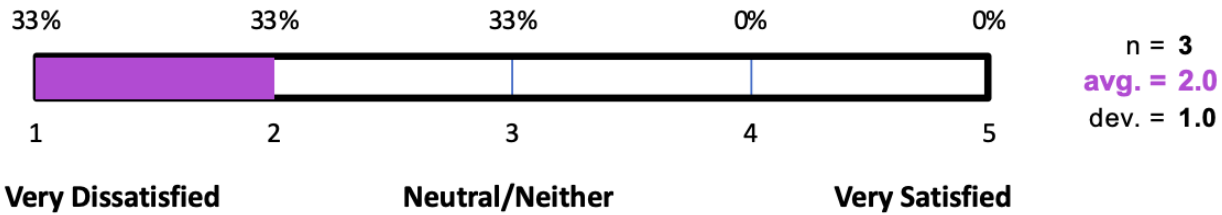
Participant Quotes

“They hired a couple guys for a couple years for a little monitoring but that was it. I don’t know what ended up happening with that data.”

“I’m really involved, I should hear about studies. I haven’t heard of any MPA studies.”

“There is no monitoring of the network. Whatever money they had, they may have started with good intentions, but the cost of everything, mainly it goes toward salaries. We don’t know if they [MPAs] are working, if they are helping us out. The only way to know is to catch lobsters inside versus outside [the MPAs]. They only do that monitoring in times when they have landings data: October through March. They don’t do it in the summer. I don’t know if they kept up with landings for that area. Did they process it? I don’t know. I don’t have a clue if the MPAs are working. Abundance, diversity, size, habitat, market quality, other, I don’t know any of this. [...] I’ve spent more time there than [the researchers] have, for my area. And there are other experts. What lobster and crab experts have they [CDFW] hired that know the area?”

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



Discussion Summary While views about MPA enforcement ranged from very dissatisfied to neutral, all participants expressed frustration with MPA enforcement.

- Two participants said they often see recreational fishermen fishing inside MPA boundaries, yet enforcement has not addressed this.
- One participant said adherence to MPA rules and regulations relies upon an inherent understanding among fishermen not to fish in the MPAs, since they do not believe official MPA enforcement is occurring. One participant believed fishermen self-enforce MPA rules and regulations better than official MPA enforcement by state agencies.
- One participant said that despite the establishment of the MPA network, they see overall less enforcement activity now than they did in the 1990s.
- One participant said they were unaware of MPA enforcement issuing citations for fishing activity inside the MPAs.
- One participant suggested fishermen's navigation systems should include MPA boundaries, which they believed was not true of all systems.

Participant Quotes

"There is no enforcement. It's pathetic, really pathetic. It's common to see recreational fishing for bottom fish in the middle of the reserves, which is not allowed. I've never seen anyone getting caught by wardens. They [wardens] don't have the resources nor the will to enforce [MPAs], it seems. I'm pretty sure there are unscrupulous fishermen that take advantage of that fact. It's not hard if you have a little imagination. There is money to be made there, especially with lobsters. But the guys don't get caught. Enforcement doesn't happen. I don't think there's any effort made. The only thing stopping guys fishing there [in the MPAs] is their own moral code. It's just like anything else, if there's no risk of getting caught, unscrupulous people are going to take advantage of that, which is frustrating if you're following the rules."

"I'm a little dissatisfied with it [MPA enforcement]. Sometimes I see sport guys fishing in MPAs. so I would like to see more enforcement. I would like to see the chart plotter to show whether it is legal or not [to fish in a given area]. Some chart plotters have it, some don't."

"There are more wardens now then there have ever been, but I see less now [on the water] than I saw in the 1990s when there were far fewer of them. I've only seen them by the closure line one time. To my knowledge, no one has been cited in an MPA."

"It seems like [MPAs are] working [...] Everyone is policing themselves, hopefully that will create better fishing conditions in the future."

19. MPA Overall Any additional comments or concerns about the MPAs and MPA management you would like to communicate?

Discussion Summary Participants reiterated their desire for better communication of MPA monitoring work, and more opportunities for fishermen involvement in fishery management overall.

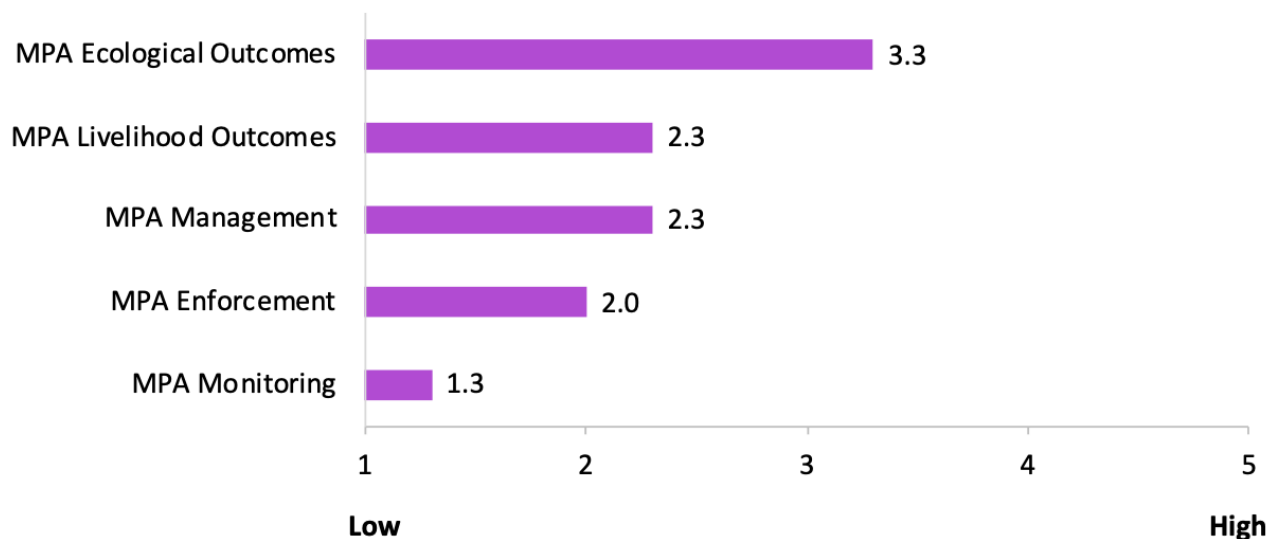
Participant Quotes

“I would like someone to communicate with me - someone in [CDFW] with knowledge - if anything has been done, or will be done, as far as testing if the MPAs are working. Have you tested size? Quality? When did you do it? At least 100 other fishermen would like to know the same thing.”

“I'd like to learn more about research and data about how MPAs have impacted the reef. And how surface fish have been impacted.”

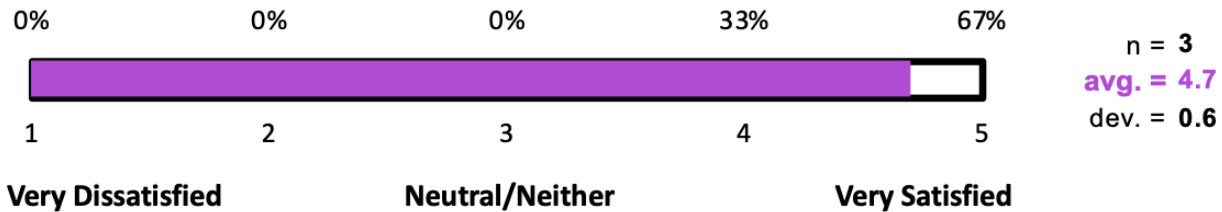
“I would like to see more outreach like this study and our phone call tonight. I would like to have more conversations. I would like to see how what we've shared tonight might change the fishing industry.”

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



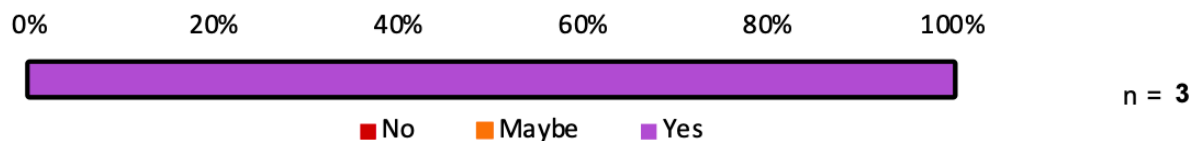
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the purple bar indicates the percent of participants who responded 'Yes' to question 20b. If participants responded 'No' or 'Maybe,' a red or orange bar would appear, respectively.)



20c. Process Open-ended Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?

Discussion Summary One participant was not willing to participate in a group conversation in the future but was open to another one-on-one conversation. Another participant appreciated the facilitator for making conversation scheduling convenient for them, but did not trust the information collected during this study would result in lasting change that would benefit the commercial fishing industry.

Participant Quotes

"[I wouldn't participate in a] group [conversation], but I would do another one-on-one phone call with you."

"You made it [scheduling] convenient. I just am curious where this info will go and how it will be used. What's the point? It's like a complaint session, and I don't know how useful it is. I have a feeling that that's what the data will show too."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Fishing Communities in Relation to the MPA Network ***Members of San Diego Area's Commercial Fishing Community***

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with fishermen throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and Commercial Passenger Fishing Vessel (CPFV) fishing communities in California, including impacts from MPAs. A key goal of this study is to convey fishermen's perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of fishermen representing a range of fishing interests were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, markets, infrastructure, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where fishermen were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Port Group: San Diego Area Ports

Date: Tuesday, March 2, 2021

Participants: Shad Catarius, Cameron Cribben, John Glawson, Brian Kiyohara, Tanner Saraspe

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

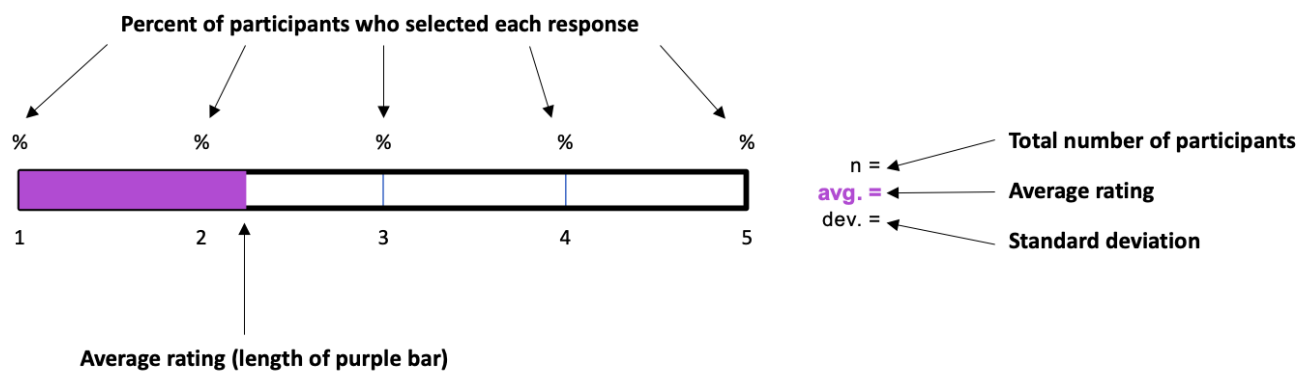
Overview

On March 2, 2021, five commercial fishermen operating out of the San Diego area participated in the seventeenth focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 17 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 17 and 24 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

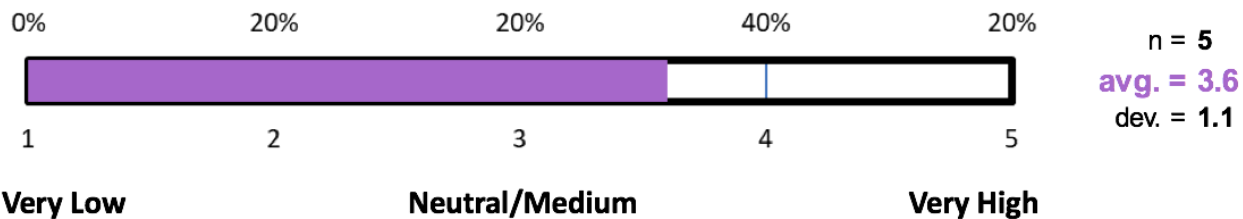
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: South Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2011–2015, South Coast](#)
- [Marine Protected Area Monitoring Program, 2019–2021](#)

Our Project Team would like to express our appreciation to the five San Diego area fishermen—Shad Catarius, Cameron Cribben, John Glawson, Brian Kiyohara, and Tanner Saraspe—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resource Health - Present Overall, how would you rate the current health and sustainability of the marine resources on which fishermen from this port rely?



Discussion Summary Participants' views on the health and sustainability of marine resources in the San Diego area ranged from low to very high. Several participants clarified that while some species are healthy, MPAs have created larger size classes of fish that are negatively affecting smaller fish due to predation. For a more detailed discussion related to MPA impacts on resource health, please see the **Discussion Summary** starting on page 17.

- One participant suggested marine resource health, especially species abundance, in the San Diego area has remained in the neutral/medium category for the past ten to 20 years.
- Several participants indicated marine resource health varies across species. One participant perceived spot prawn health to be steady, while bluefin tuna and rockfish abundances have increased in recent years. Another participant considered California spiny lobster abundance to be high.
- One participant believed fish size has declined compared to years past. They added that because fishing opportunities are so limited, catch fluctuates depending on water quality and ocean currents whereas historically, abundance was high and fishermen could catch enough fish in any condition.
- One participant highlighted the increased size of certain species (e.g., sea urchin and kelp bass) and reported increased predation of bottom-dwelling species by kelp bass; they attributed this to the change in size limit for the kelp bass fishery.
- One participant identified a loss of kelp habitat in the waters near Imperial Beach as a result of poor water conditions along the US/Mexico border.

Participant Quotes

"I think the availability of marine resources is the same as it has been the last ten to 20 years that I've seen out of San Diego. [. . .] Pretty consistent. The fish are out there to catch, it's the question of going out and catching them."

"I definitely think it varies based on fishery [. . .] It's pretty steady with us for spot prawn. We're seeing this wave of bluefin tuna in US waters, which is interesting, in the last five, six years."

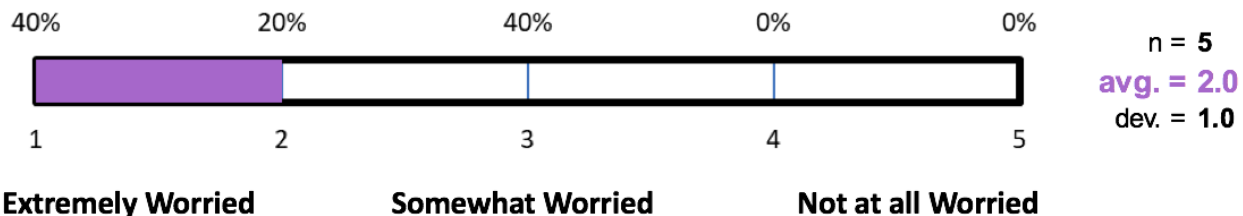
"The fish are smaller than they used to be. [. . .] But then there's also a lot more dead periods, I think, than there used to be. [. . .] You need conditions to catch fish, as where before you could just fish the big rock pile and scratch something... at least a little something. Now, it seems like

you need cleaner water or a good current to really make a catch that's financially viable. In the old days, you could just pound the kelp bed all day and you'd end up with a catch. Now, if you have bad conditions, it's the price of the fuel and the bait. It's not even worth it to do it."

"[The California Department of Fish and Wildlife (CDFW)] changed the size limit of the kelp bass, [. . .] now it's just hard to get anything off the bottom that isn't being destroyed by that population. That size increase was destructive to the balance, and it hurt a lot of people, [and] really did change things and increase predation on a lot of our trap fisheries."

"When I started thinking about Imperial Beach, and the Tijuana River Reserve, it used to be a lush, lush, lush kelp bed [. . .] There hasn't been a shred of kelp in Imperial Beach for five or six years due to the sewage, or whatever ocean conditions."

2. Marine Resource Health - Future Concerns Overall, how worried are fishermen from your port about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants cited effectiveness of management as a greater source of worry about the sustainability of marine resources and the commercial fishing industry rather than future ocean changes.

- Several participants explained the political nature of fisheries management is more of a threat to the fishing community than the long-term health and sustainability of marine resources. They believed fishermen are better able to adapt to changing ecological conditions than to frequently changing management decisions that affect the resources and their access to those resources.
- A couple participants identified several concerning issues, including management, the growth of the recreational fishing industry, and ocean pollution. However, they clarified these issues are less of a concern to those commercial fishermen who will be retiring soon and more of a concern for younger fishermen who are more affected by these circumstances.

Participant Quotes

"Management is definitely crippling, way more [than changes in ocean conditions]."

"The political environment is by far more scary than any fishing in the natural resource environment. We will adapt as we always have to fishing conditions. You can't always adapt to political conditions."

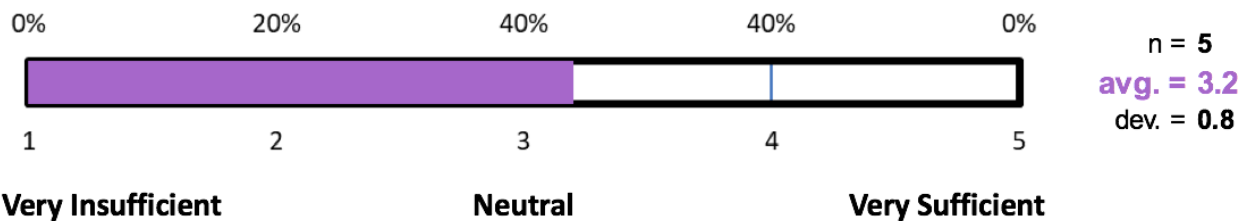
"When you've been commercial fishing for almost 30 years, it just seems like there's always something to deal with. [. . .] Management is probably the biggest thing that I'm personally worried about [. . .] Enforcement has sure changed; that's gone way south in the time that I fished. [. . .] I haven't got X amount of years left in me, but if I were a young man like [name redacted], I would definitely be extremely worried about the direction that this is going. It

seems like we're getting less backing from [CDFW] every year, and there's more hurdles to jump through, all the MPAs and all the different closures and size limits and all of that thrown our way."

"I'm on the end of my career. [. . .] There's not enough enforcement, [. . .] the recreational fleet is quadrupled at least in the last five years - and who knows how many they're taking and selling on craigslist. And then there's pollution: I don't know how many plastic bags and trash I pick up out of the ocean every day. But I'm somewhat worried. But I could be done in ten years like [name redacted], and we'll be worrying about [name redacted] because he's a young pup, and he's got a long way to go."

Well-Being, Economic

3. Access to Harvestable Resources Overall, how would you rate your port in terms of the level of access that fishermen have to marine resources to support the local fishing fleet?



Discussion Summary Participants identified several barriers to access affecting San Diego area fishermen, including trap and quota limits, permit requirements, and interactions with the sport and international fishing fleets. However, they emphasized MPAs are among the most significant restrictions that inhibit access for numerous fisheries; for a more detailed discussion related to MPA impacts on fishermen's access to marine resources, please see the **Discussion Summary** on page 19.

- One participant stated that although they own a lobster permit, trap limits and area closures (e.g., MPAs) hinder access to the species. They questioned whether future generations will have sufficient access to the resource to survive in the fishery.
- One participant identified the sportfishing fleet as a hindrance to commercial fishermen's access to lobster, explaining that the ease of obtaining a sportfishing license, the early sportfishing season opener, and high bag limits for sportfishermen limit commercial fishermen's opportunity in the fishery.
 - Another participant shared how commercial fishermen raised their concerns regarding the sportfishing fleet during the Fishery Management Plan process in 2012–2013 but were unheard.
- One participant reported the quota for several groundfish species, including vermilion rockfish and blackgill rockfish, is insufficient to offset the costs of participating in the fishery.
- One participant explained depth restrictions for rockfish have been loosened recently, and stated this is an indication that fishermen's access to the species might improve with additional loosening of depth restrictions potentially continuing in the future.
- One participant mentioned that because offshore fishing can be difficult, daily black cod catch is limited.

- One participant stated the Cowcod Conservation Areas (CCAs) affect access for fishermen out of San Diego who fish offshore; another participant further explained San Diego area fishermen tend to not fish near CCAs or Catalina Island.
- Several participants commented on the financial barrier to obtain fishing permits. They stated that unless fishermen can afford several fishing permits or acquire them through other means like from a family member, they are only able to fish commercially part-time. They emphasized the need for fishermen to obtain a diversity of fishing permits to survive in the commercial fishing industry.

Participant Quotes

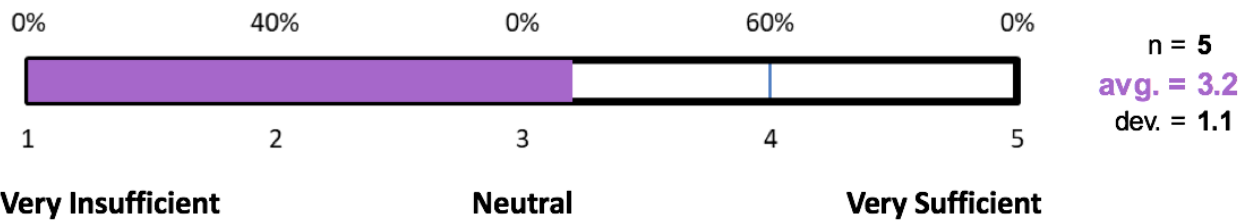
“There's so many more sport fishermen going out for lobster right now, and it's like anyone can walk into a Big 5 and buy a sport fishing license to catch lobster and go hoop netting. There were some guys that were literally going out every single night [. . .] I mean, think about it: if the limit's seven per night, if they fish every single night, you're talking 140 lobsters a month... no one can eat that much lobster. I think it's absolutely wrong that that's the limit for sport fishermen. Commercial fishermen have to spend a lot of money for that permit, and they should have the right to fish it well before any of the sport fishermen should. Not to mention they can fish inside the jetty. That's one thing, that divide between the sport fishermen and commercial fishermen. I think they should give commercial fishermen a little bit more leeway and opportunity, especially when it's their livelihood.”

“During the Lobster Advisory [Committee] meetings, [. . .] all of those issues [regarding the sportfishing industry] were discussed by the commercial sector. We fought very hard to make some changes, and there was no effort to touch the sports, to change the sports sector. [. . .] Politics ends up cutting us off at the ankles more often than the resource [health].”

“It's really not worth it to fish groundfish. [. . .] That's something I do on the side while I'm fishing sheepshead or something. If I was to specifically go out and target them, I'd have to stay local, I'd have to stay where I burned the least amount of fuel, the least amount of bait. If I catch 200 pounds, that's great. But I can't plan a trip offshore to go make \$2,000 bucks and spend \$1,200 to go catch those fish; that doesn't make sense. So, like the blackgill fishery, they put the quota so low now that guys aren't even fishing them anymore - used to go out to the 60 mile bank, take six, seven hours to get out there and six, seven hours to get back. And by the time you come in with a small quota, minus fuel, crew, insurance, bait, all this, blah, blah, blah, it's not worth the time fishing it. So, yeah, we need more access to more ocean.”

“I think if the next generation, if there was just the guy that bought a commercial permit, it'd be pretty much next to impossible to make a living at it unless he bought a lobster license or a crab license. And those... what's a lobster license, 100 grand minimum? A shrimp license, [. . .] like a million dollars [. . .] So the access to commercial fishing, I don't think it's that great. [. . .] The full-time guys, I think you can count 'em on two hands how many people do it year-round.”

4. Income from Fishing Overall, how would you rate the income that fishermen from your port earn from fishing in terms of supporting livelihoods?



Discussion Summary Participants' responses were on both ends of the scoring spectrum, with some indicating that income from fishing is insufficient while others believed it to be sufficient. Several participants stated there is a need for fishermen to have a second source of income to cover their overhead in addition to personal expenses.

- Several participants explained that both current and new entrants into the fishery tend to have supplemental income to support their fishing business (e.g., another job, investments, loans, inheritance, spouse's income).
- A couple participants highlighted seasonal closures make it difficult for fishermen to fish year-round, leading them to search for other ways to earn an income during the off-season.
- One participant indicated participation in several limited entry fisheries in addition to an open access fishery is essential to earning sufficient income to support a livelihood from fishing.
- One participant explained income from fishing is sufficient during years when the market prices for catch are high.
- One participant reported health insurance for themselves and their family is the most costly expense that requires them to search for other sources of income beyond commercial fishing. Another participant proposed a nonprofit organization be created to help fishermen cover the cost of health insurance.
- One participant indicated smaller boats tend to earn more than larger operations due to lower operating expenses.

Participant Quotes

"There's not a fisherman out there that doesn't have [another source of] income, whether it's family money, investments, another job... in order to be a commercial fisherman in the San Diego area, you have to have money. If you're just scraping by and [say] 'I want to be a fisherman and start from the bottom,' you aren't going to make it. These new kids coming out, all the new kids that fish, it's because their daddy bought them the permit: 'here's \$250, a boat, traps, everything; now my son has an occupation.' And so when it comes down to income, [. . .] everyone's got money from somewhere else, whether they've inherited it, earned it, invested."

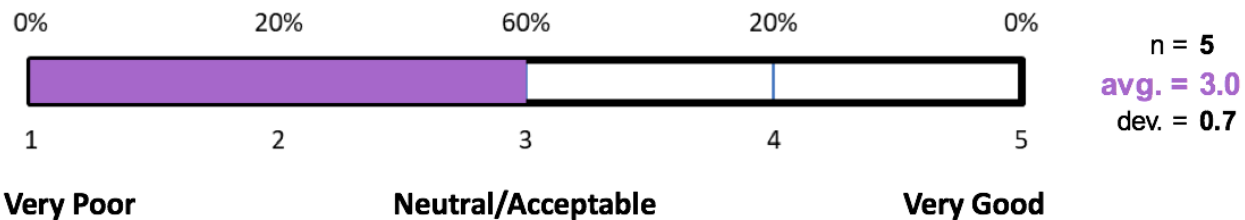
"I also feel like it goes hand-in-hand with the seasonal fishery aspect, like if you have a lobster permit, you can only fish so many months out of the year. So what are you going to do? If it was a year-round fishery, people probably could keep it going, but it's not, so that's also something to do with it."

"I make the majority of my living commercially with three restricted permits: sheepshead, crab, and lobster, and in the open access. I have yet to see an individual make it on an open access fishery [alone]."

“The price was so good this year: you put in the effort and you caught some lobsters, you had to have made some money.”

“Insurance has been the most difficult thing as a commercial fisherman to maintain, and that causes you to find other jobs to maintain insurance for your family. You have to diversify, you have to participate in different things, and the insurance in my household is what eats us up.”

5. Markets Overall, how would you rate the quality of the markets to which fishermen from your port are able to sell their catch?



Discussion Summary Participants indicated San Diego area markets are variable. They stated direct marketing options for San Diego area fishermen are more reliable, diverse, and offer better prices than wholesale markets; however, the largest wholesale buyers often dictate the price in the area.

- Participants explained the three main wholesale buyers available to San Diego area fishermen offer extremely low prices due to reliance on non-local seafood.
 - One participant stated they have relied on a buyer from outside the San Diego area for several years because the price that the local wholesale buyers offer is not enough to support a living from fishing. They highlighted the importance of the international market for seafood as a result.
 - One participant explained that in response to poor wholesale market options, some fishermen rely on local, direct-to-consumer dockside markets, which can be challenging to build and cultivate given the time commitment required. However, several participants indicated that not all dockside market options are inclusive of all San Diego area fishermen.
- One participant reported the price and overall market for lobster varies from year to year depending on tariffs, availability of buyers, and system shocks (i.e., COVID-19). They stated the development of direct marketing structures has provided San Diego area fishermen with the opportunity to sell their catch at higher prices per pound locally.
- A couple participants related the quality of an individual’s markets to the amount of effort they are willing to put into building alternative markets beyond the traditional wholesale market (i.e., direct-to-consumer sales).
- One participant highlighted San Diego area fishermen’s competition with the Mexican fishing fleet and the belief that fishermen operating out of Mexico have lower operational costs and can sell their product for a lower price, which hinders the market for rockfish in San Diego.

Participant Quotes

“I would say the markets suck around here. We've had three choices, basically. We had [wholesale market names redacted] that paid cents for seafood. I got a guy that drives all the way down from Los Angeles to buy my seafood. And I've been with him for ten, 12 years now

because around here, the price is horrible, and they only want to buy the premium on premium. And they got a truck coming up from Mexico [. . .] and you bring in the same red rock cod, they want to pay you a dollar because you're from San Diego, and you can't make a living on that. So we have three choices. It's a monopoly; [they] all get together before lobster season and fix the price, which is illegal. And they say they don't do it, but they do. It's horrible. Without the overseas market, I wouldn't work commercial fishing."

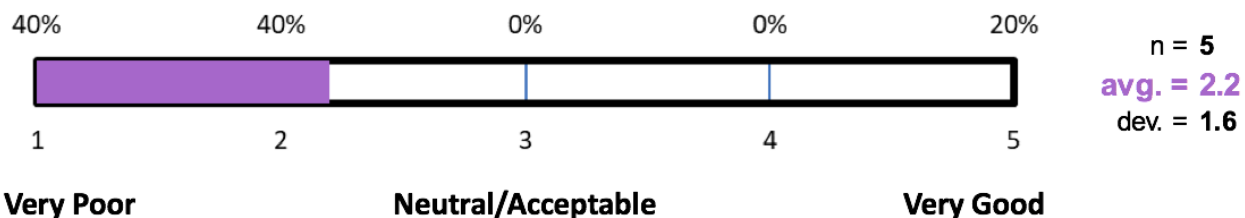
"[Name redacted's] not going to set up a booth... maybe he would, but he's exhausted at the end of the week [. . .] it's not an easy avenue for fishermen [. . .] You're waking up at four AM, you're setting up a tent. I mean, it's the whole thing that goes along with that on top of having to fish. It's like, there should be other outlets for fishermen. It shouldn't be this challenging."

"It's hard because there's like the big [wholesale markets], they just want to trash us for a price [. . .] [wholesale market name redacted], you try to sell a rockfish to them, and they get fish from Mexico that's cheaper, from Alaska that is filetted out. And then there's [dockside market name redacted]: if you're not associated with that group, there's no open invitation. Like, I can't show up and sell my fish there."

"With lobster, it's so different. I mean, last year we faced tariffs and different buyers and more politics than us fishermen want to deal with. And then this year, financially, the price is higher than we've ever seen it. And I think a lot of it is people like [name redacted] starting local markets has made a big difference. Before, everyone thought we could only sell a lobster for ten dollars [a pound.] Well now, [local markets have] created a strong price locally that for a lot of us [is] \$16, \$17 a pound. It works."

"Us in specific, dealing with that we're right next to the border, it definitely limits us. [. . .] You're competing with the Mexican rockfish that sometimes doesn't have the same quality, but it's the same species, and they can catch loads of it and they can sell it for two bucks a pound and their labor costs less, their fuel costs less, they don't have to pay for permits like we do. It's just a completely different thing, so I think us in specific talking about the San Diego area fishermen, it's a lot tougher."

6. Infrastructure Overall, how would you rate the state of infrastructure and services that support commercial fishing in your port?



Discussion Summary Participants shared a variety of perspectives with regard to the state of fishing infrastructure in the San Diego Bay area, from very poor to very good. They indicated the availability and quality of key infrastructure differs depending on which port within San Diego they are speaking to (i.e., Mission Bay, Point Loma, San Diego Bay).

- One participant reported the boat ramps in San Diego are free of charge, unlike in other ports, but that fishing infrastructure in general is lacking.
- A couple participants commented on the poor availability of infrastructure and services in Mission Bay, including the lack of docks, ice, fuel, supply shops, off-loading facilities, and gear storage. One participant believed the lack of support for fishing infrastructure in Mission Bay is indicative of the port's reluctance to accommodate commercial fishermen and a preference for yachts. They stated that while there is a commercial fishing dock in San Diego Bay, it is not feasible for commercial fishermen out of Mission Bay to use due to travel time required.
- One participant believed the infrastructure in San Diego Bay is acceptable, with several places for fishermen to tie their boat to and a fairly new launch ramp.
- One participant shared their positive experience with infrastructure in the Point Loma area, including easy access to fuel, bait, and other commercial fishing supply needs.

Participant Quotes

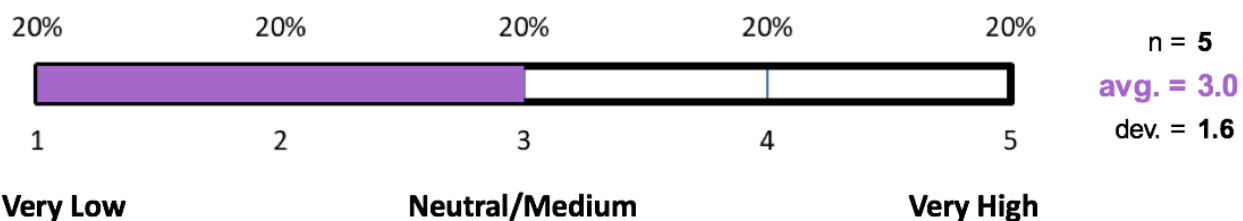
"From a trailer boat perspective, we're the only harbor [where] the boat ramps are free to access. For me, any other place other than San Diego, I would pay every day to launch my boat. As far as every other aspect, we are in dire need of a lot of support."

"It's horrible. All they want to do is put yachts. We're out of Mission Bay. There was one little seafood restaurant that had a commercial dock, and they would only choose certain people to tie up there. Luckily enough, [name redacted] has a little commercial spot over at San Diego Bay, and he let four of us tie up at his yacht marina over there. I know all of us have gear here at our houses. My wife cannot go in the backyard without stumbling on a lobster trap. There's no ice machines. There's no fuel. There's only a couple of outfitters for marine supplies. It's ridiculous. It's a joke. No off-loading facilities, no off-loading piers. [. . .] The commercial dock in San Diego is nice, but it's an hour inside the Bay. It takes you an hour to drive out of the Bay, an hour to come into the Bay and fish La Jolla. It would take you two and a half hours to get up there on my boat... I mean, five hours a day of driving just to fish off the kelp bed? They do not want us in Mission Bay for one thing, I'll tell you that."

"We just got told that we have to get our dock boxes off the dock. We can't keep our traps down there. Yeah, essentially it's an absolute nightmare, Mission Bay."

"The financial support and stuff like that isn't there [for San Diego ports more broadly]. But for lobster [in] Point Loma, my boat's tied up down the street. The fuel dock's a two-minute skiff drive. I get bait down the street, and the buyer comes to me. The San Diego Marine Exchange is a two-minute walk from my fuel dock. It works well [for me]."

7. COVID-19 Impacts How disruptive do you think COVID-19 has been to your port's fishing operations?



Discussion Summary Participants shared how fishermen in the San Diego area adapted to COVID-19 impacts, especially with regard to markets. They indicated that while COVID-19 was challenging for the fishermen, it was also a catalyst for the development of local, direct sales.

- Participants identified several ways in which San Diego area fishermen responded to restaurant closures and lack of buyers during the COVID-19 pandemic which have helped them diversify their market options.
 - One participant explained how the initial loss of retail and wholesale markets was detrimental, but that it encouraged them to develop e-commerce and direct-to-consumer sales which have worked well.
 - Another participant reported marketing their catch on social media in response to COVID-19.
 - Several participants believed the increase in direct sales amid COVID-19 has benefited both the fishermen and the public. They shared how consumers have been receptive to purchasing seafood directly from the fishermen. They suggested fishermen are likely to continue these marketing strategies long-term.
- One participant recalled difficulty accessing the boat ramps in Mission Bay and San Diego Bay during the early months of the pandemic, which prevented them from fishing during that time.

Participant Quotes

“The reason we pivoted to e-commerce and more direct-to-consumer sales [was] because restaurants shut down due to COVID. But I mean, yeah, sure, I dreamt of doing like an online sale thing prior to that, but I feel like I got kicked in the butt a little bit and didn't have much of a choice because we had no other outlet for our catch. Like the wholesalers weren't coming down from LA. [Wholesale market name redacted] wasn't buying. The dockside market was still operating. But I mean, that was definitely a response to COVID in specific. And since then, I mean, it's been up and down. There's the farm-to-table thing going on right now. And I feel like with seafood, we're also the sea-to-table movement right here. We're right on the cusp of that revolution or movement. So I hope things get better for fishermen and there's more outlets and the markets strengthen a bit here. I think the consumers definitely want it. It's just logistics of getting it to them.”

“I have an Instagram page, and I don't like people or social media. Now I'm trying to sell direct-to-consumer. So we adapted. We're fishermen; you have to, or you go out of business.”

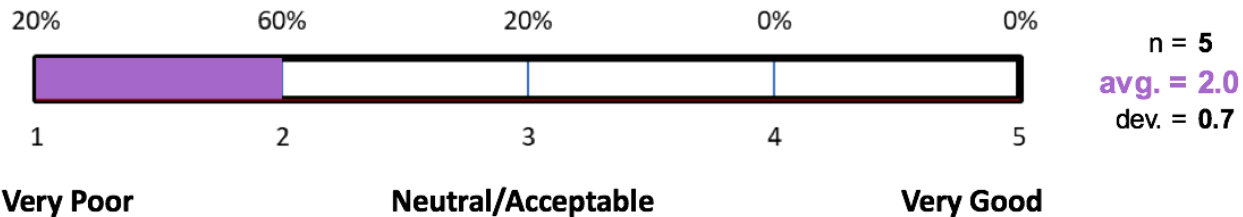
“Absolutely, [I think some of the changes in response to COVID-19 will be long-lasting]. And they're busy; there's guys that came in with 30 tons of tuna at COVID and [wholesale market name redacted] wouldn't buy 'em because there's no restaurants. Now, these same boats are coming in and they're selling all 30 tons right off the boat, never even involving a middleman. [. . .] It's the new way.”

“As a trailer boat commercial fisherman, during COVID, in the beginning, I had to threaten these lawsuits to get access to the boat ramps in Mission Bay. The city was willing to listen and then they gave us access, they gave commercial fishermen access. San Diego Bay didn't until they were faced with having to go before the news to discuss it, and then they finally opened their

boat ramps. There was two months where I wasn't able to fish because the boat ramps were closed."

Well-Being, Social/Political

8. Labor/New Participants Overall, how would you rate your port in terms of being able to recruit new entrants to the industry and being able to retain current participants?



Discussion Summary Participants reported recruitment and retention in the commercial fishing industry ranges between very poor and neutral/acceptable. They discussed the dynamics between new and existing commercial fishermen, the need for prospective fishermen to be able to front a large amount of money to enter the industry, and the challenge of retaining crew members.

- A couple participants indicated San Diego area fishermen are wary of new entrants, including captains and crew, to the commercial fishing industry. They believed increased participation in the commercial fishing industry would increase competition and decrease fishermen's overall access to marine resources, which is already limited by factors like MPAs.
- One participant explained how fishermen are reluctant to hire inexperienced crew members who they do not know, but expressed support for bringing new entrants into the industry in the long-term. They stated that oftentimes, experienced fishermen will look to family members to hire as crew, making it difficult for those who are not connected to the commercial fishing industry to gain the experience needed to begin their own business.
- Several participants shared the perspective that entrance into the fishing industry is relatively easy if an individual can afford the high costs of entry to purchase a commercial fishing license, permits, a boat, and gear, which is often achieved by support from a family member. They stated an individual's longevity in the fishery is a reflection of their drive and determination rather than their ability to cover upfront costs to entry.
- One participant mentioned it is difficult to retain crew members because fishermen cannot offer them steady work during the off-season.

Participant Quotes

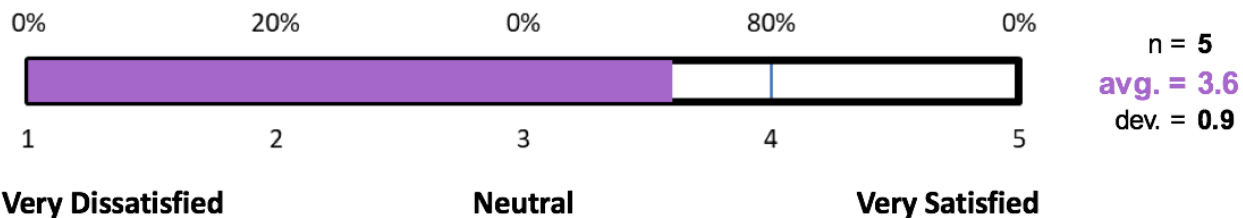
"I'd say it's a privilege for you to be [a commercial fisherman]. There's all those programs to bring in new fishermen, which I think are great. But it's like, in the grand scheme of things, sure, I'm in support of the next generation fishermen jumping on board, but it's like, is [name redacted] going to have that person on his boat as a crew member? Absolutely not. [. . .] And I think that's why it's really challenging [to enter the fishing industry]. I asked [name redacted] this question; I said 'what would your response to this question be?' And he said 'I don't want to see anyone new in the industry. There shouldn't be; it is a privilege. They should stop bringing in commercial fishermen, especially in relation to the MPAs. Like, if you're going to shrink the area where we can fish, why would you bring in more fishermen? And the thing is

now, it's so easy to go get a commercial fishing license and register your boat commercial now and all of a sudden, you're a commercial fisherman.”

“Nobody likes to see anybody new come to fish where we fish, but the only reason why I [put ‘Poor’ and] didn't put ‘Very Poor’ is because of the longevity of it. You look at that old dude, [name redacted], look at [name redacted], you look at me. We've been doing this a long time. [. . .] We've been here for a while, and a lot of the fishermen have been doing this... I don't know how long I've been pulling lobster traps, close to 30 years, and there's a lot of the guys that are still doing it. [. . .] Yeah, [it's easy for new guys to come into the fishery, if their] dad's rich, drops 250 grand... you're a lobster fisherman.”

“I think it's hard [for] crew members. The seasonality of the job is brutal. [During] lobster [season], you're rich. The next three months now, keeping a crew member, he's going to make nothing. So you work 12 to 15 hours a day for two months and then [it's] ‘I need you to take three months off and not make any money and then come back and start lifting heavy stuff.’ It's hard to retain crew. As far as the owner/operator, it weeds out the guys that don't want to work. There's been, I don't know, countless numbers of people that their dad bought them a boat and permits and traps and three years later, their boats and traps and permits [are] for sale. [Of] the guys that make it, 90 percent of them don't.”

9. Job Satisfaction Overall, how satisfied do you think fishermen from the port are with their jobs in the fishing industry?



Discussion Summary Participants’ views with regard to job satisfaction spanned from dissatisfied to satisfied. A couple participants elaborated on the sense of fulfillment fishing brings them.

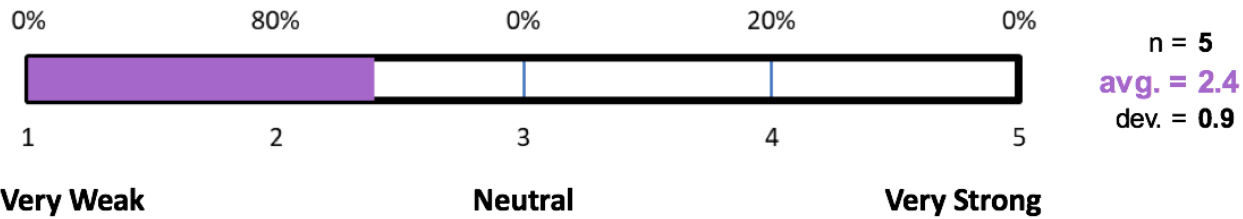
- One participant indicated their job as a commercial fisherman is both a source of pleasure and income.
- Another participant stated commercial fishing is a great job for those who enjoy fishing, but it can be challenging to make a stable living unlike more traditional professions that require more formal education.

Participant Quotes

“I get to do what I love to do and make money doing it.”

“If you want to get rich and have a nice, easy, simple life, there's college and law schools and master degrees to make that happen. If you're happy with fishing... it's good and it's bad, but if you love to fish, then it's excellent. If you think you're going to buy a permit and get rich and have life easy, it's not.”

10. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) within your port?



Discussion Summary Participants reported internal social relationships within the San Diego area commercial fishing community are strong in some aspects but weak in others.

- A couple participants stated that although they have good, long-standing friendships with many fishermen in the San Diego area, there are others they are distrustful of because they have experienced theft and had other kinds of poor interactions with certain individuals. As a result, they perceived social relationships among fishermen as weak.
- One participant indicated there is better communication and unity among fishermen across California ports than there is within San Diego area ports.
- One participant shared the belief that while the San Diego Fishermen's Working Group (SDFWG) is the most prominent organization that represents San Diego area commercial fishermen, it is also not inclusive of all fishermen.
- One participant described the poor communication and collaboration among members of the local lobster fleet, particularly between new entrants and existing participants.

Participant Quotes

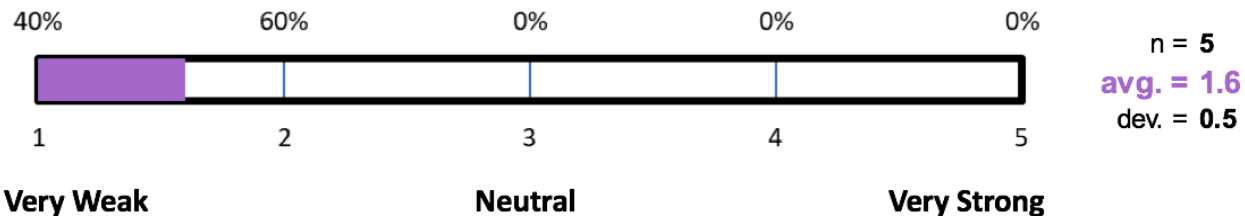
"[Name redacted] married me and my wife. I've known [name redacted] for a long time. [Name redacted's] dad's been super cool to me as a younger guy in the fishery. There's a lot of older guys that are very cool. My neighbor two houses down fishes lobster in La Jolla, and we're good friends. But like [name redacted] says, in Point Loma, there's a thief. You drive up to someone 'hey, how's it going?' 'Oh, It's good. Yeah. Hey, be careful back there. Six of my traps were opened up.' It's like, oh, OK. Sure enough, you start pulling in, and there's your traps opened up. And it's bad. There's guys who drive past and there's no eye contact, there's no nothing. And there's guys who come running over and give you a trap that's cut off. [. . .] There is a lot of good, and throughout the coast - I have friends that fish in Santa Barbara - there's communication about price and buyers and working together, and in our own backyard, we have our own issues. [. . .] As far as the outreach, when I get in from fishing every day, I have friends that fish in Dana Point. I have friends that fish offshore. I have friends that fish out of Ventura. And there's group texts: 'hey, this is what this buyer is paying.' And the whole coast is working as one."

"Out of San Diego, the biggest voice of fishermen is the San Diego [Fishermen's] Working Group [. . .] I've never been asked if I wanted to join the San Diego [Fishermen's] Working Group, but if the port or anyone outreaches about commercial fishing, it goes straight to this group, which only represents a few."

"Lobster, it's not very welcoming to newcomers. I worked for [name redacted] for a few years before getting a permit and my first opening day, it wasn't like 'oh, we're glad to have you here.'"

You see your buoy floating down the line and it's not welcoming... it's not 'hey, let me show you [this]' or 'hey, watch out for this break.' It's 'you watch your \$100 buoy go floating down the kelp bed.'"

11. Social Relationships - External Overall, how would you rate the strength of the port's relationship with external groups who could help support community needs?



Discussion Summary Participants discussed the weak relationship between fishermen and external groups and low fishermen participation and engagement in policy processes.

- Several participants indicated fishermen are cautious of engaging in projects like this one and with external groups like nongovernmental organizations (NGOs) because they believe those organizations tend to not work in the commercial fishing industry's best interest and that participation often backfires on participants such that information shared in discussions is used against them.
- One participant explained external groups (e.g., NGOs, decision-makers, academics) often communicate with SDFWG as a proxy for San Diego area fishermen, which has been an issue because the organization is not inclusive of all San Diego area fishermen.
- One participant perceived there is a reluctance for NGOs to work with San Diego area fishermen even when those same fishermen are serving on boards for local NGOs. They explained that in some cases, money has been diverted away from organizations that engage with San Diego area fishermen.
- One participant attributed poor engagement in policy processes by San Diego area commercial fishermen to the lack of communication and leadership among local fishermen.

Participant Quotes

"Before this [focus group] started, I was talking to a couple of lobster fishermen on speakerphone, and I asked them a few questions, and it's like 'no comment. Anyone we talk to, we just get shut down,' which I don't think is the right way, but that's the feel of a lot of these guys: anyone they talk to, it's just used against them."

"I feel like we're all trying to protect ourselves, too, because we don't want to see them shut more things down. We're always afraid to communicate with NGOs, and there's a huge gap that needs to be bridged by someone. Yeah, there will always be that gap between the NGOs, policymakers, academics, and the fishermen themselves. [. . .] The San Diego Fisherman's Working Group, that's an entity of its own, and they [external groups] only communicate with fishermen through the [San Diego] Fisherman's Working Group. It's like, there's other ways of communicating with fishermen, but that seems to be the only avenue people know of or go out of their way to ask."

“As soon as [the San Diego Oceans Foundation] started putting proposals together, putting things out, money was going away from the organization because a commercial fisherman was the president of it, and we weren't supporting some of that money's ideologies that they were trying to enforce. So the more fishermen get involved in something, and when it comes to questions, a lot of times there's a lot of pull back.”

“It's weak, it sucks, and we have no one to blame but ourselves because we don't communicate with each other as fishermen. [. . .] It's tough to be a leader when there's no group. [During] the Lobster [Advisory Committee meetings], out of 230 something permits back then, 15 people used to show up at the meeting. So it's tough to get anything done. There's no leaders, and it's our own fault.”

Well-Being, Overall/Additional Comments

12. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's fishing communities?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

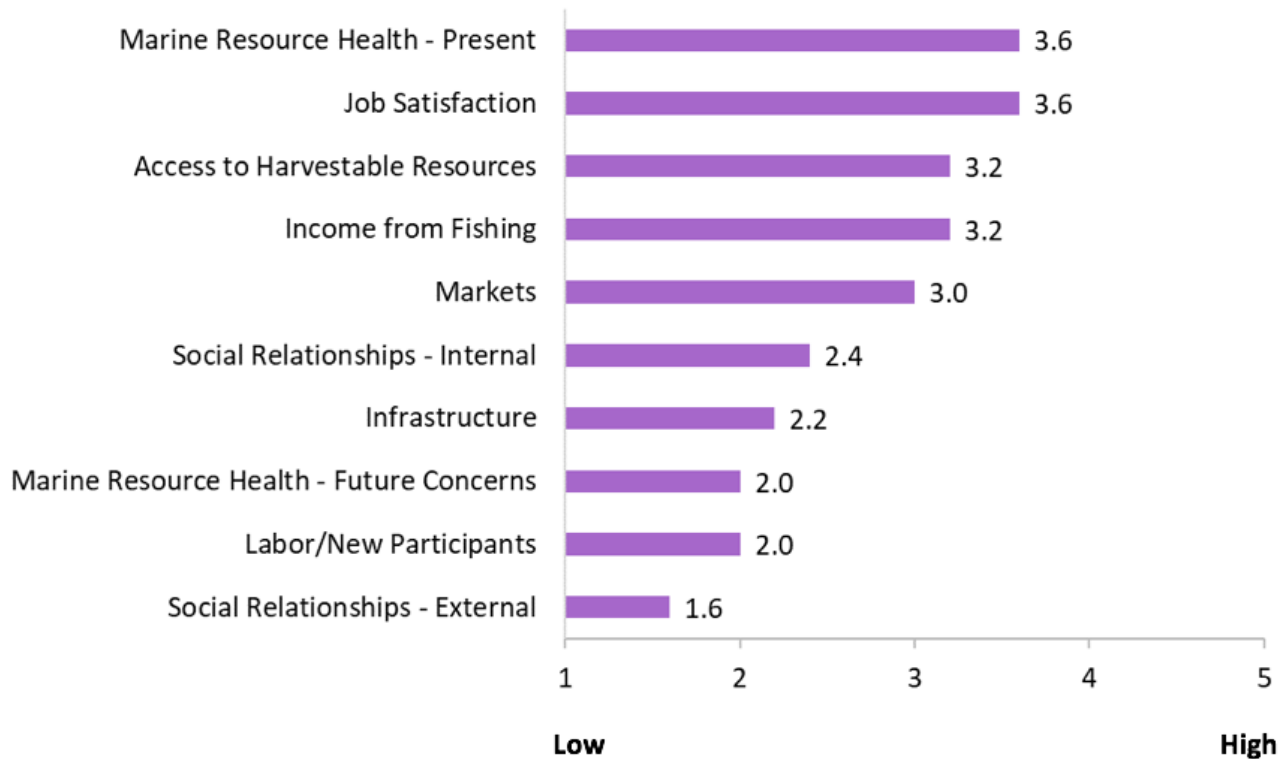
Discussion Summary One participant recounted a whale entanglement situation that they believe was mishandled. They would like to see gear that is removed from an entangled whale be returned to its owner. They were also concerned that the initial, incorrect reporting on the source of the entanglement was never publicly corrected once the true cause of the entanglement was determined.

Participant Quotes

“I actually have something that was really disturbing: last year, we had a whale entanglement issue [. . .] I was able to help SeaWorld pull up what they said was a lobster trap... it ended up being a string of Southern rock crab gear, but it wasn't the rock crab gear that was concerning. It was the fact that that whale had entangled the Dungeness crab trap from the sport sector up North, dragged it around, and snagged the Southern rock crab gear. [. . .] The fisherman whose gear that belonged to - the Southern rock crab - was never contacted, and that gear was never returned, nor was anything ever discussed about it. And that was disheartening because that fisherman lost his gear, and it was never further researched as a sport issue [instead of] a commercial issue. All we're hearing is whale entanglement, whale entanglement... this entanglement had nothing to do with any of our gear in Southern California, and it had everything to do with a piece of sport gear, that is commercial in style, that was [dragged] into our area. And nothing was ever addressed about that [. . .] I don't know how much a five trap string of rock crab gear costs, but it wasn't an old set of gear. So not only [did that fisherman] lose that string of gear that was never returned to him, nor was he contacted, but he also lost what he could have caught with that. So you can let somebody know they dropped the ball.”

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-6, 8-11

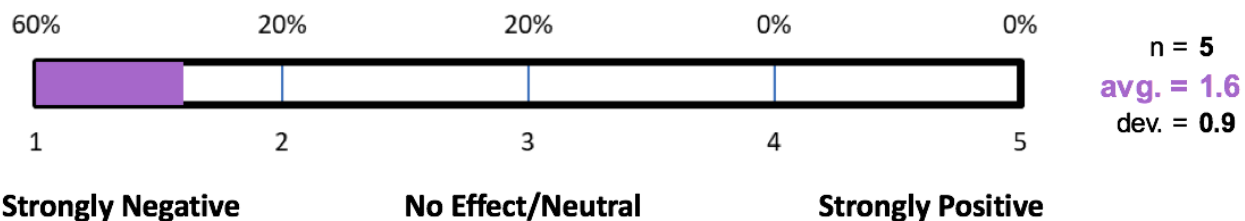
(Note: The following figure does not include the average rating for question 7. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

13. MPA Ecological Outcomes Overall, how would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Some participants reported negative ecological outcomes as a result of the MPA network, while others highlighted how the MPAs have had no effect on marine resources in the San Diego area.

- One participant believed the MPAs harbor larger fish which has led to increased predation. They stated the closures have also led to loss of kelp habitat as a result of urchin barrens due to restrictions on sea urchin harvesting.

- Positive MPA outcomes were mentioned, including larger fish (e.g., school fish, lobster) and rebound of some rockfish; however, several participants indicated there has been no population spillover outside the MPAs. Additionally, they stated larger species inside the MPAs are foraging on target fisheries such that fishermen are not seeing the increase in catch that was anticipated from the MPAs. One participant shared the perspective that other fisheries management tools, including fishing quotas, are more effective in improving marine resource health than area closures.
- One participant stated MPAs have not had any effect on the broader health of the ocean.

Participant Quotes

"With the MPAs though, it kind of started separating size class in a lot of ways [. . .] larger fish school together, smaller fish school together. All large fish in the MPAs. Same thing with lobsters a lot of times. So right now, we're just waiting for time to maybe equalize [the populations] to some degree. I know in the sea urchin populations, it's kinda the opposite. MPAs become dead zones. The feed lines and everything else, they're just dying because you're getting bigger urchins. Without culling the urchins, those areas become stagnant. They don't move around the same way everything else does, in that respect."

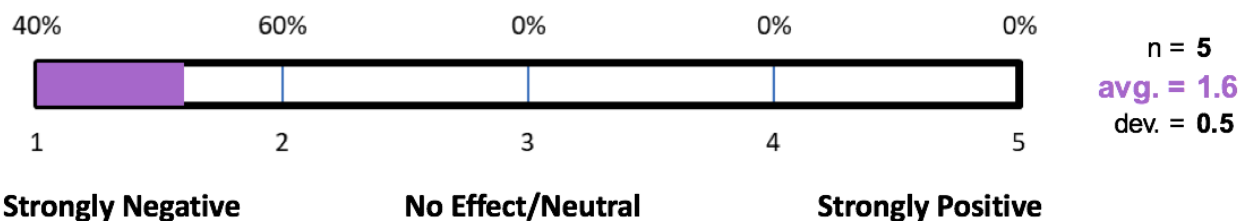
"They did say there's a rebound with the rockfish fishery after all the closures."

"I don't know how it [the MPA network] necessarily affected all the other fisheries. From lobster, it's destroyed us. It's done exactly the opposite of what they said it would do. The predation on all MPA lines falls in line with all the studies that were done: the predators get larger and therefore they sit on that line."

"The overflow was not something that was promised, but it seemed like there was some research to back that there would be overflow with these MPAs. And we're not seeing that at all."

"The MPAs have no effect on the ocean. I don't know what they hoped. I mean, there's some big lobsters in there now, but I don't think it's bringing the ocean back to where it was. Limits and trip quotas and that stuff would do a lot more than closing the ocean."

14a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for fishermen from your port to earn a living/gain income from fishing?



Discussion Summary Please see the **Discussion Summary** following question 14b. *MPA Effects - Overall* on page 19 which summarizes the conversations related to questions 14a and 14b.

14b. MPA Effects - Overall *What other types of effects or impacts have fishermen from your port experienced from MPA implementation?*

Discussion Summary According to participants, MPAs have generally had negative impacts on San Diego area fishermen's livelihoods.

- A couple participants commented on the 30x30 initiative, and stated any more areas restricted to fishing would be detrimental to the local fishing fleet.
- Due to displacement of fishing effort from historically important fishing grounds, several participants explained there is a high degree of crowding and competition near MPA boundaries.
 - They reported an increase in gear interactions and gear loss due to the concentration of gear in smaller areas since MPA implementation, which has resulted in higher operating costs to fish along MPA boundaries where fishermen are hoping to catch larger lobster.
 - One participant stated the loss of fishing grounds as a result of MPAs is exacerbated by increases in new entrants to San Diego's commercial fishing industry.
 - One participant believed that although the lobster fishery's trap limit helped reduce the amount of gear being fished, fishermen still do not have sufficient area to set their gear and are forced to travel further distances offshore due to the MPAs.
- A couple participants shared how prior to the MPAs, San Diego area fishermen would rotate where they would fish along the coast, but they are no longer able to due to MPAs that restrict access to productive fishing grounds throughout the region.
 - A couple participants mentioned that because of the closures, they have sought new fishing areas to target like in deeper waters.

Participant Quotes

"I lose a lot of gear on our MPA. Whether it's another fisherman runs it over because there's a buoy every two feet, surfers that surf the Point... I lose a lot of gear, but to be competitive, you have to fish it to beat the trap that's six inches away from yours on the bottom. It takes twice the bait, triple the bait. It's very costly to fish the [MPA boundaries]."

"With the MPAs, there's more fishermen buying commercial fishing permits, there's more boats out there fishing, and they just keep closing down the areas that the fishermen can fish."

"Ever since the MPAs came on, we're all pushed into these boxes. I think the trap limit, like in lobster fishing, is a good thing. Before, it was a free-for-all and people would have gear out there and we'd all be pushed into these boxes and people would fish 500, 600, 700 traps and they wouldn't service them. It was hard to even move a trap because there was five traps around you. So, with these MPAs now, we're all fishing in these boxes. So the trap limit's a good thing, but we don't have enough room for the fisheries, really, especially locally. Now, I've had to go offshore, go further, go deeper, go farther. So I don't think we have enough room."

"I'm 'Negative' and not 'Strongly Negative.' I strongly hate the MPA, but I'm 'Negative' because it has forced me to search out new ground and kind of change tactics, try other places and do other things - the only positive that I could say that's come out of this for myself."

MPAs, Discussion of Specific MPAs

15. MPA Effects - MPA Specific Which MPAs have had the most impact (positive or negative) on fishermen from your port and why?

Discussion Summary Participants identified several MPAs that have negatively affected commercial fishermen's access to marine resources. They clarified these MPAs are the most impactful because they were valuable fishing grounds prior to MPA implementation and local fishermen tend not to fish beyond the San Diego area. They furthered that fishermen across California also experience the greatest adverse livelihood impacts from MPAs near their respective ports. Another participant explained commercial fishermen lost significantly more fishing grounds as a result of the MPAs than sport fishermen.

- *Tijuana River Mouth State Marine Conservation Area (SMCA)*: One participant reported a decrease in their overall lobster landings due to the inability to fish this MPA, and stated they have not seen any spillover beyond the MPA boundary. They expressed confusion about the rationale for designating this MPA, given that it sustained little fishing activity prior to MPA implementation and continues to experience poor water quality and pollution regardless of fishing restrictions.
- *Point Cabrillo State Marine Reserve (SMR)*: One participant mentioned compaction of fishing pressure along this MPA boundary due to fishermen attempting to capitalize on potential lobster spillover.
- *South La Jolla SMCA, South La Jolla SMR, and Swami's SMCA*: One participant reported a loss of fishing grounds as a result of the South La Jolla SMCA and SMR, which has had cascading effects with regard to crowding and competition outside the MPAs.
 - Another participant explained these MPAs force fishermen into smaller, less productive areas outside the closures. They estimated the majority of fishing grounds in La Jolla and northern San Diego County were lost to these MPAs such that it is not viable to fish in northern San Diego County.

Participant Quotes

"The Tijuana [River Mouth SMCA] pretty much ruined me [and one other fisherman that I know]. I used to catch a lot of seafood, a lot of lobsters. And our closure in Point Loma [Cabrillo SMR], guys have traps lined up on it every five feet, and you can still catch lobsters there, but it's a joke. Down there, in Tijuana, I have tried all sides of the MPA everywhere, and they don't crawl out of there; for some reason, that cobblestone is different. So I pretty much lost 75 percent, half the area that I fish. It sucks, I never even see anything down there, anybody/any traffic. All I see is diapers and sewage and trash coming out of the Tijuana River. I don't know what they are protecting. [. . .] I don't know why it is, but there's just no spillover there, not like the other reserve in Point Loma."

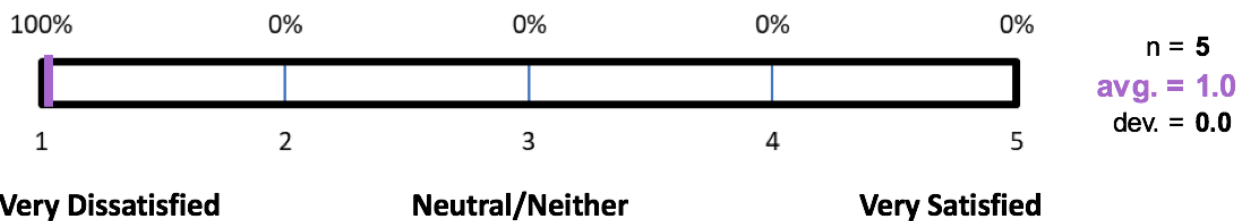
"The [South] La Jolla [SMCA and SMR] is a joke. It just took away fishing area. They said there would be spillover and big fish coming out of there and it's going to be good for everything... all it is is just [a line for] everyone to put their lobster traps on because there's no room to fish. [. . .] The only thing it did was take away fishing area, as far as I'm concerned."

"We have the Swami's [SMCA] and the [South] La Jolla [SMCA and SMR]. We were spread out before, and now in front of our harbor, it's all mud basically. So they took away half of La Jolla and pretty much all of North County. I mean, there's a little swath of North County, but it only is enough for about 40 traps. So it's not viable to go up north. So [before] we were all spread, and now we're all into this little tiny box. It's a joke. Sheepshead and lobster and crab, three fisheries that [the MPAs] really hurt us."

"It's interesting when you look at the MPA map: I see a lot of areas sport[fishing] can still continue, but there's nothing that commercial can continue."

MPAs, Management

16. MPA Management Overall, how satisfied do you think fishermen from your port are with the management of the MPA network?



Discussion Summary Participants expressed their extreme dissatisfaction with MPA management, citing poor communication of information and decisions regarding the MPA network as the reasons for the dissatisfaction.

- One participant stated fishermen believe the MPAs are areas that restrict fishing indefinitely and will likely be expanded in the future.
- A couple participants expressed interest in learning more about MPA management, including the timeline for review and evaluation of the MPA network against Marine Life Protection Act goals.
- One participant believed adaptive management, including the prospect of loosening MPA restrictions, is hindered by lack of funding.
- One participant asked managers to consider allowing limited entry commercial fisheries to access the MPAs in an effort to mitigate the negative impacts of MPAs on fishermen's livelihoods.

Participant Quotes

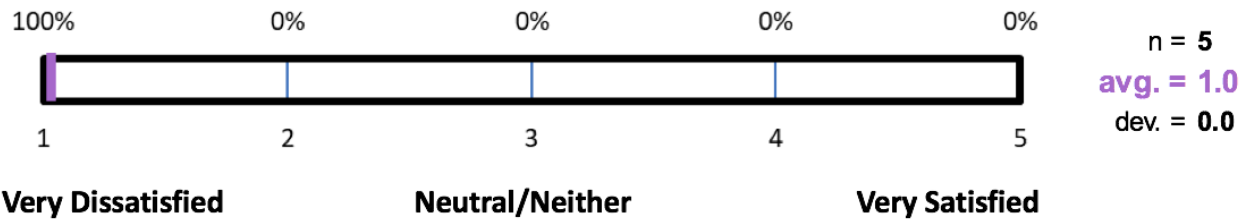
"I think a lot of fishermen see [the MPA network] as 'it's just closed and it's going to be closed forever, and they're going to make a new one and it's going to be closed forever.' And I think that a lot of fishermen's views is that they're not showing any like 'oh, let's reopen this one.' They're just creating more territory for people to poach... closures."

"I'm looking forward to hearing what's going to happen with these MPAs."

"Makes a whole lot of sense, that they aren't going to change anything because they don't have any money. [. . .] When I talked to the wardens, that's what it comes down to [is funding]."

“Whoever is implementing these MPAs should consider allowing limited entry permit holders, like lobster permit holders, to fish in the MPAs, but make sure sport fishermen can't fish in the MPAs and anyone who doesn't have a limited entry permit to fish in the MPAs.”

17. MPA Monitoring Overall, how satisfied do you think fishermen from your port are with the monitoring of the MPA network?



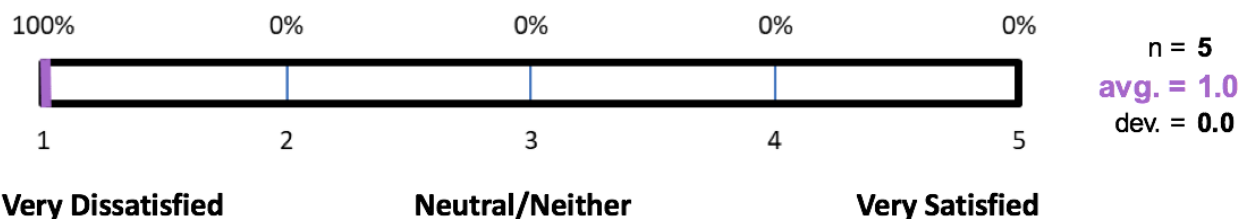
- Discussion Summary** Participants were very dissatisfied with the monitoring of the MPA network.
- A couple participants reported not seeing any on-the-water research in the local MPAs, despite frequenting the areas nearby when they are fishing.
 - One participant explained MPA monitoring efforts have not been shared and communicated with fishermen.
 - One participant shared their belief that landings data are the primary MPA monitoring tool. They are interested in learning about other types of data and studies that are being used to inform MPA monitoring efforts.

Participant Quotes

“I'm on the ocean a lot, and I have yet to see any kind of studies going on, monitoring. I've never seen any research of any iota in the local Point Loma one [Cabrillo SMR], which is at the entrance to the harbor. I've not seen any kind of research vessel, divers, anything in these MPAs. So I don't know how they're researching or how they're getting their info.”

“[MPA monitoring] is all based on our landings. That's it. [. . .] And how are you going to look at our landings based on an area that we don't land anything in? And the block numbers are so big... it doesn't make any sense to me. I'd love to hear more about how they're doing it.”

18. MPA Enforcement Overall, how satisfied do you think fishermen from your port are with the enforcement of MPAs?



- Discussion Summary** Participants characterized MPA enforcement as inadequate, ineffective, and unfair.
- A couple participants shared the perspective that effective MPA enforcement is hindered by insufficient resources (i.e., funding, capacity). They also highlighted the challenges faced by

wardens when citing offenders because of the need for concrete evidence demonstrating MPA violations.

- One participant questioned why there is not sufficient funding for MPA enforcement given the amount of revenue collected by the state through fees (e.g., fishing permits, landings taxes).
- Several participants believed commercial fishermen are disproportionately affected by MPA enforcement and face heavier penalties compared to sportfishermen. They stated an MPA violation could result in a loss of a permit (i.e., a dire impact on livelihood), whereas sportfishermen face a small fine. They explained that when an MPA violation goes into the court system, the judges taking the cases do not understand that the issues and penalties are not in alignment with the realities of the infraction.

Participant Quotes

“There's no enforcement. [CDFW has] told all of us they don't have the money, the manpower, the time. There's commercial fishermen or lobster fishermen putting gear in the reserve, hoop netters setting in the reserves.”

“The things that I've seen happen in some of these MPAs, [MPA enforcement's] just talk... I talk to wardens about it, and it's always ‘I can't prove it,’ this and that. It just... it sucks. They implemented these MPAs, and I see no enforcement.”

“You'd think that our landing tax and all that other money we spend on permits and fees would be going towards some of the stuff that would maybe help us out here and there [with MPA enforcement], but we have yet to see that happen. But we're going to keep fighting for it.”

“I think the reality is that there's no enforcement. There's a ton of sport fishermen fishing in those areas. And the thing is, we [commercial fishermen] have more to lose. If they take our permits away, that's our livelihood. Whereas these guys are like ‘oh, I might get a ticket. I'm going to go fish in the MPAs and there's no enforcement.’ But like, would we ever roll the dice? No, we have more to lose. So that's where the whole enforcement component of it doesn't make any sense.”

“That South La Jolla one [Cabrillo SMR] is just a free rein for recreational to poach or fish in and like [name redacted] said, we don't dare go in there because you could lose your permit. And if I lost one permit, I would be bankrupt in a matter of months. I wish they had 100 wardens out there every day. Enforcement's a joke. I know the guys that are in enforcement are good guys and they're doing the best they can with what they got, but it's a joke.”

“It's like, a guy gets a ticket and it goes to the City of San Diego or County of San Diego judge. And he's dealing with a million cases. And then he sees one guy who has two short lobsters or six lobsters or whatever it be, it's ‘oh, community service for a couple of days.’ But when really it's affecting our livelihood.”

19. MPA Overall Any additional comments or concerns about the MPAs and MPA management you would like to communicate?

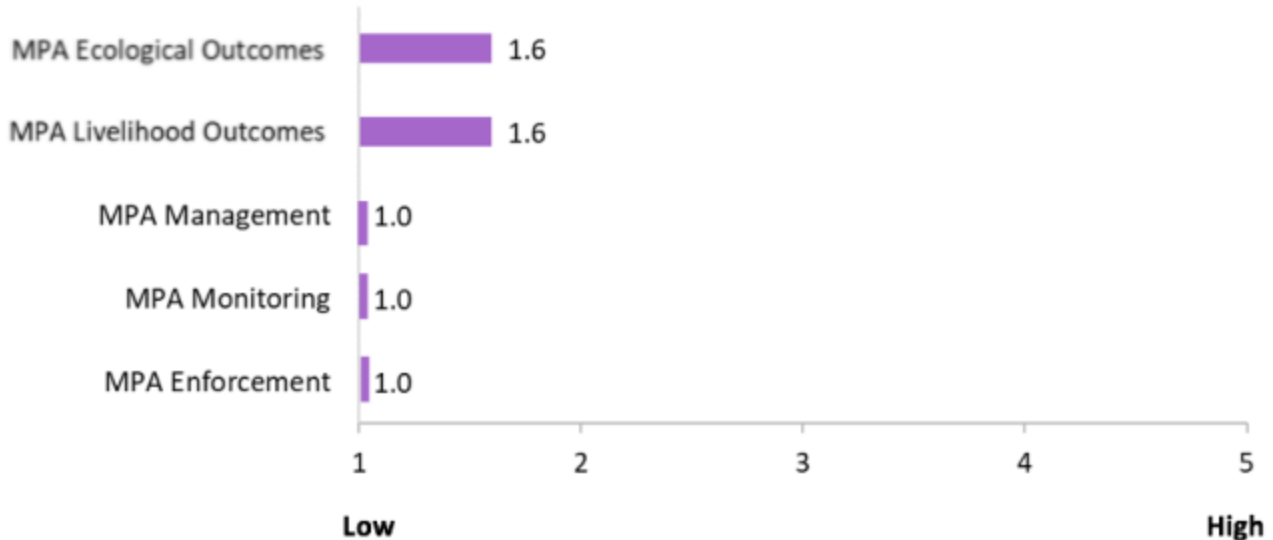
Discussion Summary Participants reiterated the need for better, equitable MPA enforcement, and the importance of considering fishermen’s perspectives and experiences in MPA decision-making. They expressed hope that decision-makers will read this and other focus group summaries.

Participant Quotes

“If you're going to close big areas of the ocean, enforce it so it's not one-sided for one group [over] another group.”

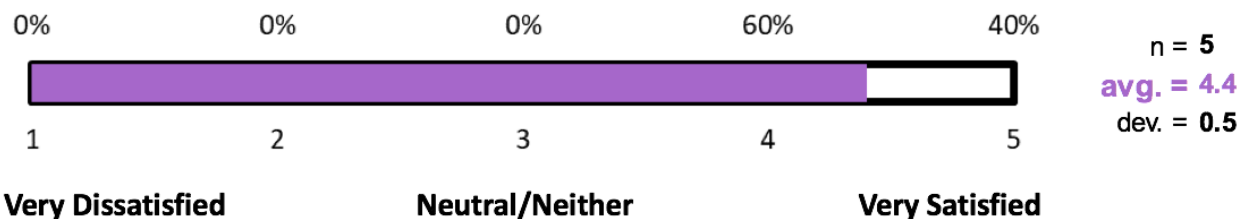
“Hopefully this will get to the right people that need to hear [what we shared].”

Perceptions of MPAs, Average Responses for Questions 13-14a, 16-18



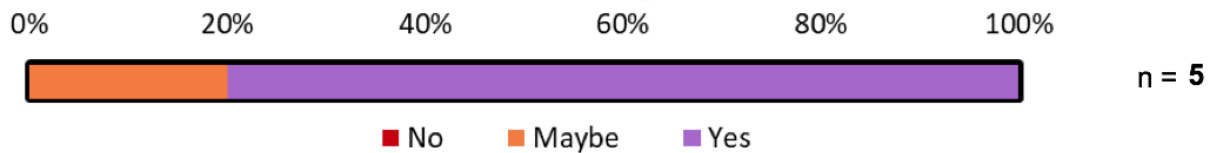
Feedback on Virtual Process

20a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



20b. Willingness to Participate in Virtual Process in Future *Would you be open to participating in a virtual focus group or meeting like this in the future?*

(Note: For the following figure, the length of the orange bar indicates the percent of participants who responded 'Maybe' to question 20b. The purple bar indicates the remaining percent of participants who responded 'Yes.' If participants responded 'No,' a red bar would appear.)



20c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Participants discussed their general satisfaction with the focus group experience.

- Several participants were appreciative of the opportunity to contribute commercial fishermen's perspectives to long-term MPA monitoring via this project.
 - They also expressed their thanks to the project team for their professionalism and efforts to include fishermen's voices in decisions and processes that affect their livelihoods.
- One participant shared their preference for an in-person discussion, and others indicated a desire for an earlier meeting time (i.e., not ending at eight in the evening).

Participant Quotes

"It is extremely refreshing to see that you guys are [. . .] talking to commercial fishermen in comparison to the other things that are going on with those areas [MPAs] that were funded. It's great."

"You guys are great. We appreciate the effort. A lot of boring stuff that none of us want to do, but we appreciate it."

"Thank you for getting some fishermen's perspective. I appreciate it. The only horrible thing was this darn Zoom. I got a crummy computer. Maybe we could all meet in a big room one day."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Passenger Fishing Vessel Fishing Communities in Relation to the MPA Network

Members of North Coast Area's Commercial Passenger Fishing Vessel Community

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with commercial fishermen and Commercial Passenger Fishing Vessel (CPFV) owner/operators throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and CPFV fishing communities in California, including impacts from MPAs. A key goal of this study is to convey commercial fishermen's and CPFV owner/operators' perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of CPFV owner/operators were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, income, allocation of resources, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where commercial fishermen and CPFV owner/operators were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Regional CPFV Port Group: North Coast Area Ports (Point Arena to Crescent City)

Date: Monday, February 8, 2021

Participants: four anonymous participants

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

Overview

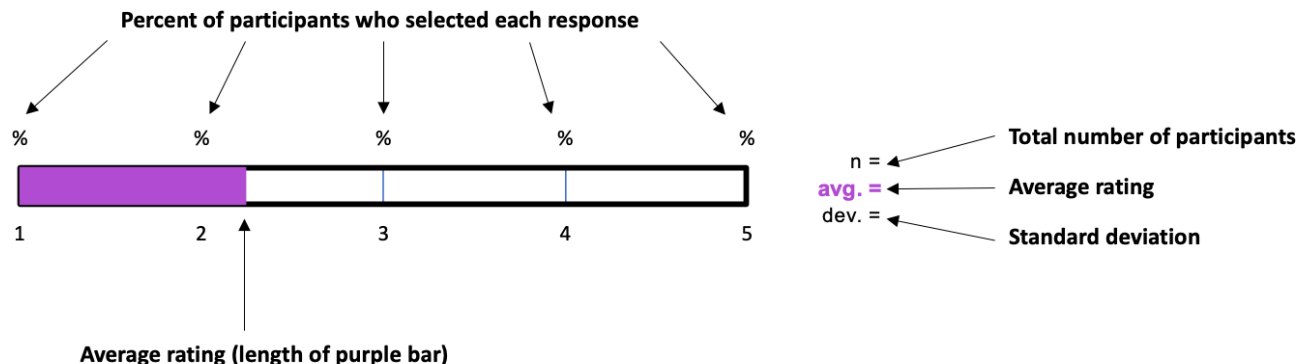
On February 8, 2021, four CPFV owner/operators out of the North Coast area (between Point Arena and Crescent City) participated in the nineteenth focus group conversation overall/third CPFV focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Perspectives from one North Coast CPFV owner/operator who provided their input in a separate focus group is included in the narrative, but not in the scoring.

Guidance for Interpreting Figures

There are 14 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 13 and 21 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

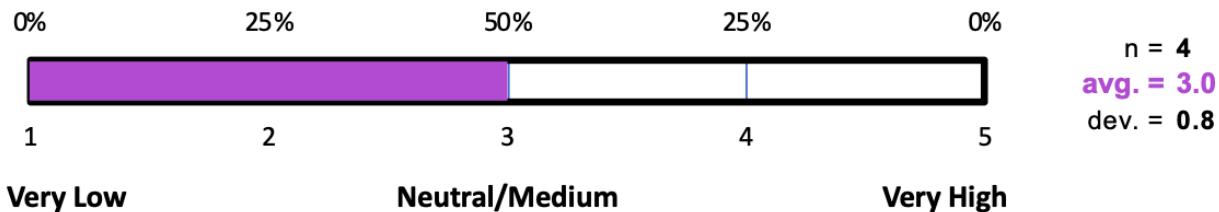
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- Details about the [MPA Baseline Monitoring Program: North Coast](#), including a [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2013–2017, North Coast](#) and the [Marine Protected Area Monitoring Program, 2019–2021](#)
- An article about Governor Newsom's [Executive Order related to protected areas and the 30x30 initiative](#)

Our Project Team would like to express our appreciation to the four anonymous North Coast area CPFV owner/operators for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resources - Present State Overall, how would you rate the current health and sustainability of the marine resources on which CPFV owner/operators from this region rely?



Discussion Summary Participants stated that while the salmon fishery is in poor health, other California fisheries are in good condition.

- A few participants stated that many California fisheries are healthy with the exception of salmon. While salmon fishing was their primary target when they started their businesses, the decline in salmon stocks in recent years has caused them to change their business models to target alternative species including tuna, halibut, and rockfish.
 - A participant explained that salmon hatcheries have not benefited stocks north of Point Arena since the 1980s because the fish are not travelling north.
 - A couple participants agreed that the salmon fishery has been poor in recent years, but stated stocks are often cyclical in nature.
- They stated that the rockfish conservation areas (RCAs) and other fishing restrictions have led to the rebuilding of rockfish stocks.

Participant Quotes

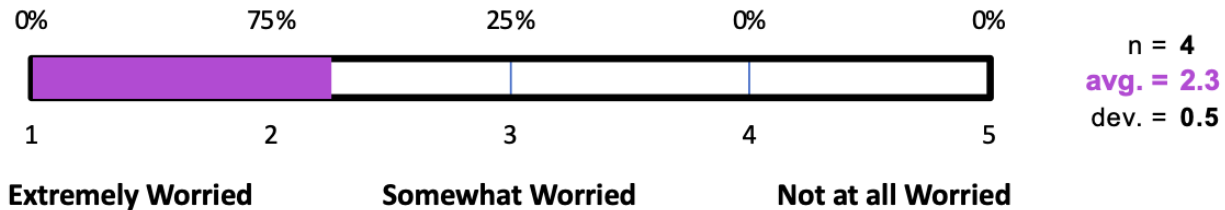
"[...] when I bought my boat, I thought it would be a salmon boat. And now my boat is a rockfish, halibut, tuna boat, because Eureka used to be one of the top salmon ports in the western [United States]. And now it's pretty bleak. [...] I think the other fisheries are healthy, but I'm not catching the species that I thought I would be catching."

"Fort Bragg [is] basically in the same boot/shoe as up north. [Over the] last three years, salmon here has been just... yeah, [in] one day the boats down south of Point Arena probably caught more fish than Fort Bragg caught the whole season, if you added all the boats out of San Francisco. The return here was just not great. [...] Years ago when I first started out, 90 percent of my business was salmon fishing. Now it's probably 15 percent."

"It seems like the majority of the fish in the hatchery programs never make it past Point Arena anymore. We've all said for a number of years here that we have a lot of availability and resources [because of] hatchery fish. I go back to the 1980s when we had the same type of thing: [...] really depleted [wild] salmon population, [and] hatcheries came on strong. You'd have 30, 40 boats - charter boats out the gate - in the [San Francisco area] and everybody returning with a nice 10 to 12 pound hatchery fish limit at 10:00 in the morning, day in, day out. [...] We've proven that we can put fish back in the ocean and it helps the economy up and

down, inside the valley, and on the coast. [...] I think we're not seeing proper management of what we could to [benefit] the fisheries.”

2. Marine Resources - Future Concerns Overall, how worried are CPFV owner/operators from your region about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants were generally very worried about the long-term sustainability of marine resource populations because they felt they are not being properly managed and are experiencing pressure from commercial trawl operations. There is concern about the general health of fisheries, especially salmon, over the next five to ten years.

- Various participants expressed concerns that managers are not properly managing salmon because managers are allowing so much catch that the populations are not restocking.
- A couple of participants stated that trawling has been an important contributor to collapsing fish stocks (e.g., lingcod).
 - Even though rockfish stocks are currently healthy, as managers allow access for commercial trawl vessels, participants believed rockfish are headed down the same road as salmon since there will be too much pressure on the rockfish stocks. Additionally, participants expressed the belief that the volume caught in a trawl, and by commercial fishing more broadly, puts more pressure on fish stocks than recreational fishing.
 - A participant estimated that commercial trawl operations can catch in two days what the CPFV fleet catches in an entire season from Fort Bragg to Crescent City, which can cause large-scale negative impacts on stocks. They stated the sport fishery has a much smaller footprint than commercial fisheries.
 - Conversely, one participant stated that trawl vessels have been excluded from RCAs for many years and stocks have rebuilt enough to support trawling again.
- One participant was optimistic about the future of the resources the CPFV/charter industry relies on and believed people will continue to want to recreationally fish.

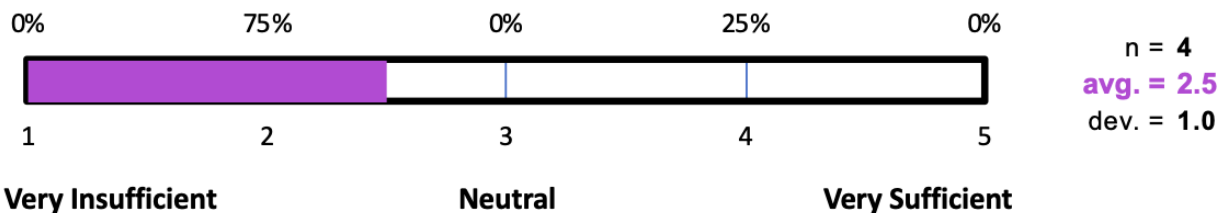
Participant Quotes

“Rockfish is probably more indicative of what's going on in the ocean. [...] Rockfish was good, but not great. And with the restrictions that they've had over the years [like RCAs], it's actually gotten pretty good. But now that the stocks are rebuilding on canaries and stuff, they're starting to lift some restrictions where trawl boats are getting access to waters they haven't had access to for a long time. And I'm not saying anything negative about them because they waited a long time for this. But now we're kind of going back just a little bit as far as [there being more] pressure on some of the resources. So I would say right now it's really good. But... [the California Department of] Fish and Wildlife has been pretty good about closing the door after the horse got out, so I'm concerned a little bit about where we're going to end up maybe in five or ten years from now.”

"It's a strong coincidence that the first year that those nets were let out the gate, our lingcod fisheries plummeted, especially up here on the North Coast. We have weather events that are so severe that the fish get pushed off the rocks out into the deeper water. And at that time, with those high wave events, it pushes all of the fish out of our MPAs into the open water. They go out in the open water and get scooped up by nets. [...] We figured that one [trawl] boat in two days would catch more fish than the entire sport fishery from Fort Bragg to Crescent City, if they were catching them at the rates that were rumored. [...] It's like you can cut the sport fleet loose anywhere, in any depth, And they wouldn't be doing the amount of damage that those guys [commercial fishermen] are doing. So I think that the charter fleet is providing small communities with the highest dollar value per pound for the rockfish that are being harvested off by reefs. So if you're looking at the community scale, I really want to echo what [name redacted] said about we need to make sure that we close the gate before the horse gets out of the barn because those drag guys have done damage in the past, and I don't want to see history repeat itself to where I have to wait the rest of my career before I can catch a decent lingcod again."

Well-Being, Economic

3. Income from Fishing Overall, how would you rate the income that CPFV owner/operators (including crew) from your port earn from fishing to support livelihoods?



Discussion Summary Participants generally believed income for CPFV operations is insufficient because many CPFV owners, operators, and captains have to supplement their income with other jobs.

- A participant explained that unlike experiences in Southern California, depth restrictions and poor weather along the North Coast in the winter and summer make it difficult to earn money during times that are ideal for customers. They believed longer fishing seasons are needed to support larger operations, the ability to do multiple trips per day, and to ensure folks can make a viable living.
- Two participants explained that the population is smaller along the North Coast and there are few prospective customers who will drive up from population centers like San Francisco to fish out of North Coast ports, resulting in limited demand for CPFV trips out of North Coast ports.
- A participant stated that the income from fishing is sufficient if their vessel doesn't break down, there are no fishery closures (e.g., early halibut closures in 2020), no COVID-19 impacts, etc. However, in recent years, all of these things have been issues that have greatly affected CPFV owner/operators' ability to make a sufficient living.
- Two participants shared that the cost of fuel in Fort Bragg has increased exponentially. They explained their understanding that the California Department of Fish and Wildlife (CDFW)

implemented new regulations that required a company out of Eureka to remain on standby as fuel was trucked into Fort Bragg which resulted in an increase of \$0.70/gallon of diesel.

- One participant shared that CPFV/charter fishermen operating out of Shelter Cove earn sufficient income.

Participant Quotes

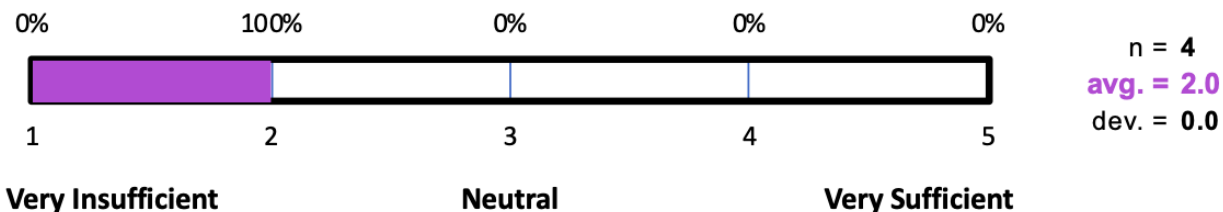
"I selected insufficient because [of the] need to take [on] other jobs, and I have four jobs. And the other charter captains that I know also have multiple incomes. It's hard to make a living solely on charter fishing when we are shut down in the winter. Unlike other regions of the state, we have the least amount of people [on the North Coast]."

"I put insufficient just because if you're trying to raise a family or something, I don't think you could really make it just on one income. I know most of the guys here either have multiple jobs, like [redacted name] said, or their wives have good jobs [...] And if you're raising a family, I think that's what it takes because you don't get any benefits [like] health care being a charter captain. And you're just one major breakdown away from, you know, not having a good year. [...] There's a lot of risk for what the reward is."

"The thing I see for the larger capacity boats is it's not just a short drive [to North Coast ports,] and for losing January, February, March, April - a significant part of the year - you can do a whale watch, but it [would] sure be nice for the larger boats to be able to do, or any of the boats, to have a rockfish trip in the morning and then do a nice afternoon whale watch and have the deckhands make money - obviously, the operator makes money - but everybody now has to budget and plan for that. We're well aware of it each year. [...] But there needs to be a longer season on the rockfish and the ability to keep somebody working at it full-time through the year in order to make a living."

"The biggest thing for Fort Bragg in the recent two weeks is Fort Bragg does not have a fuel dock, so it's all trucked. The Department of Fish and Wildlife did all these things and we, all of a sudden, got a 70 cents per gallon increase because of what the Department of Fish and Wildlife are making the fuel company operate. So that is a huge one for Fort Bragg as far as expenses [...]. Supposedly they have to hire a company to be on standby out of Eureka for a minimum of four hours at \$150 an hour every time they deliver fuel to Noyo harbor."

4. Allocation of Resources Overall, how would you rate the allocation of fish resources for CPFV fisheries in terms of supporting the CPFV industry?



Discussion Summary Due to increasing competition between recreational fishing and commercial fishing, coupled with limited and shortened fishing seasons, participants generally believed allocation of resources is insufficient.

- A participant explained that over the last few years, there has been greater competition due to increases in the numbers of recreational fishermen, fishing charters, and commercial fishermen. Additionally, in Fort Bragg, there is a small area that is fishable, which further increases competition. A couple participants clarified that Dungeness crab fishermen who have experienced hardship over the last few years due to shortened seasons, fisheries disasters, and lower catches have been transitioning to rockfish to supplement their income, which hinders CPFV operations.
- One participant stated that they have seen a decrease in lingcod catch in recent years. They questioned whether it was the result of increased fishing pressure in open areas or because lingcod have moved away from fishing grounds.
- One participant reported the amount of CPFV and six-pack fishing operations increased exponentially in the Fort Bragg area this last year, resulting in capacity constraints within the harbor where there were no parking spaces for cars.

Participant Quotes

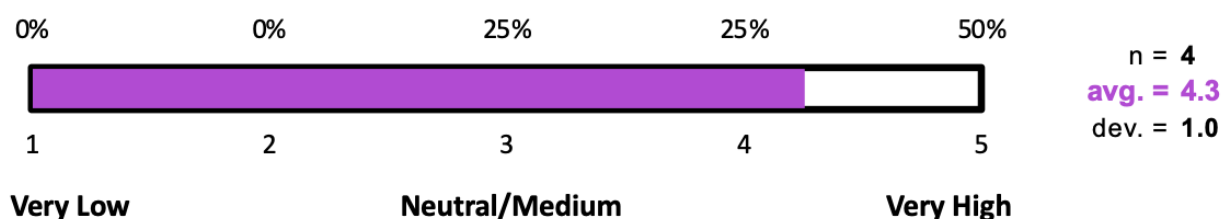
"I see just [in] the last couple of years, there's a little more competition, maybe, on the fishing grounds than we've had in the past and it's everybody, competition-wise: there's more guys with sport boats out. There's more charters now. There's commercial fishermen that have had a couple of bad years, so they're looking for new places for revenue, you know, new fisheries to explore and stuff. So we're seeing more of them in more places than we've seen in the past."

"There is open access fishing itself allowed for four months out of the year and nothing on the sport side, which, as charter fishermen, we are sport fishermen because that's where the classification is. So that was my only point: allocating as much time on the water [for sport fishermen] as people [who are] allowed to open access rockfish [have]. There should be a sport season for it also."

"I'm looking at the crab season as it's going right now, and there could be a lot more open access fishermen coming out of that disaster, too. So these boats have to make a living somehow. And I feel like the fallback is often rockfish. So we'll see what it looks like in the near future."

"The amount of fishermen this year is crazy here with the amount of boats that were launched out of the harbor, especially when the tuna were here. There are probably 150 boats here. You couldn't find a parking spot alongside the road over in South Harbor [in Fort Bragg] where they launch the boats. Definitely a lot of impact."

5. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your region's CPFV fishing operations?*



Discussion Summary While COVID-19 had mixed impacts on participants' businesses, participants generally agreed that COVID-19 was very disruptive and caused a lot of changes in the way they operate.

- A participant explained that the tight COVID-19 restrictions on travel had a large impact since customers from inland areas who had booked a trip cancelled shortly before their reservation. Additionally, CPFV operators were unable to travel to their nearest shopping centers upwards of 50 miles away to gather supplies.
- Various participants shared the challenges of getting approval from the local government to resume fishing trips after the initial COVID-19 shutdowns.
 - One participant explained that their local authorities let them carry passengers throughout the pandemic as long as they followed safety protocols (i.e., stay out of the cabin, maintain a six foot distance, perform regular sanitizing, etc.). They stated that in years past, many of their passengers had been tourists, but this year many were locals and the operators were selective on who they would let onboard based on how far they travelled to get to the boat.
- A few participants explained there were many more cancellations this year than in years past. Some participants stated that they were able to fill the cancellations with local customers. Others lost a lot of business due to the loss of tourists and a lack of a local network to rely on.
 - A couple participants highlighted the changes they made in their operations to accommodate the instability of COVID-19 protocols including targeting local customers, targeting customers they had existing relationships with, and changing their booking process so folks could reserve the entire boat rather than reserve individual fishing trips with passengers outside their bubble or 'pod.'
- One participant mentioned that CPFV/charter fishing operations were delayed due to COVID-19 protocols.

Participant Quotes

"We had a fair amount of cancellations from out of the area, and we filled in a lot of it with local business. And after that, [...] we pretty much mostly took regulars or people we know - we didn't take people from LA or San Diego if they wanted to come up and fish, but we did take people from Redding and Anderson and Chico and stuff if we knew a little bit of their health history. At the end of it all, other than having a bad salmon year, the business was average for us, it wasn't bad and it wasn't good, so it really didn't hurt us too bad last year. And the bookings are lined up this year, too. So I think we're going to be OK as long as they let us continue to operate like we were."

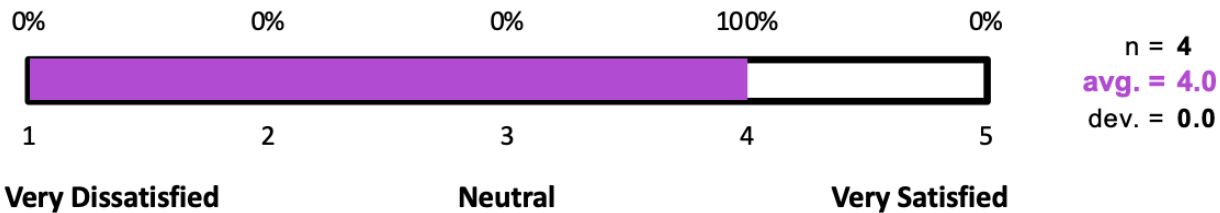
"[...] I just don't have a large clientele base. [...] A lot of my clientele flies from the Midwest to Northern California to fish with me. And I lost probably a third of my client base for hunting and fishing trips. [...] My hunting and charter businesses took a pretty heavy hit from [the loss of] my out-of-state clientele base."

"Since I have a small six-pack, I set up boat pricing and made clientele build trips to fill the boat. The boat had a price and [it was the customer's] job to find family or friends or whoever [they're] willing to share COVID with. And that actually made my booking process much easier because I wasn't trying to take individuals from around the world and pair them together. So

that was another piece of it that was a perk that I might even carry on after COVID because it made my life a lot easier, planning-wise.”

Well-Being, Social/Political

6. Job Satisfaction Overall, how satisfied do you think CPFV owner/operators from the region are with their jobs?



Discussion Summary Although the CPFV industry is challenging, participants were satisfied with their job and agreed that it was generally fulfilling.

- Several participants explained that they enjoy interacting with people and providing memorable experiences for their customers.
- All participants highlighted the joys they experience watching customers catch the biggest fish of their lives or spotting a whale.
- A couple participants discussed the challenges of the job, including how difficult it can be to support a living, and expressed concerns about the longevity of their job security. Another participant stated that because they run a small business with no employees, it can be difficult to answer the phones, book the trips, run the boat, and pay the bills.

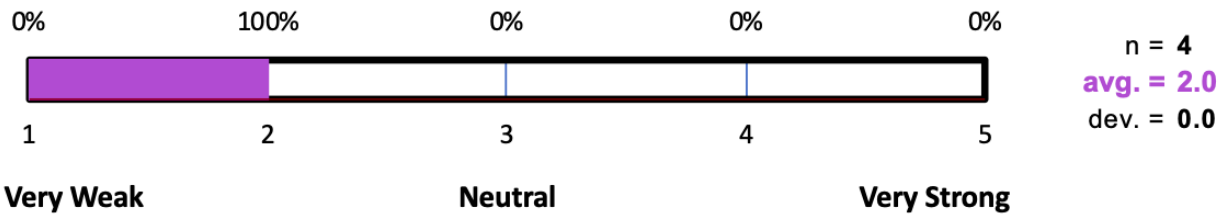
Participant Quotes

“[...] I feel like most charter captains are ‘people’ people and are happy to see new faces come across their desk every day and have contacts across the state and/or nation. So that's what I like about it.”

“[...] When you have kids on or somebody catches the biggest fish of their lifetime or they see a whale up close and they've never seen one - there's just so many great aspects to it. And I think that you don't see anybody dropping out of the business. You know, I see more and more [coming in] all the time, but I don't see too many people going away. [...] You're not going to get rich doing it, but you're going to have an enriched life doing it, I think is what it is.”

“Well, I put that I'm really satisfied with my business. [When I] started my business 22 years ago, they had a pool saying that I wouldn't last a year. So I took my business and I ran with it and I'm still running with it. It's to make people have a great day, get kids out there - five and six years old - and see them catch their first fish. There's nothing better. The downside for mine is I'm a one-man show. I answer the phone, I book the trip, I run the boat, I pay the bills and it's overwhelming. But at the end of the day, my office window is always nice.”

7. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) among CPFV owner/operators in your region?



Discussion Summary Participants reported social relationships among CPFV owner/operators in North Coast ports are very poor, primarily because CPFV operators are not used to working with other CPFV operators.

- A participant explained that similar to commercial fishing, CPFV operators are their own bosses who are not used to working in a collaborative, cooperative environment. Although some operators have seen the value of working together from other ports and communities, there have traditionally been challenges in the North Coast area.
- A participant stated that the demographics of CPFV operators in Fort Bragg have shifted toward younger individuals who have different views on sharing business (i.e., advice, clients, etc.) and collaboration.
- A couple participants highlighted that they have built friendships with other operators, but many do not “play as well with others.”

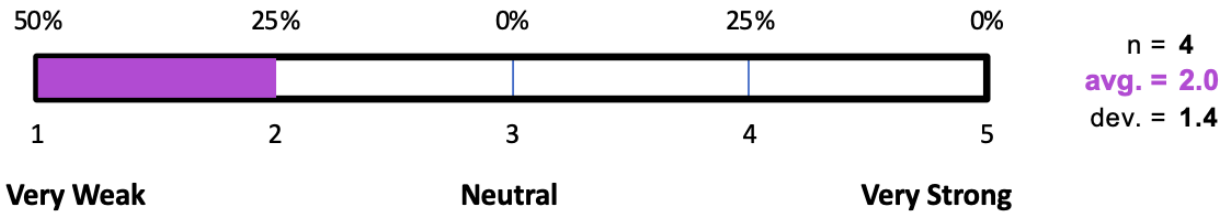
Participant Quotes

“It's a great job, but it tends to attract a lot of egos. And a problem with egos is it makes people [not] want to work together with other people quite so well. And a lot of guys understand that you have to work together, you know, to some extent and stuff. But it's a little bit like commercial fishing in the aspect that you're your own boss out there, you're doing your own thing, and you don't want anybody else telling you what to do and stuff. That's one of the reasons you're doing it.”

“It works out a lot better in the long-run when everybody kind of works with the same program to some extent and stuff. But I think there's personality reasons why that doesn't always work out that way.”

“Well, I'd have to say that I've been out of the Fort Bragg Harbor all my life and over the years it's definitely changed. Other than me and [name redacted], most of the charter boat captains are in their 30s. Definitely a different mindset in the industry. But communication in this harbor, I'd have to say it's one of the worst ones I've seen on the whole West Coast. Communication, gettin' along, nah. Doesn't happen here. Unfortunately, I mean, there's a lot of clientele that could be happy if [they] couldn't get on one boat to get on another boat, but to share business here... it's not there. And it's sad.”

8. Social Relationships - External Overall, how would you rate the strength of relationships between CPFV owner/operators in your region and external groups who could help support industry needs?



Discussion Summary Participants believed the strength of relationships between CPFV operators and external groups is weak due to lack of engagement in policy discussions among operators.

- Some participants have engaged and sat on boards and advisory committees, and noted the lack of engagement by the CPFV community more broadly.
 - A participant noted that CPFV operators and fishermen don't generally have a voice in the management of the fishery and believed they could better inform management and industry decisions if they were more organized.
 - A couple participants supported establishing organized groups of CPFV operators because there is power in numbers and because they are great opportunities to network and work with outside groups in ways that could have large benefits to the community.
- One participant stated that being part of an association improved advertising opportunities for their business.
- One participant explained that while sitting on the board of a large charter boat fishing association, they encouraged their peers to join which not only helped grow the association but also ensured they have funding available to support members during years of hardship. However, they stated many operators have not identified participation in such an association as a priority.

Participant Quotes

"I'm in a lot of different organizations through one of my other jobs working for the [redacted]. And I'm active in that job in a lot of those scenes, and I see no other charter captains in those scenes with NGOs and other groups, including even the local Fish and Game Commission - I'm a Fish and Game Commission appointee by my Board of Supervisors members. I've never seen another charter person there for ocean fishing. [...] I just don't see the presence of the charter community in outside groups, whether it be the Coastal Commission meetings, whether it be Fish and Game Commission meetings, local or state. I just don't see them. We're a 'non-group' is what I would call us."

"I'm on the board for a large charter boat fishing association, and I've tried to encourage some of the other guys on my dock to join because there are some benefits from joining. And this association has helped sometimes when there's been some money available if you had a bad year, we've had some salmon disaster money and crab disaster money in the past. And these guys have worked hard through that organization to get the money. And pretty much everybody just blows it off. So I think I may be the only [CPFV] member [of the fishing association] on the North Coast right now, but I see the benefit of everybody kind of working together and both belonging to an association and stuff where you have a little more strength that way and maybe a little bit of pull. But that goes back to the 'everybody's an individual' and stuff. And that's one

of the reasons you're doing this thing, is to be an individual. Being part of a group is not for everybody, and I understand that, but it can be a benefit at times too.”

Well-Being, Overall/Additional Comments

9. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's CPFV fisheries?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants shared their experiences and concerns with the management of the recreational fisheries sector, marine spatial planning, and natural resources more broadly.

- A participant shared the belief that recreational fishing has a minimal impact on fish stocks.
 - One participant shared that despite recreational fishermen having minimal impact on fish populations, restrictions are not being lifted for the recreational sector in the same way they are for commercial fishermen. They specifically referenced the lifting of trawling restrictions in RCAs, while not opening any new areas for recreational fishermen. Two participants said they would like more RCAs to open to allow recreational fishing.
- A couple participants highlighted the value of artificial reefs in mitigating loss of fishing grounds by creating fishing opportunities closer to the ports. These reefs could also be used when there are poor fishing conditions due to weather. They would also allow underserved populations who don't have boats that can travel 30+ miles to fish closer to port. Participants explained that artificial reefs were once a tool being considered by state managers and are now not being pursued.
- Multiple participants expressed concern about the negative impacts of wind energy and more MPAs on the fishing industry more broadly.
 - A participant stated they are optimistic about CPFV fishing in the near-term but are concerned about what it will look like in ten years if there are wind farms, more MPAs, and RCAs that allow trawling but no recreational fishing.
- A participant requested fisheries managers consider extending the rock cod season in ports like Fort Bragg where they are limited to two species - rock cod and salmon - since local habitats generally do not support other species.
- One participant recommended that fisheries managers do more on-the-ground monitoring using the fishermen as a resource before making decisions that affect the fishing industry.

Participant Quotes

“I don't feel as though [sport fishermen] have an egregious impact on the fish population, at least in Eureka, because we gotta drive so dang far to get to them. And I see depth restrictions increase for open access, I see netting restrictions decrease for guys dragging nets, and then I don't see anything shift at the same time for the recreational guys. [...] I don't see that fishing community [recreational fishermen] making a huge impact.”

"I would suggest revisiting the conversation around what can we do to create artificial reefs with all of this material that we have as humans, aka concrete [...]. Potentially building artificial reefs closer [to port] rather than closing off more natural reefs, I think that's the only thing that's been resonating for me in the back of my mind [throughout] this whole conversation."

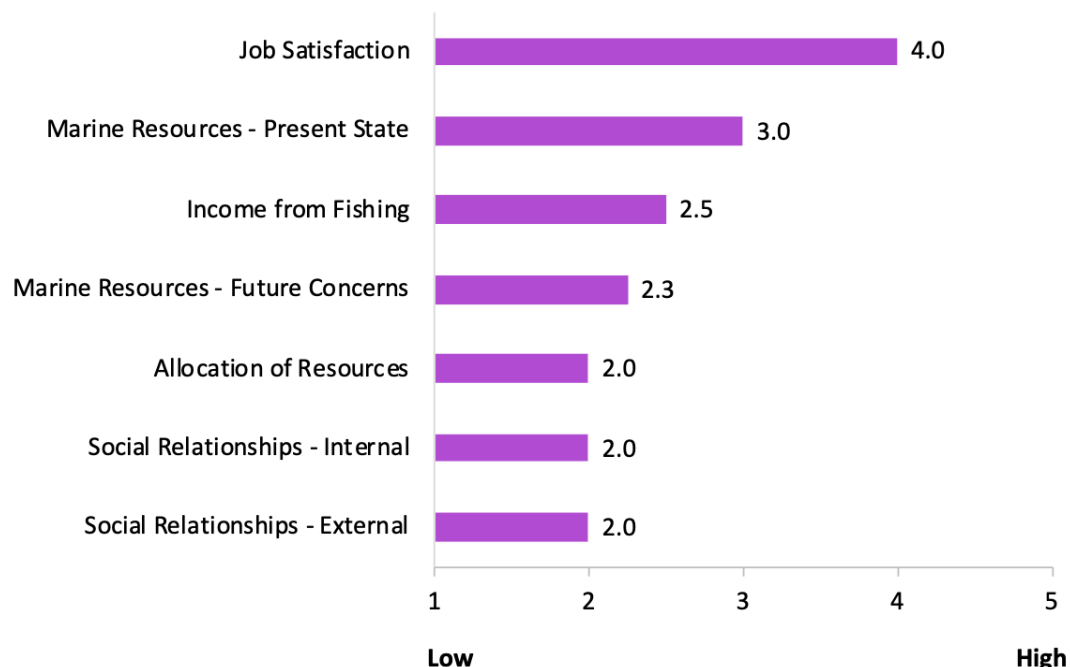
"[The California Department of Fish and Wildlife] are not very pro-artificial reefs. [...] Then we got wind energy and stuff where maybe we're going to lose some more territory and maybe that can be made up with some other artificial reef for that type of thing. You know, if we end up losing fishing grounds to wind energy, who knows where we're going. I'm pessimistic for ten years from now, but I think the next few years look pretty good to me, I think we're headed in the right direction... for now."

"Fort Bragg has two fisheries that we rely on: salmon and rock cod. We don't have halibut here. Charter boats tried it... waste of time because there's no abundance or a good place close enough for the charter boats to do halibut trips. So, yeah, a longer rock cod season would definitely be the big bonus for our area because of the limited fisheries that we have."

"The people who are making the rules, [I think they should] get out on the water and put a line in the water and see what's there, and I know they do it sometimes, but I think they need to do it more. Maybe with renting charter [boats] [...] But I think they could benefit from being on the water."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-4, 6-8

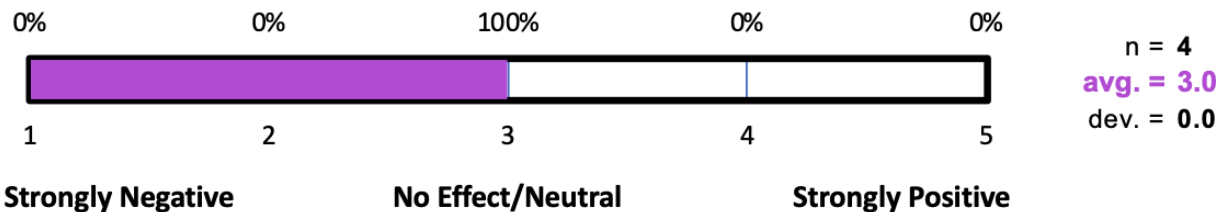
(Note: The following figure does not include the average rating for question 5. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

10. MPA Ecological Outcomes How would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants scored the effect of the California MPA network on local marine resources as 'No Effect/Neutral' because they either didn't have information to inform their score or they haven't seen a noticeable change in catch on the edges of the MPAs.

- One participant shared they felt they were too new to the port to answer this question adequately, and so scored this question as 'No Effect/Neutral.'
- Many participants have not observed positive increases in catch as a result of MPAs. The only impacts they are experiencing are limitations on where they can fish.
- One participant explained that MPAs do not have as much of an impact on fish populations as good fisheries management. For example, if the fish stocks were poor before MPA implementation, MPAs may help to improve resource health; however, if the stock was healthy, MPAs will likely have little effect. A couple participants were uncertain of the impacts MPAs have had on fish stocks.
- One participant highlighted that rockfish stocks are indicative of the performance of MPAs.
- A participant stated that they are not seeing spillover from the MPAs when they fish the edges and often can get the same catch at an area several miles from an MPA.
- Various participants explained that they have not seen scientific data to inform their decision. One participant has seen a monitoring vessel in their area from time to time, but have not seen the results of that research and, therefore, is unsure whether the MPAs are having an effect on marine resources.

Participant Quotes

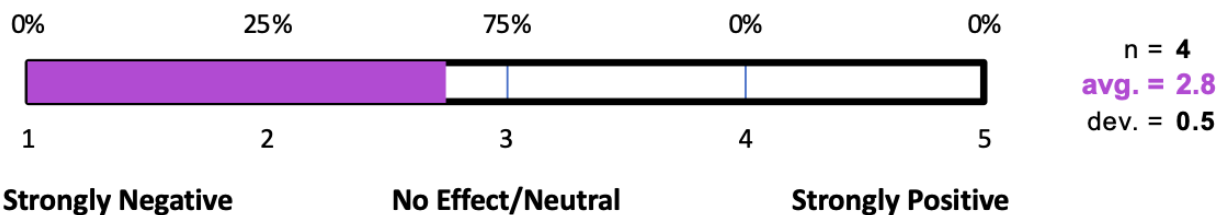
"I don't know enough about the population dynamics to know, [like] feed populations versus source populations, because I'm not a marine biologist. The only things the MPAs [are] doing, as somebody with my ignorance level, [are limiting] the number of rocks you can go to. And in some days, the fish are on some rocks and some days they're on different rocks and you never know which days it's going to be, so you just kind of take your boat out and bounce from rock to rock until you find fish that want to bite. And sometimes [there's] a rock covered with fish and the fish don't want to bite and you go back and they all want to bite. So I see it as limiting the number of locations that we can potentially take clients to on our boats. Beyond that, I'm just too ignorant to be able to shed light on the differences, the changes or population dynamics or any of this stuff. I'm not the right guy [to ask]."

"Since I've been fishing there for a long time and stuff near the MPAs, we kind of knew going in with the whole MLPA [Marine Life Protection Act] that in well-managed fisheries, MPAs are not as strong as they are in areas with poor management - they don't have as much effect. And that's kind of what we're seeing really: that the fisheries management has had more effect on our fisheries than the MPAs. We fish fairly near one MPA, but we don't really see [...] that the fishing is any different along the edge of the MPA as it is, you know, several miles away from it - it's actually fairly similar. So I would say that there hasn't been a noticeable effect either way."

"I think there is a vessel that does some of the research in some of the areas up here, but again, I don't know what days [that vessel is on the water] and what the impact of those studies show, but I guess it would be interesting."

"I'd like to see more data."

11a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for CPFV owner/operators from your region to earn a living?



Discussion Summary Please see the **Discussion Summary** following question 11b. *MPA Effects - Overall* which summarizes the conversations related to questions 11a and 11b.

11b. MPA Effects - Overall What other types of effects or impacts have CPFV owner/operators from your region experienced from MPA implementation?

Discussion Summary While MPAs have had little effect on the participants, they explained that MPA impacts vary from port to port based on the fisheries available to that port and the distance needed to travel to get to fishing spots. For example, a port like Fort Bragg with limited options for fishing would be more affected than a port like Crescent City that has closer access to more desirable fisheries (e.g., lingcod, rockfish, salmon, black cod).

- One participant shared they felt they were too new to the port to answer this question adequately, and so scored this question as 'No Effect/Neutral.'
- Multiple participants shared that MPAs along the North Coast were generally placed in areas where there is less fishing, which has reduced the negative impacts on North Coast CPFVs in ports like Eureka and Crescent City. However, MPA impacts are great in some ports; Fort Bragg has fewer fishing opportunities and Shelter Cove has an inability to travel longer distances due to the small size of the vessels in the port.
 - In addition to MPA impacts, all participants expressed concern that the 30x30 initiative would have strong negative effects on the fleet and could force North Coast operators out of business.
- Multiple participants stated that while they have witnessed younger individuals joining the charter boat industry, they have not seen folks leave the business as a result of MPAs.

Participant Quotes

"[...] Each port up here [is different] from one from another. Eureka has a long way to go for rockfish fishing. Trinidad has very close rockfish fishing, but maybe not usually as good as salmon fishing. Fort Bragg has, I think, a little more fishing pressure than like [Eureka's] rockfish. [...] Crescent City is pretty heavy rockfish stuff up there, and it's pretty good rockfish fishing there. They have more variety and definitely more lingcod than Trinidad does, so they did have a little more flexibility with the lower black rockfish limits and stuff. And they have very close rock fishing as opposed to Eureka, which has a long ways to run. So yeah, they're all different."

"[...] One of the things we tried to do [in] the first go around on the MLPA initiative was to put MPAs in places where boats still had close fishing [available], where they didn't have to go through a bunch of MPAs to get to the fishing grounds that would be farther away and more difficult to get to in bad weather. And so I think that has actually paid off pretty strongly that we're still able to fish a lot of the areas that we may have been unable to fish if some of our close fishing grounds were MPAs. And so the MPAs I think were put in logical places to where they achieve their goals as well as not affect us too much. But I think that that was because of the limited areas that the MPAs took, and I think that, you know, if they're talking about the [30x30] expansion and stuff, that if you doubled the areas, that we would lose that advantage. And I think that would be a totally different program at that point."

"Nobody has left here [as a result of MPAs], as far as I know, one guy might have retired... no effects of the MPAs."

MPAs, Discussion of Specific MPAs

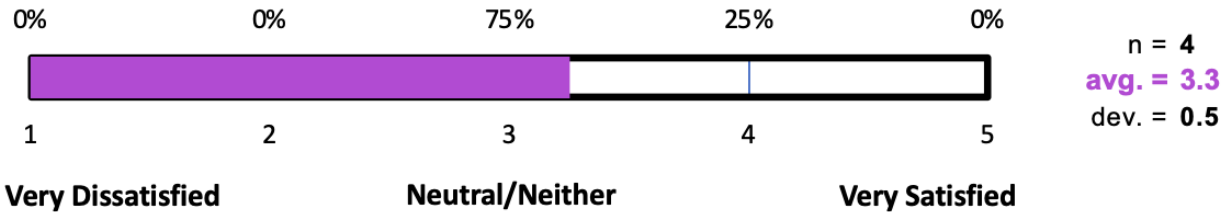
12. MPA Effects - MPA Specific *Which MPAs have had the most impact on CPFV owner/operators from your region and why?*

Discussion Summary Participants shared very limited responses in regards to their experiences with the MPAs, but shared that North Coast MPAs were generally placed in areas that were less impactful compared to other regions; impacts also vary by port.

- *Big Flat State Marine Conservation Area (SMCA)*: One participant mentioned that CPFV/charter boats can no longer target rockfish or halibut as a result of this MPA.

MPAs, Management

13. MPA Management Overall, how satisfied do you think CPFV owner/operators from your region are with the management of the MPA network?

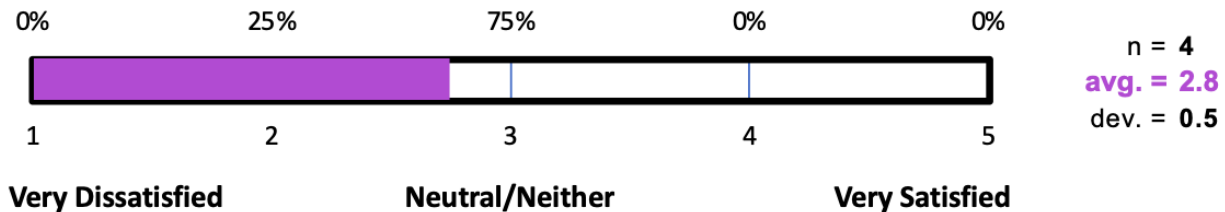


Discussion Summary Due to the lack of information they have received on the management of MPAs, participants scored this question as 'Neutral/Neither' since they didn't feel they had enough information to properly answer the question. One participant shared they felt they were too new to the port to answer this question adequately, and so scored this question as 'Neutral/Neither.'

Participant Quotes

"[...] I don't even know how [the MPAs are] being managed to know how to answer the question about management, because I've been provided with no information."

14. MPA Monitoring Overall, how satisfied do you think CPFV owner/operators from your region are with the monitoring of the MPA network?



Discussion Summary As a result of not seeing MPA monitoring data/results, and concerns about the lack of opportunities for utilizing fishing vessels in the monitoring process, participants were somewhat dissatisfied with the monitoring of the MPA network.

- A couple participants stated that they have not yet seen any monitoring results and scientific reporting on the MPAs. One participant explained that while it can be difficult to reach the CPFV fishing community, there are venues and channels through local fishing associations in which monitoring information could have been shared over the years.
- Many participants expressed disappointment with the lack of opportunities for charters to participate in monitoring activities. They stated that since monitoring is conducted with state funds, it should go out to bid rather than just relying consistently on a single operation, which is currently the case.
 - One participant stated that they participated in monitoring at one point but because the researchers requested them to do survey trips on profitable days with nice weather, the participant had to decline those survey trips for a period of time and was never asked to support the monitoring again despite being available and interested.

- Participants were unclear on monitoring data and protocols and asked questions about the methods used for sampling inside and outside MPAs, tagging, the ability to retain sampled fish, and whether they would be allowed to access the data for their own purposes.
- One participant shared they felt they were too new to the port to answer this question adequately, and so scored this question as 'Neutral/Neither.'

Participant Quotes

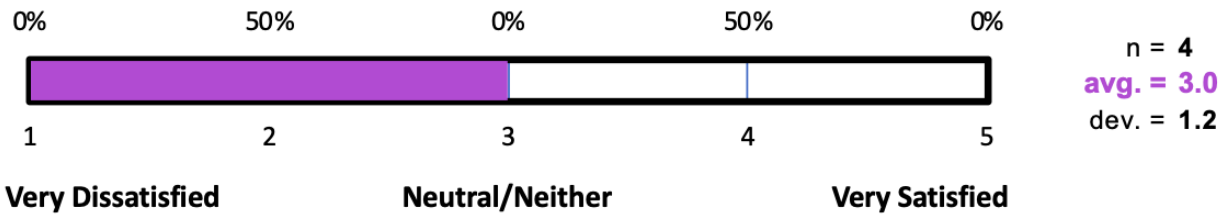
"The CPFV operators are not well organized on the North Coast. So it becomes a very difficult target for the researcher to be able to extend the information to those people [...] So I understand from their perspective the challenge of reaching us, but I have never once, ever, ever seen any information about the data [that] is being collected on MPAs. And the one thing I will say, Humboldt County in particular, the sportsmen are well organized with the Humboldt County Tuna Club. And to not have that information go out through that venue seems relatively egregious to me because that would also reach all of the charter captains. So I have a hard time with coming up with an excuse for the researchers for not extending the data and information that they've collected."

"One thing that's always kind of bothered me a little bit is the [use of] CPFVs for the monitoring. It started out where it was fairly open, where guys would have an opportunity to maybe bid on it to do it. But it's turned into like a one boat show now [...] I don't want to take anything away from the one boat that's doing it because he needs the money. But [...] generally things are put out to bid where other guys like [name redacted] was having a slow time - maybe he could have used a couple of those monitoring trips to go down and make a little bit of extra money and stuff. I haven't seen any opportunity in the last year or so for anybody else to get in and maybe get involved with the monitoring stuff."

"So I was originally asked to give an estimate, and I think it was Humboldt State [University that] was deeply involved in the monitoring and I can't remember if [California] Sea Grant was as well. And so I gave them a price and I did the first few trips, but then it got to the point where I usually was busy. They only wanted to go on nice days and I was already busy. So then another boat started doing it. And I guess what bothered me was at that point, it was just like they were locked into one boat. And I always felt people would have more buy-in for the whole process if they spread a little bit of that love around rather than just having one person do it. [...] I know in almost all government contracting, there's value contracting where it doesn't always have to be the best price. You know, if you have a boat that couldn't accommodate what they're trying to do, then obviously you wouldn't be able to do it. But, you know, everybody should be able to have the opportunity to be involved in [MPA monitoring]. And I haven't seen that the last couple of years."

"So who owns that data that's coming from [MPA monitoring efforts] - the weights, the lengths, everything else? Who owns it and who can gain access to it? Because like for myself, for example, I would love to run some of my own statistics on it to see what it looks like and then maybe even do some little nerdy side projects weighing and measuring fish on my boat, you know, to compare to what they're doing. As just kind of a nerdy scientist on a sports trip for putting fish in the fridge for my wife and I."

15. MPA Enforcement Overall, how satisfied do you think CPFV owner/operators from your region are with the enforcement of MPAs?



Discussion Summary Most participants struggled to answer this question because they have seen very little on-the-water enforcement of MPAs.

- A participant indicated that they have seen one MPA near Fort Bragg regularly enforced, while another one is heavily fished. Despite repeated calls to CDFW of illegal activities, enforcement still does not occur at that MPA.
- One participant explained that MPA boundaries can be hard to decipher since many of the landmarks that were used to establish/define MPA boundaries are now gone. However, fishermen can get GPS coordinates on chart plotters.
- Another participant stated many MPA violations are often done unintentionally when a CPFV does not realize they have crossed an MPA boundary.
- One participant explained that they would score this question differently if they were scoring for themselves rather than the entire North Coast CPFV community. While they are personally dissatisfied with the number of MPA violators and the lack of enforcement, they also know that some individuals do not care that they are fishing in an MPA because they have happy customers and a lot of fish. In other words, the rewards outweigh the risk of MPA enforcement.
- One participant shared they felt they were too new to the port to answer this question adequately, and so scored this question as 'Neutral/Neither.'

Participant Quotes

"I don't know about anybody else, but I have not seen any MPA enforcement, I have seen [the California Department of] Fish and Wildlife a couple of times down in the area where we do rock fishing and stuff. But I don't think I've ever seen them where they need to approach a boat or anything. [...] And personally, I like to see the enforcement. If you're going to have an [MPA], then you might as well make it the best it can be and enforce it and keep people out of there."

"Yeah, as far as Fort Bragg, there is only one area that's really monitored [enforced] and that's the Point Cabrillo [SMR]. Ninety percent of the time, the people that run the lighthouse will call [the California Department of Fish and Wildlife]. A lot of times there's a lot of boats fishing in there and they'll fish there all day and nothing will be done. But the Point Cabrillo [SMR] is the most monitored [enforced]. Other than that, I couldn't tell you about any of the other ones."

"I would prefer if [this question asked,] 'how do you feel about [MPA enforcement]?' Because I would feel very dissatisfied, very dissatisfied about the amount of sport boats and even other businesses that are on the wrong side of the line. But when I think about how I'm supposed to answer this question for the group of CPFV guys when one person makes a very good living on the wrong side of the line... so I guess we're neutral, somewhere in the middle."

16. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants reiterated some thoughts that were expressed during the meeting.

- One participant requested better communication of monitoring results and asked that they be shared broadly and prepared in a manner that is both readable and concise.
- Two participants expressed interest in learning more about the state's 30x30 initiative and its relationship to the MPA network.
 - One participant stated that while they believe the MPAs can be effective, there is not a need to add more at this time.
 - Multiple participants would like managers to look at MPAs and potential impacts from 30x30 from a holistic perspective that considers all fishing restrictions including other state and federal closures like RCAs.

Participant Quotes

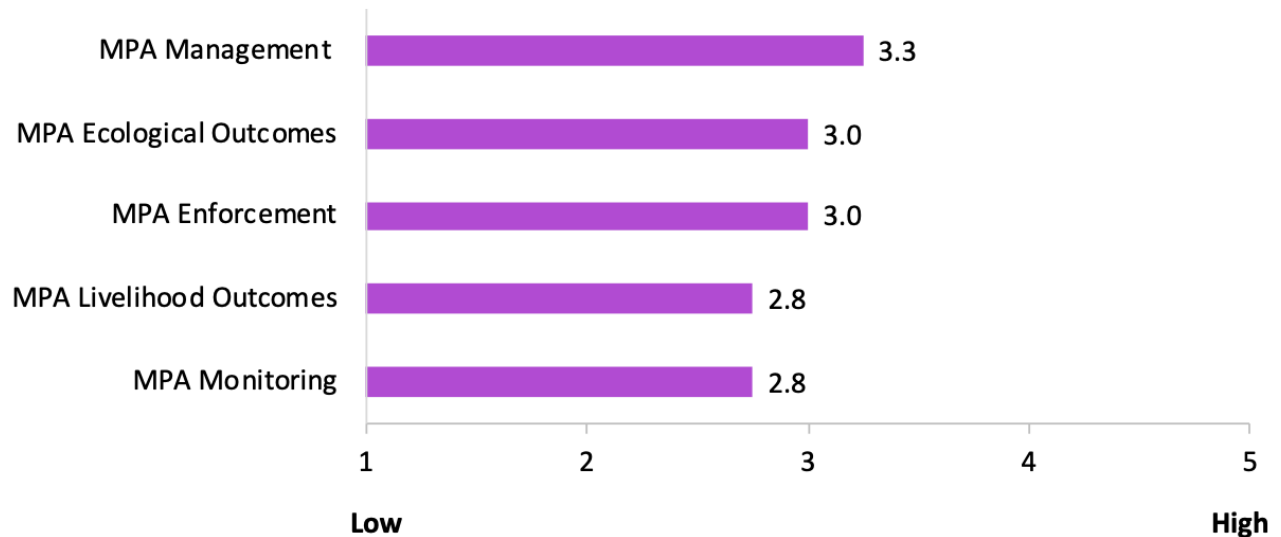
"I would like to see more, especially condensed, versions of the studies because sometimes we don't have time to sit there and pour through a long document, but [rather] just a little brief. I know they can break it down into something that's readable for somebody like me."

"I don't know anything about this 30x30, so I'd like to know more about that [and how it relates to the current MPA network]."

"From the CPFV lens, the current MPAs, in my opinion, are working well and I don't see a need for any more."

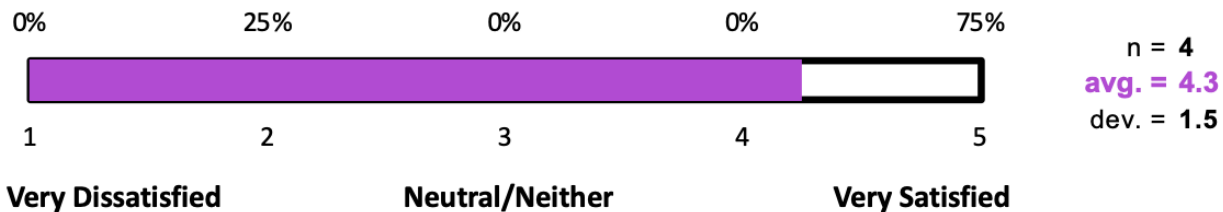
"We've had a [de facto] MPA from being restricted [beyond] 120 feet of water for 20 years. Anything outside of 120 feet of water is [essentially] an MPA. Yeah, we do get 180 [feet] this year. We've lobbied to have deeper water for over ten years. And the [question] for me is [why] restrict just to 120 feet over a golden eye rockfish and not consider the other fish that we've pretty much wiped out. So, yeah, the 120 line has been an MPA for 20 years in Fort Bragg."

Perceptions of MPAs, Average Responses for Questions 10-11a, 13-15



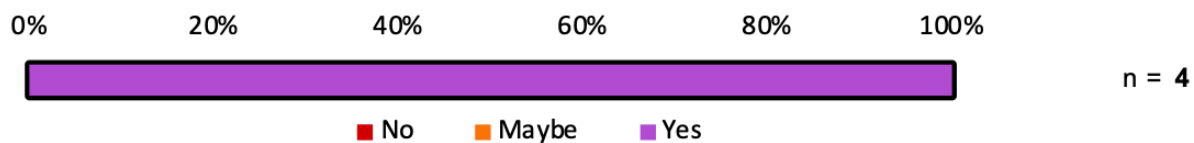
Feedback on Virtual Process

17a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



17b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the purple bar indicates the percent of participants who responded 'Yes' to question 20b. If participants responded 'No' or 'Maybe,' a red or orange bar would appear, respectively.)



17c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Overall, participants were satisfied with the virtual focus group experience and appreciated the discussion with their peers. However, one participant stated that they are tired of virtual meetings and a four hour Zoom was not ideal.

Participant Quotes

"I'm just sick of Zooms. That's all there is to it. It's like, I don't want the state of California to think that I'm happy sitting in this chair for four hours straight from three to seven o'clock at night."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Passenger Fishing Vessel Fishing Communities in Relation to the MPA Network

Members of Bodega Bay Area's Commercial Passenger Fishing Vessel Community

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with commercial fishermen and Commercial Passenger Fishing Vessel (CPFV) owner/operators throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and CPFV fishing communities in California, including impacts from MPAs. A key goal of this study is to convey commercial fishermen's and CPFV owner/operators' perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of CPFV owner/operators were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, income, allocation of resources, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where commercial fishermen and CPFV owner/operators were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Regional CPFV Port Group: Bodega Bay Area Ports

Date: Tuesday, February 10, 2021

Participants: Merlin Kolb, Bob Monckton, Aaron Orsini, Rick Powers

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

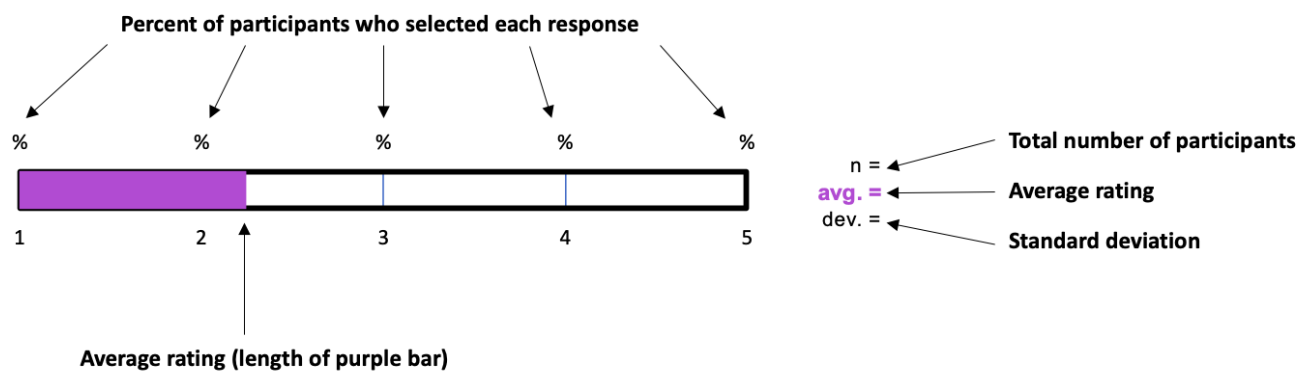
Overview

On February 10, 2021, four CPFV owner/operators out of the Bodega Bay area participated in the twentieth focus group conversation overall/fourth CPFV focus group conversation. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 14 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 13 and 22 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

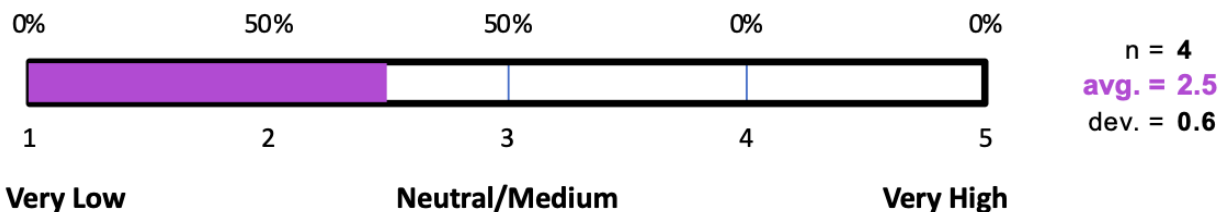
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Central Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas \(2010–2015\), North Central Coast](#)
- [Marine Protected Area Monitoring Program, 2019–2021](#)
 - [The California Collaborative Fisheries Research Program \(CCRFP\)](#)
- Details about tagging studies to monitor MPA effects, including [this lobster tagging study in Southern California](#)

Our Project Team would like to express our appreciation to the four Bodega Bay area CPFV owner/operators—Merlin Kolb, Bob Monckton, Aaron Orsini, and Rick Powers—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resources - Present State Overall, how would you rate the current health and sustainability of the marine resources on which CPFV owner/operators from this region rely?



Discussion Summary Participants reported local marine resource health as neutral to low. One participant said it was difficult to answer this question since resource health varies widely depending on the species.

- Several participants discussed how North Coast fishermen's access to fishing grounds has declined significantly, which has resulted in increased pressure on local marine resources in the remaining open fishing grounds.
 - Several participants emphasized the importance of spreading out fishing effort to avoid overharvesting resources.
- One participant discussed changing habitats (i.e., decreasing kelp forests, decreasing salmon habitat) combined with increased fishing pressure and poor management as a primary concern for the health of some local marine resources.
- One participant expressed that it was difficult to know the current health of local marine resources and that stocks often have natural fluctuations. They stated they didn't trust the science behind stock assessments and were frustrated with the frequent changes to rockfish bag limits.
- One participant explained the North Coast salmon fishery changes each year depending on returns and the overall health of stock, among other factors. They were unsure about the status of the upcoming salmon season.
- One participant believed local lingcod and rockfish populations were very healthy, which they attributed to the closure of deep water habitat at Cordell Bank National Marine Sanctuary that support the spawning biomass.

Participant Quotes

"Over the years, the fishery and the areas that we're able to fish has diminished so greatly on the North Coast. [...] We've been kind of forced into a narrow strip of coastline. [...] We don't have the area that we once had and all the pressure is put into a very, very slim area to be honest with you. [...] I think [the fisheries are doing well] if [fishermen] move around within the

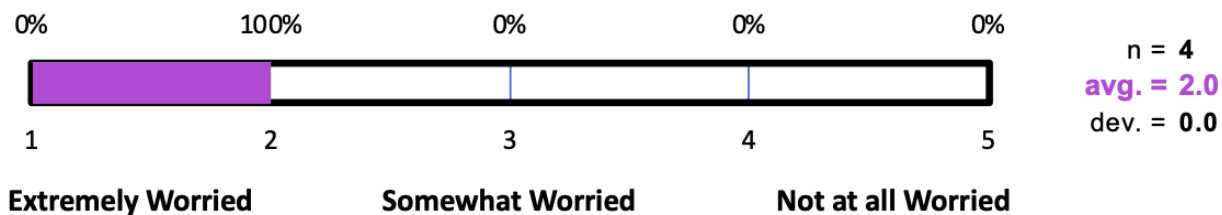
areas that we're allowed to fish and don't fish the same spots all the time. I think [local marine resources are] hanging in there."

"When you look at things like decreasing kelp forests, increasing pressure on some species [...] like, look at salmon. Salmon is somewhat doomed, it's a hard word, but they're having a really hard time in California. And we are likely, in my opinion, to have a restricted or heavily restricted season this year based on numbers of returning fish, but not necessarily reflecting what we're seeing as far as fisheries in the ocean. [...] It matters what species we're talking about. But in general, I think we're looking at decreasing and changing habitats with increasing pressure, which in my opinion, is lower sustainability and is a worry for me."

"It changes every year depending upon returns and the health of the stock. Every year is different. We don't know if we're going to fish salmon [this season] or not, depending upon a lot of different factors."

"Lingcod have probably done much, much better with the [Cordell Bank National Marine Sanctuary] closure because they are deep spawning, or not necessarily spawning deep, but they grow up and move. The biomass moves in and out from deeper water and so they have probably done the best and are maybe the most sustainable species."

2. Marine Resources - Future Concerns Overall, how worried are CPFV owner/operators from your region about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary All participants were moderately worried about the future long-term health and sustainability of the marine resources on which Bodega Bay area CPFV owner/operators rely.

- Several participants expressed concerns about the future health of salmon populations due to poor water management and low river flows, which negatively affect salmon habitat.
 - One participant was hopeful that hatchery efforts could build salmon stocks to sustain a fishery, but believed natural processes would not support natural salmon populations in the future.
- One participant believed North Coast fishermen harvest more biomass than is sustainable for a particular area, though there are some exceptions (i.e., lingcod populations are healthy, and are not being harvested at unsustainable rates).
- One participant was concerned about negative effects on marine resource health from compaction of fishing effort due to area restrictions (i.e., MPAs, Rockfish Conservation Areas (RCAs)), which they worried would contribute to declining fish size and abundance.

Participant Quotes

"I have concerns, great concerns regarding our salmon and what's happening with our tributaries, mainly the water in the water management and how that ends up resulting in the total number of salmon available for us to fish for."

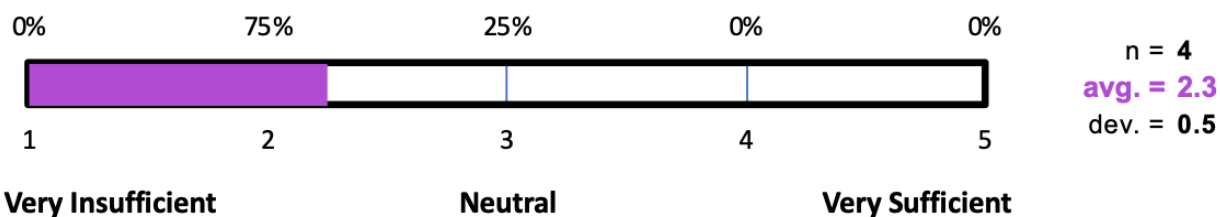
"Building on [the topic of] water management and salmon in California. I mean, not to be pessimistic about it, but I think that's really doomed. The desertification of California is already well under way. I do think that we could stock the [salmon] fishery and maintain a fishery for people in the area. I think that the hatcheries have been very successful in showing that they can really smolt in pens and have decent returns in the ocean for fishing and harvesting. But as far as having the natural process of those fish back, I think all that water is sold well above our pay grade."

"When I was growing up on charter boats, [...] we would stop off [along the coast only] when the weather wasn't good enough to go deeper or when the conditions looked really good there. Now we fish there day-in, day-out [...] we move around some, but it's not at all the same. You know, in my childhood, we used to go to a place called the 'football,' and fish at 600 feet [deep]. We used to go out to Cordell Bank daily. We traveled so much more, looking for the biomass of fish. And currently, I feel that the biomass that we're fishing for, we take a much larger percentage than I think most biologists would consider a sustainable rate. And, you know, there's exceptions to that, like lingcod, [which are doing well, following the closures]."

"We're forced into a small area. There's more and more pressure every year and that's what's got us all concerned. And if you're pounding the same area day after day, even though you can move around. [...] I've been fishing out of Bodega for 39 years and the fish have gotten smaller. And I'm not going to say there's more fish. I think the overall populations have diminished and the size has dropped significantly in the area that we're forced to fish. Now we use rock cod as our main staple, but I have to tell you, it's not the main draw from a business standpoint. Salmon is probably very important. But probably the biggest draw right now, believe it or not, is Dungeness crab. So the dynamics of our industry has changed significantly over the years."

Well-Being, Economic

3. Income from Fishing Overall, how would you rate the income that CPFV owner/operators (including crew) from your port earn from fishing to support livelihoods?



Discussion Summary Participants reported income from fishing as insufficient or neutral due to seasonal closures, declining customer base, and high costs of living. They stated these factors have

created shifts in port dynamics, including changes in the port's primary fisheries and a reduction in the number of full-time charter boats.

- Participants shared that most large charter businesses left the port of Bodega Bay due to limited income opportunities, and the remaining smaller six-pack operations are struggling.
 - One participant noted changes to Bodega Bay's port composition, explaining there has been a shift in target CPFV fisheries out of Bodega Bay from salmon to Dungeness crab. They also said vessels are generally smaller now than they have been historically.
 - One participant said new entrants in the six-pack fleet need additional sources of income due to high living costs. They said six-pack operators do not generate income during the winter, as regulations mandate a three-month seasonal closure, which limits their overall yearly income.
 - One participant shared that they alternate between operating their charter business and commercial fishing for Dungeness crab to diversify their revenue.
 - One participant also noted that the advent of the internet has made it so customers can be more selective about where they fish such that boats aren't sold out at the beginning of salmon season like they used to be.

Participant Quotes

"I did select neutral, but the only reason I was able to select that was because I fished almost every day the weather was fair enough to go out. I had an excellent year this year, but a lot of that is just the luck of the draw. Last January 1st, I lost an engine in my boat. If that had happened July 1st, it would be devastating [and my] answer would be different. So I do agree that it's insufficient, the only reason I was able to reference it as neutral is because of all the days I had on the water this year. If you had that breakdown in the middle of the season, that's disastrous when it comes to your income. [...] It's pretty difficult. If everything goes right, you might be able to support yourself, but it's questionable at best."

"I have to work side jobs and do other stuff. As much as I love charter boats and I've dedicated my life to it, it doesn't earn me enough income to live in this area. You spend the winter getting things ready for the summer, but even then it's just difficult. My goal is to be financially able to do this as a career [which means I need] the ability to have more days on the water. Once the season's over, we're closed by regulation for three months at least, and the regulations certainly make it difficult for other ones besides those three months as well. It's not really a viable option for charter boats in those three months, most years."

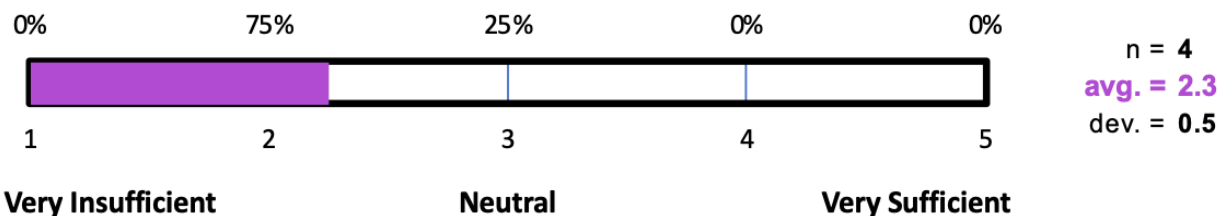
"I fish charter as much as I want to, I've knocked it down probably 40 percent [compared to how often I used to run my charter operation]. It's like 80, 90 days a year now. I also commercial crab during the winter. So I shut my charter boat operation down usually before the commercial crab season starts. That's what I want to do. After the summer, I'm done with people."

"When I first came to Bodega Bay almost 40 years ago, there was close to 20 certified boats, large boats. I happen to have the last two certified boats left and I [originally] had a fleet of three certified vessels. And when I say certified, I'm not talking about six-passenger vessels. I'm talking about boats that carry more than six. I got rid of two boats and I added another boat here, but we really don't use the other vessel for fishing, we use it mainly for mass gatherings at

sea and short bay cruises. [...] But the income is very limited and opportunities are dwindling. That's why guys have gotten out of the business. It's a labor of love. Nobody is going to get rich running a charter boat, whether he operates it or owns it, and just the fact that all these guys have come and gone, that it doesn't speak well for [the income] that guys are able to make in this business. And with opportunities dwindling and the fact that we don't ever really see any [fishing grounds] opening up, even though deeper water sounds great, but we have no structure around that area [to create fishing opportunities]. So, I mean, until there's more opportunity, the income is insufficient for most people."

"We see a fair number of six-pack operators coming into the business, but a lot of these guys have done something else to make a living, and maybe they are retired now. Great way to take your friends out fishing and establish a business, but not when you're doing it for your sole income. To watch all these boats disappear over the years, there's a reason for that. Nobody is having a boat built, you know, a large boat because it's pretty much cost restrictive. And we're facing so many things right now. We've got some things coming up with crabs, which happens to be the most important, biggest draw we have out of Bodega Bay now. It used to be salmon many years ago. On opening day of salmon season, for years and years, you couldn't get a spot on a boat. That's not the case anymore with the advent of the internet. People choose where they're going to fish from. They wait to see what the catch is. We're losing that. Everything has changed. We're not seeing new participants. People can't buy a boat and get into this business. It's a major investment, and you really don't make anything until your boat is paid for."

4. Allocation of Resources Overall, how would you rate the allocation of fish resources for CPFV fisheries in terms of supporting the CPFV industry?



Discussion Summary Several participants reported insufficient allocation of fish resources to support Bodega Bay area CPFV operations, which they specifically attributed to recent changes to recreational Dungeness crab trap allocations. One participant reported allocation of resources as neutral.

- Several participants described how the recently updated Dungeness crab trap allocations for the recreational industry are significantly smaller than allocations for the commercial industry. They noted the challenges of CPFVs being binned in similar categories as recreational fishermen even though they are a business operation that relies on these trap allocations to make a living. They also noted the smaller proportion of catch of CPFVs in relation to commercial catch. They believed these allocation changes will negatively affect local CPFV businesses since customers come specifically to target Dungeness crabs.
- One participant believed area closures, rather than specific resource allocations, created negative effects for local CPFV operations since area closures affect the fleet's ability to spread out effort and avoid overharvest.

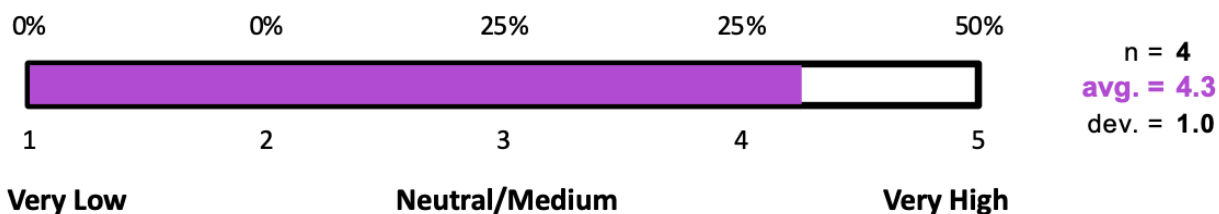
Participant Quotes

"The economic implications regarding the new Dungeness crab regulations, [California Department of] Fish and Wildlife said that there was not going to be any adverse economic impact on our [CPFV] operations. But I have to disagree, simply because they said that we could turn to other fisheries. Well, we do have rock cod that's open that time of the year. But the problem is people [CPFV and charter boat customers] don't come during November and December to catch rock[fish] or lingcod. They come to catch crabs. And so there will be a major adverse impact economically to our vessels."

"One thing we haven't touched on is this equity thing. [...] The reason I'm keying in on the word equity is that [the commercial crab industry has] 171,000 crab pots. And once commercial season starts, our sport crabbing is over because there's so much [commercial] take involved. Our number of sport crab pots, it's less than 2,000 total. So 2,000 versus 171,000, and then they want to put more restrictions on us. It takes one pot [...] to shut down our fishery [if an entanglement involving a crab trap occurs]."

"The allocation is really the [area] we have to fish. You look at places like Cordell Bank and the 'football,' or out deep where we might fish, [they are] closed down in response to crashes of fisheries, which were mainly due to large commercial operations, primarily draggers. The allocation looks weird from here. We're talking major shutdowns 20 years ago, and it's hard to quantify that. [...] Every year, every regulation, it takes away a little bit more, and what it takes away is [...] the ability to spread out, which is what keeps us from overfishing a specific area."

5. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your region's CPFV fishing operations?*



Discussion Summary While COVID-19 had mixed impacts on participants' businesses, participants generally reported COVID-19 was disruptive and changed the way Bodega Bay area CPFV businesses operate.

- One participant said the CPFV fishing season was delayed by three months due to COVID-19 state- and county-imposed business closures.
 - One participant described an innovative marketing strategy that kept their business running during the initial COVID-19 business closure where customers pre-paid for fishing trips prior to COVID-19 restrictions being lifted to secure a spot.
- One participant acknowledged the mixed effects of COVID-19 on the CPFV industry, and suggested one positive effect from COVID-19 was customers staying close to home and investing in local activities rather than traveling abroad.
- One participant hoped fisheries managers would consider the shortened fishing season as a result of COVID-19, and provide more fishing opportunities due to decreased fishing effort during that time.

Participant Quotes

"We raised the price a little bit. Ran lighter loads. It didn't compensate for the full normal year deal. And then for the family groups, we did a regular deal, but people were scared at the beginning. A lot of people were scared. We didn't get going until middle of June almost, usually we start in April, so there's three months right there. We all felt it."

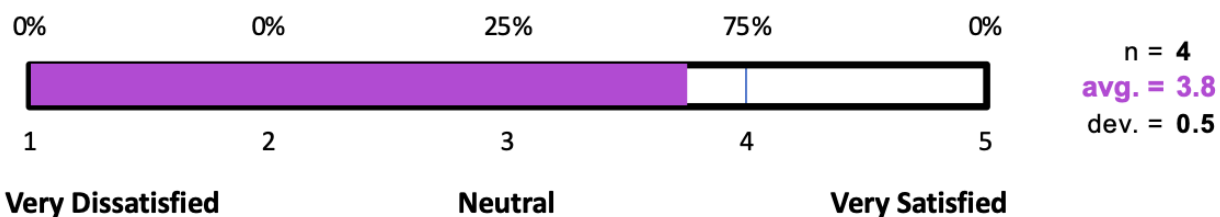
"Lucky is the right word. We could have been eliminated just by one small phrase that was in the governor's mandate or the county's follow-through with the mandate. We're very lucky that we were able to operate. And if it weren't for some of my customers early in the season, we might not have been able to start. I did a campaign where I asked customers to purchase tickets in advance while we were closed, and that was really successful. But without their support, we probably wouldn't have fished last season because you can't do anything if you can't buy your first tank of fuel."

"Yeah, I chose high impact because I don't think there's a way to look at it where COVID-19 hasn't impacted the industry in huge ways all over the board. I mean, yeah, there's a couple of positives. People are traveling out-of-country less, so they want to go do things nearby more, but it's a lot of impact."

"I'm hoping that part of the management process considers the fact that because everybody has operated at reduced levels [due to COVID-19]. [...] And I'm hoping that we get more time on the ocean because the effort has dropped considerably. When you start talking about numbers of people on our boats, it's far less. And hopefully that enters into the management process and creates more opportunity."

Well-Being, Social/Political

6. Job Satisfaction Overall, how satisfied do you think CPFV owner/operators from the region are with their jobs?



Discussion Summary Participants reported they were generally satisfied with their jobs because they love fishing and being on the water, though several participants expressed some dissatisfaction due to stress and lack of job security.

- One participant acknowledged that the CPFV industry has its challenges, but was overall satisfied and enjoyed the work involved in operating a CPFV/charter business.
- Several participants expressed feeling fulfilled by working on the ocean and with their clientele.

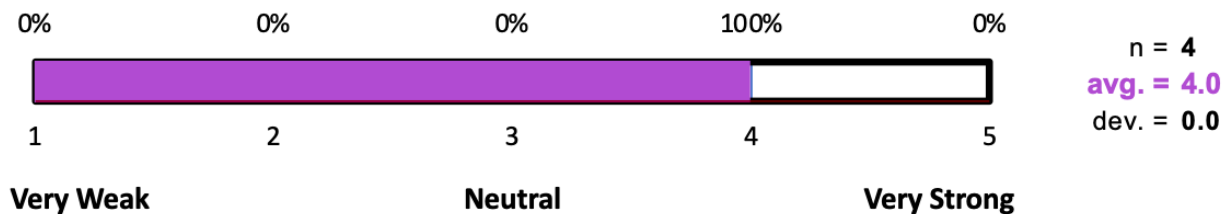
Participant Quotes

"I feel both dissatisfied and very satisfied with my job on the water. I love my job. I wouldn't want to be anywhere else. My sense of job security is not super high and my level of stress is pretty high. But the positives are fantastic. I left another industry to come and try and do this, so I love it. I absolutely love it, which is great on the fulfillment side of things, but it's hard to say, taking in all those factors."

"I [am satisfied] because I get paid to fish every day. That's pretty satisfying to me. I know there's problems and we all want it to be better than it is right now. But I'll tell you what, fishing every day to make your living is pretty good. I've had a lot of different jobs and fishing is pretty much the funnest job I ever had."

"It's definitely a labor of love. I do think that there is a certain amount of stress. I think the stress level has grown over the years simply because I think our clientele has changed. [...] They have access to a lot of information on the computer and they just don't realize how fishing really is and how it's related to conditions. But it is a labor of love. We all do it because we love it."

7. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) among CPFV owner/operators in your region?



Discussion Summary All participants rated the strength of relationships among Bodega Bay area CPFV owner/operators as strong. They said local CPFV owner/operators get along well and work together toward common interests.

- One participant believed there is healthy competition between CPFV owner/operators, yet when anyone asks for help, including tips about where the fish are biting, the group is responsive and supportive.
- Participants identified one person in particular who plays a leadership role in the port and does a good job representing the interests of Bodega Bay area CPFV owner/operators as well as making sure owners/operators are aware of upcoming issues. Several participants expressed appreciation for this leader.

Participant Quotes

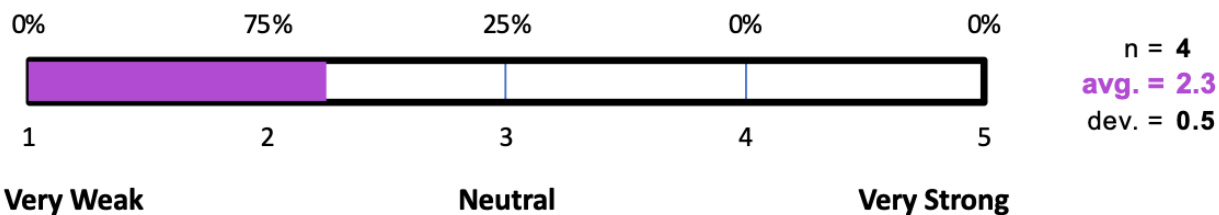
"Everybody seems to get along really well, although, you know, we all compete amongst ourselves. I believe that it's healthy competition and everybody works together and we all share common interests. There's competition on a daily basis, but it's all friendly. And we've got a bunch of great guys that get along well. So we're lucky in that respect."

"It's a very strong group that we have in Bodega. And I know people that have complimented us as a unit. I'm talking about clients that are impressed by our level of communication. And if I'm

out on the water and I need something, whether it's pointers on a spot, how they're biting or other things like a mechanical issue on the boat or even dynamics with clients on the boat, I feel that all of our group is really, really responsive to people when they reach out and ask for some support. I couldn't read it any differently than strong in that one."

"During a particular gathering [related to an upcoming management decision], [port leader's name redacted] called us in and let all of us know that there was an important issue that we had to get together and talk about. And I really appreciate [them] for doing that. [They] let us know that we needed to gather up and [...] get unified before we get steamrolled."

8. Social Relationships - External Overall, how would you rate the strength of relationships between CPFV owner/operators in your region and external groups who could help support industry needs?



Discussion Summary Several participants reported weak relationships between Bodega Bay area CPFV owner/operators and external groups, while one participant rated these relationships as neutral. Participants specifically spoke to the challenging relationship dynamics between the local CPFV/charter fleet and the California Department of Fish and Wildlife (CDFW) and Fish and Game Commission (FGC) related to the decision making process about Dungeness crab trap allocations (see the *Allocation of Resources Discussion Summary* on page 7 for more detail).

- Participants discussed their desire for improved communications by CDFW and FGC to the CPFV fleet. They described a recent situation when FGC updated the regulations for the CPFV crab fishery, related to the reduction of marine life entanglements, and included CPFV businesses with the recreational fishery rather than the commercial fishery. Participants explained that they identify as commercial businesses and wish to be regulated separately from private recreational fishermen. They felt blindsided by the change and frustrated by the lack of transparency and outreach efforts to the CPFV fleet by FGC leading up to the decision. They made suggestions for their desired communication methods, including post mail and email.

Participant Quotes

"I really think it's important that the regulatory agencies that oversee our operations need to reach out to us a little better. [...] But I have to tell you that there were a few brief scoping sessions and we attended those and we were led to believe that it was just regarding recreational crabbing, not CPFVs. And in the process, we lost our commercial designation. We got moved from one section to another and were included with the recreational changes. So this is a valid concern because we don't feel like that process was real transparent from the start. We are businesses, we are registered commercial passenger fishing vessels."

"We all operate businesses, we all have an address, things can be mailed to us with snail mail, we all have emails. There was no notification of any of that crab regulation stuff to us. [...] We were blindsided because the state was trying to push that thing through under the radar, they

kept it kind of quiet. This happened at a [Fish and Game] Commission Zoom meeting. It's really easy to make a rule change that's somewhat controversial on a Zoom call."

Well-Being, Overall/Additional Comments

9. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's CPFV fisheries?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants discussed several concerns and challenges related to existing and potential future management restrictions.

- Participants discussed the compounding impacts of many existing management restrictions (i.e., MPAs, RCAs, Cordell Bank National Marine Sanctuary) which have vastly reduced their fishing grounds.
- Several participants shared their concerns about Assembly Bill 3030 and the potential negative effects to their businesses from additional area closures.
- One participant discussed the increasingly challenging regulatory landscape and financial outlook for CPFV/charter owner/operators, including an emissions reduction proposal by the California Air Resources Board (CARB) they believed has potential to greatly affect the financial viability of CPFV/charter operations.

Participant Quotes

"The MPAs closed a significant, significant amount of area from Point Reyes north to Salt Point. And now we're hearing about this [Assembly Bill] 3030, where they're going to take 30 percent. There's not going to be any ground left."

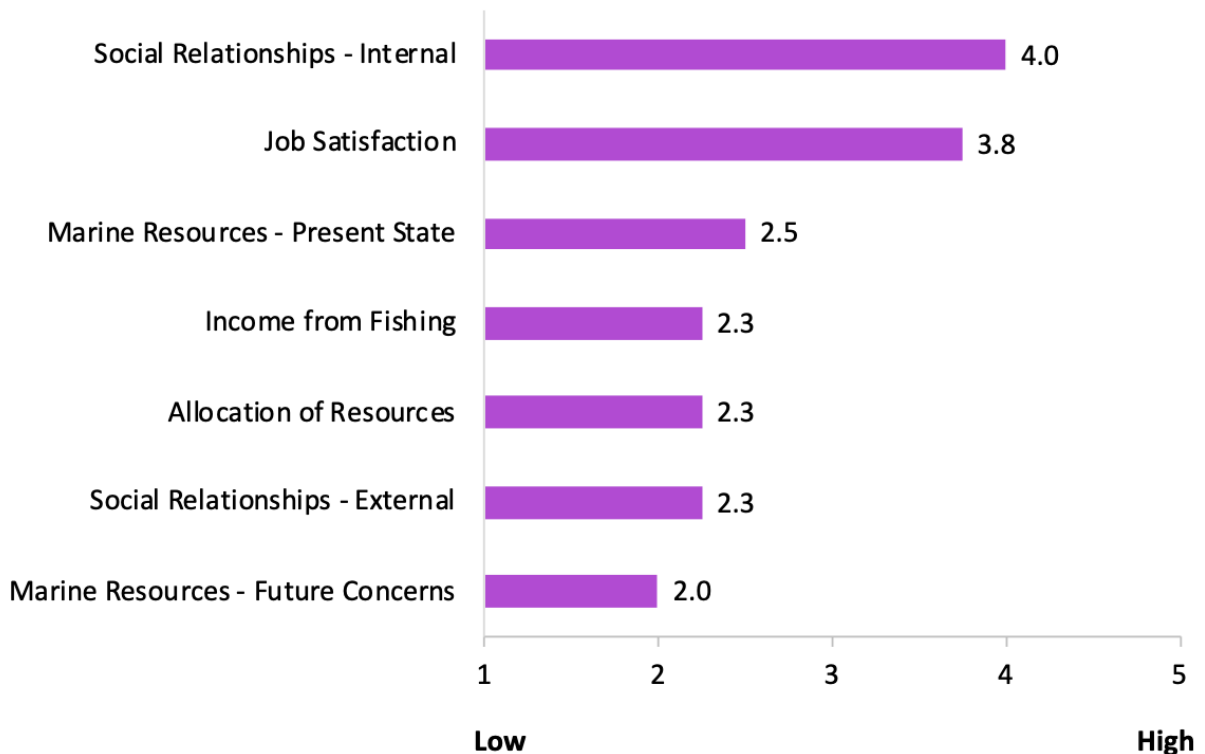
"If you look at Bodega Bay, the area that the charter boats normally fish is typically from Point Reyes north to Salt Point. Sometimes the guys would go further north and a few of us once in a while go a little bit south. [...] We just don't have that much ground and we've been pushed into shallow water in the same area for many years. We have no access to anything offshore. The reef that's outside of Cordell Banks, [...] the RCA from 240 to 900 feet [...]. The fact we're losing ground every year scares everyone because we just don't have that much area to fish. [...] Even though depths [where we can fish] are increasing with new regulation changes next year, and there's more water to the south of us, we don't benefit from that. There is no structure out there. So we're in a bit of a dilemma, and it's got me very concerned about the future of our area and where we can fish."

"But when I say an industry under siege, I'm not just talking about from a fisheries related aspect. Here's another example. We have CARB, which is California Air Resources Board. [The Golden Gate Fishermen's Association and Sportfishing Association of California have] been working along with CARB, trying to figure out how we're going to deal with a new proposal that they have to implement tier four engines on our vessels. Well, it turns out that none of the

engine companies are presently building tier four engines. They're very hot, and our boats really won't accommodate those engines even if they were available. And so we just went through a meeting here the other day, [...] and the whole meeting was directed at our income and projected ticket sales and capacity of vessels. They were trying to figure out what can the industry bear which would allow them to get to their desired [outcome,] less emissions and cleaner running engines in our vessels. And basically, what it came down to was new vessel replacement. And most of our boats, at least certified vessels, have gone through generations of families. It's not uncommon for a family to have a boat for 30 or 40 years. Replacing a vessel is cost restrictive. [...] The question we were asked at the end of the conversation was 'well, if there were a six-year implementation date, would that give you enough time to build up enough for a down payment on a new vessel?' There are so many things that can affect our income. It's really not a pretty picture."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-4, 6-8

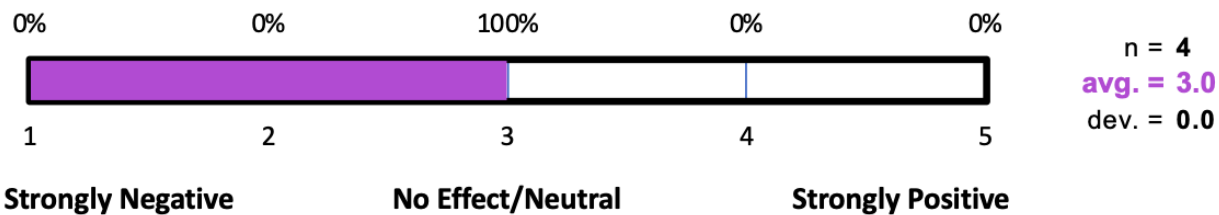
(Note: The following figure does not include the average rating for question 5. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

10. MPA Ecological Outcomes How would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary When asked about ecological effects from the MPA network on local marine resource health, all participants scored no effect/neutral. They shared examples of positive, negative, and neutral effects from MPAs on local marine resources.

- Several participants specified they have not experienced positive MPA effects (i.e., spillover of target species). However, they believe there is a positive effect from MPAs on rockfish, but these fish do not travel outside the MPAs and are inaccessible to fishermen.
 - Several participants discussed the healthy local lingcod population, and one participant suggested the high lingcod abundance is due to the Cordell Bank National Marine Sanctuary rather than the California state MPA network.
 - One participant did not believe MPAs positively affect salmon populations.
- One participant said along the coast near Bodega Bay, the size and abundance of their target species is decreasing in the open areas because of increasing fishing pressure, though they did not directly attribute a cause for this.
- One participant believed local MPAs have indirectly negatively affected the local kelp forest ecosystem that local CPFV/charter operators rely on. They explained the MPA network essentially destroyed the commercial urchin industry due to the closure of traditional nearshore commercial urchin fishing areas, and when fishing pressure decreased, the urchin population exploded and upset the ecological balance, with kelp and abalone populations suffering as a result.

Participant Quotes

“No, I mean, there was no [change to the marine resources]. Other than we can't fish there, that's all.”

“I'd like to know if the MPAs are working, I really don't see any significant change. I think overall populations [outside the MPAs] are decreasing because the pressure is increasing. I know that the size is diminishing at least up and down near coastal areas, which is the area that we fish. [...] I'd like to say that MPAs are very successful, but I think school's out on that issue. I really can't tell the difference myself.”

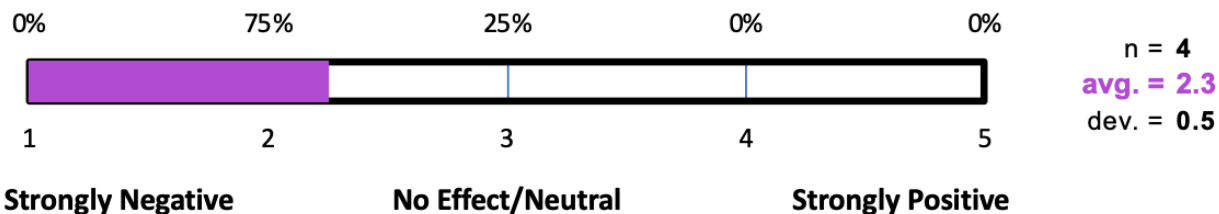
“Has it had an effect on the marine resource? Yeah, yeah, it definitely has, I don't think you could argue that. Has it had an effect on the marine resource that I get to fish? I don't know

how you would measure that. I don't personally see it. [...] For the area inside the MPA, it's great for those fish. You look at black rockfish, [or] large vermilion rockfish that are like 50 years old or something like that. It's likely to have much [more] older rockfish in those areas specifically."

"Nature has a funny way of knowing its boundaries, and I do think that the fish are larger in these protected areas and it seems the population is much higher. But I don't know about [fish] filtering out and that type of thing."

"The MPAs have devastated the commercial urchin fishery. When the MPAs went into place - they're basically nearshore, which is exactly where the urchins are at - that's one of the reasons that [urchin populations] have exploded so much and have eaten the kelp forest and had a negative impact on the ecosystem and the abalone. That's not the only reason the abalone are in trouble, but it was a huge reason maybe no one thought about, that if they [close] the best urchin diving spot on the North Coast, a series of spots, not just one spot, almost all of them, then you're going to kill the industry. [And that will] enable the urchin to have less pressure and maybe upset the balance that was found before. I'm not saying that's the only reason at all why we're struggling with kelp forest and abalone, but it could be one reason. The kelp forest is part of the ecosystem that our nearshore rockfish thrive in, which [charter operators] depend on."

11a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for CPFV owner/operators from your region to earn a living?



Discussion Summary Please see the **Discussion Summary** following question 11b. *MPA Effects - Overall* which summarizes the conversations related to questions 11a and 11b.

11b. MPA Effects - Overall What other types of effects or impacts have CPFV owner/operators from your region experienced from MPA implementation?

Discussion Summary Three participants reported MPA effects on local CPFV owner/operators' livelihoods as negative, while one participant scored these effects as no effect/neutral. Participants discussed various negative effects resulting from the restriction of their fishing area by the MPA network.

- Several participants mentioned the need to travel further distances to travel around MPAs to open fishing grounds, resulting in higher fuel costs and less fishing time for clients.
 - One participant said the MPA network has decreased their ability to take multiple trips per day because of the increased travel time.
- One participant said crowding of fishing effort around MPA boundaries can scare away target fish from entering the open fishing areas.
- One participant said MPAs decreased their options for fishing grounds in inclement weather.

- One participant was frustrated about the restriction on salmon trolling in local MPAs, which negatively affects their business with no obvious benefits.
- One participant explained that while MPAs do affect their businesses, CPFV operators overcome the challenges associated with MPA effects by innovating solutions.

Participant Quotes

“You definitely have to use a lot more fuel to move around more because you've got to drive around the [MPAs] so that you can fish. So that's why I wrote negative. I mean, [clients] don't like the ride to be that long, a shorter ride is better, more preferable. And then [more] fuel, you know, [means] less profit. I have to burn more fuel per day per trip.”

“[The MPA network] certainly affects your ability to take multiple trips in a day.”

“I think everybody would acknowledge it has an effect on the business, but one thing charter boat operators are very good at doing is working around obstacles or conditions. [...] And that's not to say that it doesn't have an impact. It's just to say that we've managed to mitigate that impact by doing something else. But the impact that it does have is restricting the overall area that we can fish.”

MPAs, Discussion of Specific MPAs

12. MPA Effects - MPA Specific Which MPAs have had the most impact on CPFV owner/operators from your region and why?

Discussion Summary Participants shared that MPAs in their area have restricted much of their fishing grounds. They said Bodega Head State Marine Reserve (SMR) and State Marine Conservation Area (SMCA) and Stewarts Point SMR and SMCA have created the most negative effects for local CPFV/charter operations.

- **Bodega Head SMR and Bodega Head SMCA:** Several participants discussed the historical importance of these fishing grounds for the local CPFV/charter fleet due to their proximity to port. They said these closures prevent operators from making multiple fishing trips in a day. Several participants discussed the crowded conditions (due to both charter and private sport boats) along MPA boundaries, which they call the ‘fence.’ They explained the crowds can scare away fish and create compaction issues and safety risks on foggy days. One participant understood the value of closing this area to rockfish fishing, but did not understand the value of closing this area to salmon fishing. One participant said since salmon trolling isn’t allowed here, this MPA greatly affects their business in general.
- **Stewarts Point SMR and Stewarts Point SMCA:** Several participants said these MPAs closed historically important fishing grounds to the local fleet, where there is a large area of good bottom structure.
- **Point Reyes SMR and Point Reyes SMCA:** Participants reported these MPAs have smaller but still substantial effects on local CPFV/charter businesses compared to the Stewarts Point and Bodega Head MPAs. They stated CPFV operators used to make multiple trips in a day to these areas.
- **Russian River SMCA:** One participant said this was a good fishing area for rockfish, including black rockfish.

- *Various Farallon Island MPAs:* One participant said local CPFV/charter operators did not fish at the Farallon Islands before the MPAs were implemented. Several participants anticipated they would shift their effort to fish near Fanny Shoals more often, once anticipated regulatory changes open deeper water fishing.

Participant Quotes

"[Bodega Head/the 'fence'] gets very crowded when the fish are [there] and people ask 'why do they congregate in that corner?' Well, they're not congregating on that corner, we're on the edge of them on the reef [and] they're all the way across the reef, but we just can't go on there and fish for them. So it gets very crowded when the bait and the fish are on that reef right there. We've seen times when 200 boats [both sport boats and charter boats] have been right there in that one square mile. You know, it gets ridiculous if the fish are in there. We're sporty magnets anyways, but that's beside the point."

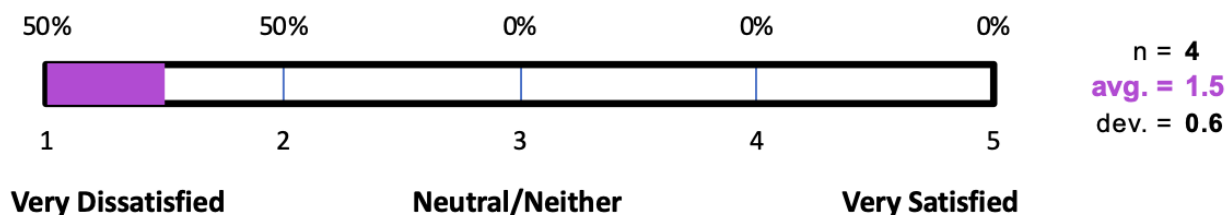
"[If Bodega Head MPAs were opened up,] it would decompress the fleet more. Instead of everybody congregating along the fence in foggy conditions, people could spread out more, you know? Yeah, because the end result is that people will press their luck rather than spread out. So because there's a fence through GPS marking, they'll just wad up in there. Doesn't matter if it's foggy or not. They'll take the risk. And I'm talking about all boats, charter boats and sport boats. They'll accept the risk rather than mitigate it if the fish are there."

"That Stewarts Point [SMR and SMCA] was one of the larger areas that we had coastally [for] fishing. And I'm just talking square miles of structure. Stewarts Point covered as much good area for fishing as anywhere that we have to fish. It's probably half again as much area to fish for bottom fish as anywhere else we [can fish] currently."

"The Point Reyes [SMR and SMCA] one encompasses a bunch of grounds. [...] I know a lot of guys end up fishing right next to that fence, myself included, down in Point Reyes on the north side of the closures. But I would say that's a much smaller effect business-wise than the Bodega Head or the Stewarts Point closed areas."

MPAs, Management

13. MPA Management Overall, how satisfied do you think CPFV owner/operators from your region are with the management of the MPA network?



Discussion Summary Participants were generally dissatisfied with the management of the MPA network. Several participants said they weren't aware of any active management of the MPA

network and hadn't received communications about ongoing management efforts. Several participants wished to be meaningfully involved in MPA management throughout the process.

- Several participants felt fishermen's input is not meaningfully considered in management processes nor valued by fisheries managers, which creates bitterness around management processes and outcomes. One participant attributed their dissatisfaction with MPA management to poor communication by managers, which creates distrust in the management process overall.
- One participant discussed the MPA implementation process and felt betrayed when MPAs were designated in areas local fishermen said were important fishing grounds.
- One participant believed California fishermen coastwide desire a management system with rotating closures.

Participant Quotes

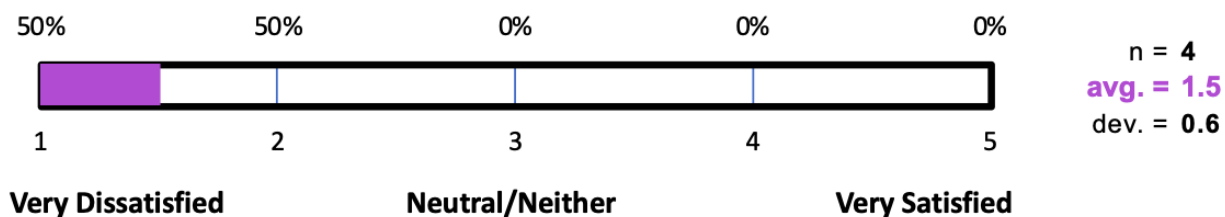
"We very much care about the management of the resources. The bitterness is because we disagree with the management and we're not included in it."

"A lot of my personal dissatisfaction is from the dissemination of knowledge about them. That has a long standing negative history, so that can be hard to say, even if they were talking more about how they were managing it or why they're making the choices they were making, it would be hard to put much faith that they would take our input into account."

"Fishermen do need to be an integral part of the management process [...] I'll bet you every single [focus group for this study] when it comes to MPAs would mention rotating these closed areas. We're not marine biologists, we're not oceanographers, we're fishermen, but we're on the grounds daily and we look at it from a fishermen's perspective. But we do know what lives where, because we have to know. [...] Being a fisherman, why would you keep one area closed? That's why I have these questions about the MPAs. Who knows whether they're really working or not? Prudent management to me would be: you close an area for a while, and then you open it and close another area. Doesn't this come up in every conversation up and down the coast?"

"When they came to put in the MPAs, [...] they asked 'well, where do you like to fish,' where it would be closed down and all that stuff. And overwhelmingly, one of the answers was 'well, one of the very best places to fish at Bodega Bay is Bodega Head.' And one of the very first things that happened is they closed that exact spot. That didn't create really good will. And so it has taken 20 years before groups like yours are able to come along and start up that dialogue again, because a lot of fishermen felt betrayed for lack of a better word."

14. MPA Monitoring Overall, how satisfied do you think CPFV owner/operators from your region are with the monitoring of the MPA network?



Discussion Summary Participants were generally dissatisfied with the monitoring of the MPA network. They said the CPFV/charter fishing community wants to be involved in the design and implementation of monitoring studies. They also discussed managers' poor communication of monitoring study results.

- Some participants had been marginally involved in past monitoring work, and were frustrated about the design, implementation, and reporting of results from MPA monitoring studies.
 - Several participants were frustrated that researchers who are unfamiliar with the local area were conducting MPA monitoring studies.
 - Several participants were frustrated about sampling locations and techniques for monitoring studies. One participant was concerned that researchers rather than fishermen choose fishing techniques for monitoring studies. They believed the maps used by researchers for study site selection might not include all of the small reef structure and rock outcroppings outside MPAs, and they were concerned that such study results would show low fish abundance outside MPAs and high abundance inside MPAs, and would be interpreted to support increasing the size and number of MPAs.
 - One participant wished to know about monitoring study results but did not know where to find them and had not received communication about results from managers.
- One participant mentioned it was difficult for them to participate in summertime monitoring studies due to scheduling conflicts with their charter operation.

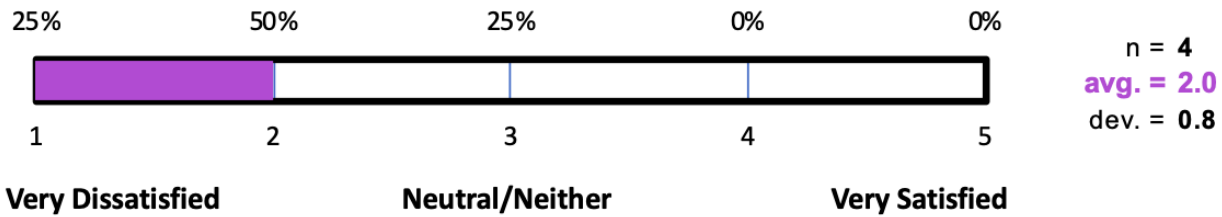
Participant Quotes

“They need to do a much better job on sharing the results because I've never really seen them. Yeah, I've heard of the trends, but where is that? Where are the results? Where do they publish them and who do they share them with, the results of the samples?”

“We want to be part of [the monitoring process], part of all of it. The whole process. The whole process.”

“So I have a concern about the MPA monitoring program. In our area, they're doing significant studies in the MPAs, as they are all up and down the coast. [...] I did some of this [MPA monitoring] stuff in its early stages, I wasn't able to [continue participating] because it's in the middle of the summer and we're just too busy to take part in that monitoring process. And [now] we have a boat that comes from out of the area and he's not real familiar with the area. [...] If you've got somebody from out of the area trying to fish just outside an MPA, a lot of times that person might not even know what's available around that MPA. So I kind of question the monitoring program. And I'm sure some of the results from the monitoring program are available. But in our area, it's not reflective of people that are familiar with local knowledge.”

15. MPA Enforcement Overall, how satisfied do you think CPFV owner/operators from your region are with the enforcement of MPAs?



Discussion Summary Participants were dissatisfied with MPA enforcement and discussed CDFW's limitations in local enforcement efforts.

- Several participants were not aware of local MPA enforcement efforts, and one participant said they heard about one instance of an undercover enforcement boat in the area.
- One participant believed CPFV/charter operators are more actively enforcing illegal fishing in MPAs than CDFW wardens. They said while at sea, CPFV/charter operators approach other boats fishing illegally in MPAs and confront those vessels by informing them about the MPA boundaries. Since CPFV/charter operators are already making contact with folks who are fishing illegally in MPAs, the participant suggested that managers should include charter boats in an official capacity for MPA regulatory information dissemination.
- Another participant perceived most violators weren't purposely fishing in an MPA, but were ignorant of MPA boundaries.
- One participant believed CDFW adequately communicated information about MPAs to the public. They also acknowledged CDFW's limited resources and capacity to enforce MPAs, and said CPFV/charter operators try to help when possible.
- One participant was frustrated that CDFW does not have capacity to enforce MPA regulations.
- One participant believed CDFW's MPA maps had improved recently.

Participant Quotes

"I haven't seen a lot of enforcement myself. [...] Maybe I've missed them, but other than hearing about some undercover boats, catching people fishing in the closed zone, I don't remember really seeing very many people doing enforcement, especially on big days like season opener."

"I think we [CPFV/charter operators] do more enforcing than the CDFW enforcement does. We kick people off and we educate them 'hey, you're in an MPA.' We're the ones that run them out of there. [...] I don't know if the people really don't know, they don't care, or what it is, but there's constantly people in the [MPAs]. So there's a lot of self enforcement. [And] the self enforcement kind of goes along with the comment that we heard earlier, why not use the charters to help educate on things?"

"I think [CDFW] did an adequate job trying to get the word out to the public. They had numerous handouts, they had charts, I think that they did as good as they could do to try and get the word out. The information is there. I don't think that most of the people [illegally fishing in MPAs] are trying to access a closed area, I really don't, I think it's just ignorance. There's not a [CDFW] vessel in every harbor, and they have limited resources and they only have the ability to

enforce certain areas at a time. So we do our best to try and help educate people when we're out fishing. But I don't think people are in there trying to access closed areas on purpose."

"They should make laws they can enforce. It's a waste of time."

"Recently, the MPA maps available through California Fish and Wildlife have become better, so that's become slightly easier to understand for people. So that's moving in the right direction."

16. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants reiterated some thoughts and shared additional thoughts they wished to communicate to managers.

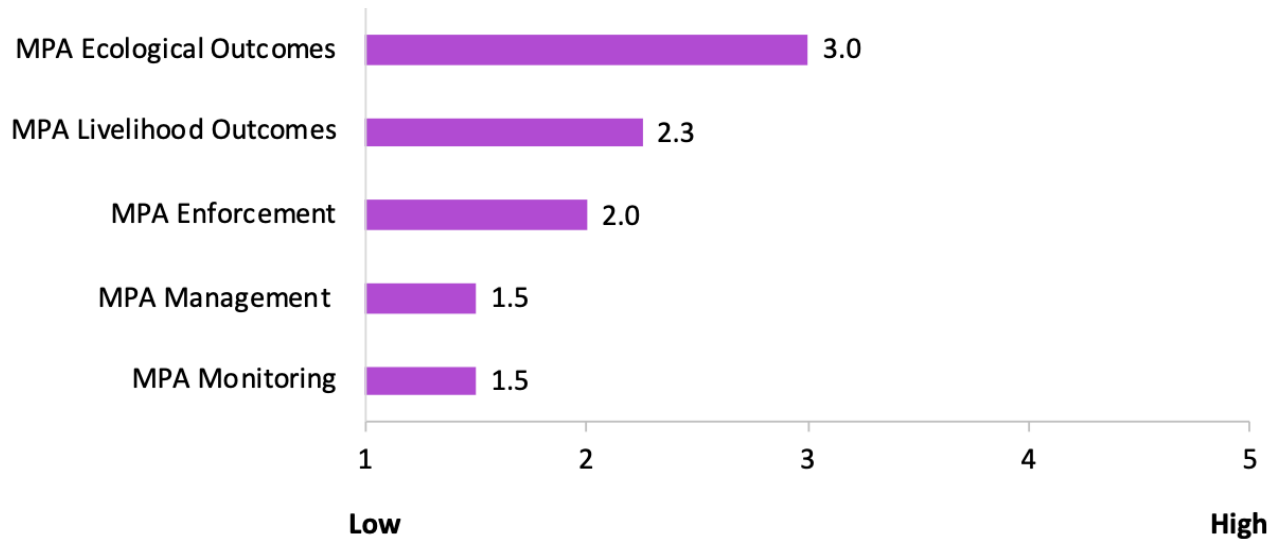
- One participant reiterated their desire that fisheries managers open MPAs on a rotational basis.
 - One participant believed opening MPAs close to port would allow them a smaller carbon emissions footprint.
 - One participant expressed concern that even though closed areas (e.g., the Cordell Banks National Marine Sanctuary) have rehabilitated some fish stocks, there is no intent to reopen the area. They expressed frustration that once an area is closed, it is closed in perpetuity.
- One participant shared their frustration about the Coast Guard's changes in CPFV license procedures, which they say has resulted in an increased number of entrants into the industry who are not serious about the business, creating challenges for those who make a living fishing.

Participant Quotes

"They've been closed too long with no access. Closing is easy, management's another. They need to split Stewarts Point up, maybe make a north and a south, or a north, south and middle and put those regions on rotation so we can gain access. You know, we want management, not closure."

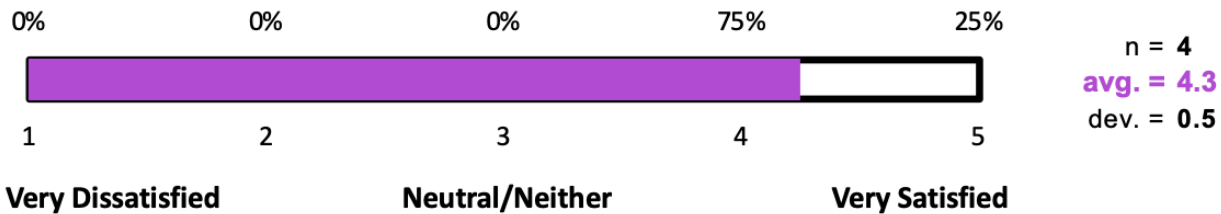
"Probably 20 years ago, the Coast Guard relaxed on licensing requirements and [...] many years ago, you had to have documented time that was signed by somebody in the industry that verified that you had enough time [relevant professional experience] to sit for a Coast Guard license. But what's happened is this has become privatized and they even have tutors that travel to different locations and will teach a person what he needs to know to pass the test. So what that's done is it has really increased the number of people that have come into this business. But a lot of the people are really not trying to make their living at it [...] and we're seeing so many people come from the outside because it's very easy to obtain a license. [...] And I don't think it's for the betterment of our industry. I think it also potentially presents problems for the public, too, because not everybody is really a serious player. [...] So it's made it tougher for the people that are serious players like these guys trying to make a living."

Perceptions of MPAs, Average Responses for Questions 10-11a, 13-15



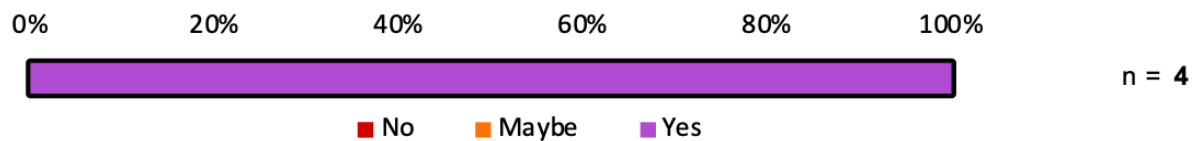
Feedback on Virtual Process

17a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



17b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the purple bar indicates the percent of participants who responded 'Yes' to question 20b. If participants responded 'No' or 'Maybe,' a red or orange bar would appear, respectively.)



17c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary (Due to time constraints during the focus group, participants provided ratings for these questions, but were not asked to discuss their responses.)

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Passenger Fishing Vessel Fishing Communities in Relation to the MPA Network

Members of San Francisco Area's Commercial Passenger Fishing Vessel Community

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with commercial fishermen and Commercial Passenger Fishing Vessel (CPFV) owner/operators throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and CPFV fishing communities in California, including impacts from MPAs. A key goal of this study is to convey commercial fishermen's and CPFV owner/operators' perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of CPFV owner/operators were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, income, allocation of resources, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where commercial fishermen and CPFV owner/operators were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Regional CPFV Port Group: San Francisco Area Ports

Date: Thursday, September 10, 2020

Participants: Tom Mattusch, William "Captain Smitty" Smith, Jon Yokomizo

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

Overview

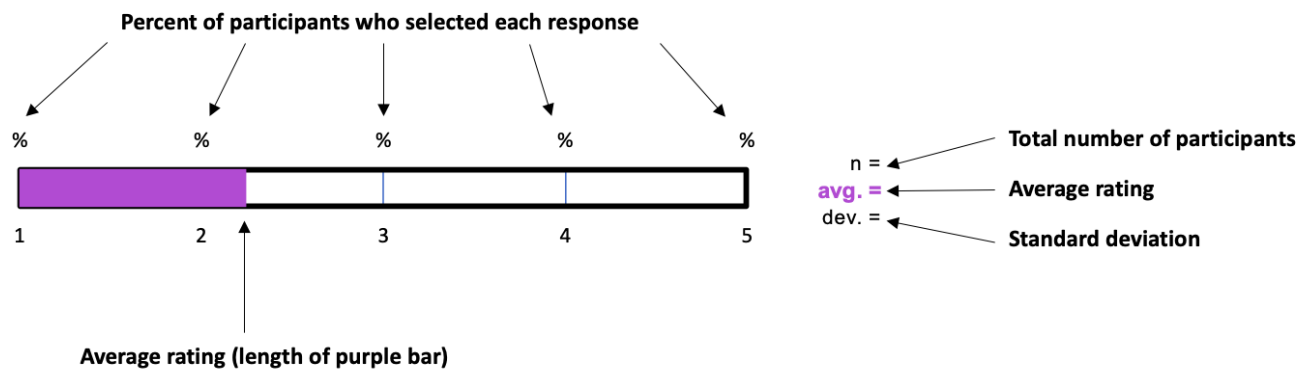
On September 10, 2020, three CPFV owner/operators out of the San Francisco area participated in the sixth focus group conversation overall and first CPFV focus group conversation*. A detailed summary of the conversation is captured below, including:

- the numerical final scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

*This focus group acted as a pilot for the Project Team's conversations with CPFV owner/operators. Based on input shared by San Francisco area participants and the Project Team's learning, our methodology changed following this first CPFV-focused discussion. To adjust for this update, the Project Team conducted one-on-one discussions with each participant to complete their well-being scores, which were initially asked in an open-ended format.

Guidance for Interpreting Figures

There are 14 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation, or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 14 and 22 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

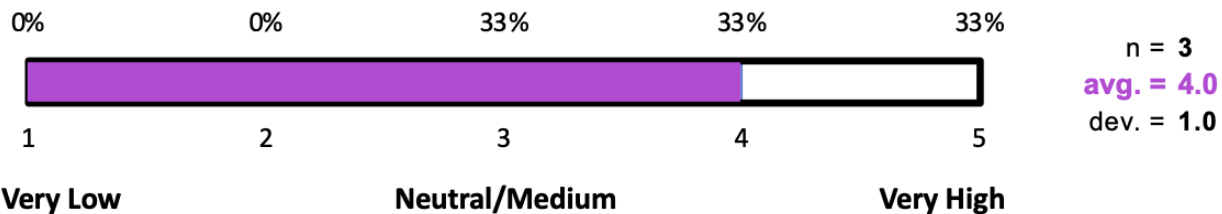
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: North Central Coast](#)
 - [A Summary of the Marine Protected Area Monitoring Program 2010-2015, North Central Coast](#)

Our Project Team would like to express our appreciation to the three San Francisco area CPFV owner/operators—Tom Mattusch, William “Captain Smitty” Smith, and Jon Yokomizo—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resources - Present State Overall, how would you rate the current health and sustainability of the marine resources on which CPFV owner/operators from this region rely?



Discussion Summary Participants rated marine resource health between neutral and very high. They said rockfish populations have improved in the San Francisco area over the past several decades, and their clientele have been catching sufficient quantities of - although smaller in size - rockfish. They said this year’s salmon fishing has been slow, causing some salmon charter operations to supplement their salmon catch with rockfish. Participants said the ocean currents during the summer of 2020 had a big impact on the fish species they caught; specifically, sustained currents from the south, as opposed to normal currents from the northwest, resulted in fish species typically found south of the San Francisco area being caught locally. Participants also discussed the status of local kelp beds and their importance to the fishing industry.

- One participant said rockfish stocks are recovering from overfishing during the 1970s and 1980s due to managers having limited access for commercial fishing in shallow areas. One participant believed ‘super draggers’ had decimated local stocks. Another participant recalled how rockfish populations were also intensely targeted by small-scale commercial fishermen who did not properly preserve their catch with ice, which spoiled; they would replace the spoiled catch with new catch to tempt buyers, only to repeat this cycle, which negatively affected the resource.
- Participants discussed many challenges facing the local salmon fishery, from drought to management of hatchery salmon to water law.
 - One participant said the slow salmon season during 2020 resulted in local salmon charter boats targeting rockfish instead so their clients could catch some fish during the fishing trip, even if it was not salmon.
 - One participant attributed poor salmon fishing success to hatchery managers’ timing for smolt releases, which they believe is not aligned with high river turbidity levels, resulting in unnecessarily high losses of smolt to predation.
- Several participants said the presence of currents from the south, rather than normal currents from the northwest, affected the number and diversity of fish caught locally during summer 2020. One participant believed these abnormal currents were part of the reason for the slow salmon season, but climate change, drought, and water law also play important roles.

- Participants shared there are healthy kelp beds from Duxbury to Drakes Bay, but there is a large reduction in the amount of kelp near Half Moon Bay. One participant said both *Macrocystis* and *Nereocystis* populations look healthy at Año Nuevo. Several participants said healthy kelp forests benefit their fishing operations (e.g., as nurseries for fish resources), and one participant stated they were concerned about kelp loss negatively affecting their business. One participant expressed concerns that land-sourced pollution, including agricultural and street runoff, is a major contributor to kelp bed loss and abalone population decline.

Participant Quotes

“During the 80s, the [federal] government said the ocean is an infinite wilderness. They gave out [many millions of dollars] to build super draggers. We watched these draggers come across the deep reef and they have roller gear that could roll over a three-story house. We watched them decimate the fishery... there would be just acres of fish that were dead on the surface. And this was what we were fighting in the 90s to stop... we were effective in reducing that, but also we had to pay the price of, if they're going to get reduced, then we're going to get reduced too.”

“The salmon fishing is so slow, that the majority of the salmon boats fishing out of San Francisco Bay, they're running out, getting limits [of] rockfish on the coast and then they fish salmon, just so that the people go home with fish. They're smaller fish, though... the guys have been doing really well for the rockfish.”

“For salmon, the problem is manmade. The salmon don't leave the creek, until you got turbidity. It's just like a delta smelt; they're not going to move until they have turbidity to migrate so that they're not going to get eaten. And that's one of the biggest problems with what's happening with the salmon, is they're [hatchery managers] releasing them with no turbidity. So you get all the predation. It's not [just] the birds, it's not [just] the stripers, it's everything... catfish'll eat 'em.”

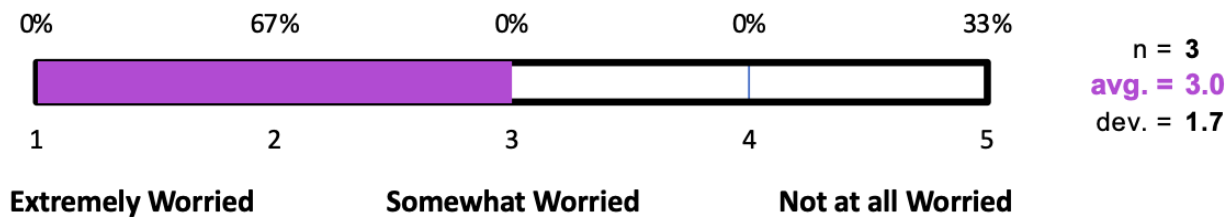
“We have not had a northwest current all summer. All of our currents have been pumping out of the south, pumping up north... the currents have had a tremendous effect on the salmon fishery. Without the northwest currents... the northwest currents bring in the upwellings that cool the water, that bring those nutrient rich waters from the bottom to the surface to feed the plankton, the anchovies, the filter feeders, the salmon, the rockfish, everything that feeds off of those northwest currents... we have not seen them. It's been southerly all year long... we've got probably a dozen ocean white fish this year on the [Farallon] Island. You're just seeing different species... we've got some wrasse that you probably would catch at La Jolla kelp beds.”

“Last year, 762 fish [salmon] from the Coastside Fishing Club's Salmon Smolt Acclimation project were caught off Westport, Washington. That would have sustained Pillar Point Harbor for a month, with all the charter boats... currents are part of the effect, but we got to look at the river, whether you want to talk about climate change, drought, water regulations... there's a lot of things that are all interconnected.”

“From Duxbury all the way up to Drakes Bay, there's areas that we've always fished that we can't even fish now there's so much kelp. We've got kelp beds in 40 feet of water that has been just barren rock before, and now I can't even get in there.”

“For us in Half Moon Bay, we have the reef just right outside of the harbor, and there's been a tremendous reduction in the amount of kelp that we've had there. There's, I'd say, maybe 20 percent of what has been [there] historically. We've had the kelp beds down in Pescadero, Bean Hollow, Año Nuevo, and there has been a big reduction of those.”

2. Marine Resources - Future Concerns Overall, how worried are CPFV owner/operators from your region about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Participants expressed concerns about future ocean and climate change in addition to poor management, both in the ocean and rivers. One participant said regardless of management, Nature will take her course and that currents determine the water temperatures that affect fishing.

- One participant shared their concerns that water law and management, combined with California’s drought, might negatively affect the salmon populations their business relies on.

Participant Quotes

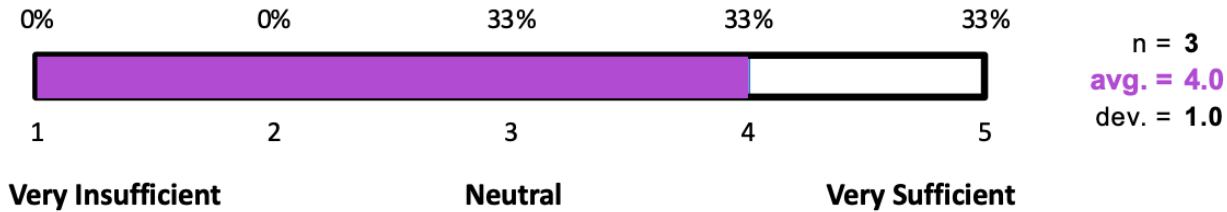
“[It’s a] combo of worry about management and future ocean change. I’m always worried that CDFW [California Department of Fish and Wildlife], NMFS [National Marine Fisheries Service], NOAA [National Oceanic and Atmospheric Administration], PFMC [Pacific Fisheries Management Council] are going to screw up management measures.”

“It's almost all current-driven. You could see [it] when you have the northwest [current]. That one storm will drop the temperature five degrees and as long as you don't have a south current after that, it'll stay cool until you have this southerly push. And you can't worry about it because it's Mother Nature... Mother Nature is going to do what she's going to do. Every year is going to be different.”

“The macro view [is] California's in a drought. We have water wars going on that have been continuing for 150 years that basically, if we don't flush some of the rivers with enough cold water, the water levels are going to drop. The salmon that do go up are going to lay the [eggs]. The [eggs] are going to get exposed to the air. The flies are going to lay eggs and that will ruin that. So this year's salmon swimming up the river is tremendously at risk because of water wars that are way above the three people that are on this chat with you. Three charter boat guys can't do anything about how water gets allocated down the rivers.”

Well-Being, Economic

3. Income from Fishing Overall, how would you rate the income that CPFV owner/operators (including crew) from your port earn from fishing to support livelihoods?



Discussion Summary Participants expressed a range of views with regard to income to support fishing operations in their respective ports. One participant said income levels depend not only on fishing conditions, but also on the socioeconomic status of society as a whole.

- One participant operating out of the East Bay said they earn a steady income, and even though many of their regular customers stopped booking trips due to COVID-19, there were enough new customers to fill the boat (for further discussion related to COVID-19 impacts, please see the **Discussion Summary** on page 8). They believed other operations, particularly salmon charter operations, were struggling to earn enough income to support their livelihoods due to low salmon abundance.
 - One participant highlighted the importance of healthy salmon populations in sustaining livelihoods within the CPFV industry and said drought impacts on salmon runs have hurt their business (for a more detailed discussion related to salmon health, please see the **Discussion Summary** on page 3).
- One participant related income earned from CPFV operations in Half Moon Bay and East Bay to their proximity to population centers. They said Half Moon Bay struggles to bring in customers from the Bay Area who must drive longer distances to reach the port. One participant recounted losing income due to former clients buying their own boats to fish recreationally and/or illegally, charging for and taking people on fishing trips.

Participant Quotes

"[Income] depends on weather, socioeconomic status of society and customers... going through recessions impacts the business we can maintain, more than just fishing itself."

"Everyone [CPFV owner/operators in Emeryville] makes a living. [They] either make money, or a lot of money. Some commercial crab or [commercial fish for] halibut, but for the most part, everyone is either working on the boat or on vacation... I had a reduction of my regular customers by like 70 percent [this year due to COVID-19]. But I brought in a lot of new customers this year, because there are a lot of years where people couldn't get on the boat because I was full. So now I'm bringing in a lot of new people. So it's just one of those things for myself. The other boats, the salmon boats, they're struggling... I fish rock cod through the whole season."

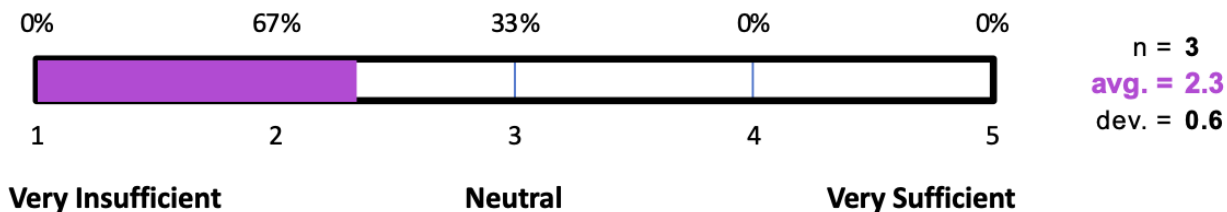
"[It's a] nice balance: [there is] income to support livelihoods. What hurts [is] all this drought - [it's a] problem with no water for salmon, [they're] down in numbers. [It's the] biggest fishery

we've got – the crab/rock crab combo is key, but salmon keeps us alive. When salmon's a problem, then everything else is a problem.”

“[In Half Moon Bay,] we're trying to survive. One of the things that also affects us [is, in Emeryville, there is] a larger market to draw from. We don't have the whole East Bay and concentrations of population that [the Emeryville] market has, and that's one of the reasons why Half Moon Bay always struggles, because people have to drive.”

“We have lost a tremendous amount of our clientele to the private industry... a lot of our customers have gone out and bought their own private boats and are now bootlegging and taking people out for monetary reasons. So we've seen a large reduction in our business because of the small vessels operating illegally and the ones that are operating legally, still, these are clientele that we have lost through their buying their own boats. And a big problem again with that is that they just follow us around, they're like flies.”

4. Allocation of Resources Overall, how would you rate the allocation of fish resources for CPFV fisheries in terms of supporting the CPFV industry?



Discussion Summary Participants rated the management and allocation of resources from very insufficient to neutral, and expressed frustration about the management of several fisheries they rely on, specifically lingcod, salmon, and chilipepper rockfish.

- One participant was frustrated with the poor management and allocation of lingcod. Within their role on a policy advisory body, they opposed CDFW’s increase of sportfishing lingcod limits from two to three fish and believed this led to a crash in lingcod stocks.
- One participant said local area closures (e.g., Rockfish Conservation Areas (RCAs) and MPAs) have helped to rebuild rockfish stocks, positively affecting their business. However, they expressed frustration about a recent management decision increasing the commercial open access fishery’s access to 40 fathoms, which they are concerned will negatively affect recently rebuilt rockfish stocks.
- One participant expressed frustration that salmon populations they rely on have been negatively affected by poor management of rivers by the Bureau of Land Management (BLM), in addition to poor management and misuse of water and dams. They said the salmon fishery has been decimated by dams.
- One participant believed new habitat (e.g., artificial reefs) should be created to help build stocks for future allocation and access (for further discussion related to artificial reefs, please see the **Discussion Summary** on page 21).

Participant Quotes

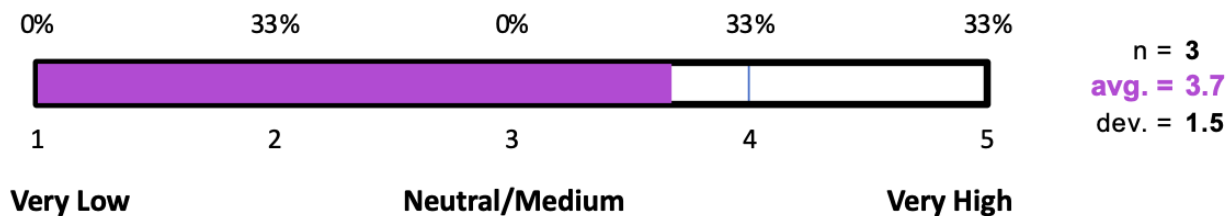
“I fought to keep the lingcod limit at two, they upped it to three... but then it crashed. [They said] if you don’t want those fish, we are going to give them to commercial allocations.”

"[Management has a] tremendous impact on our ability to survive as a business. Rockfish has been managed under restrictions of MPAs and RCAs, which has tremendously impacted us. This has allowed stocks to rebuild, [and we are] seeing sustainability from [this]... the concern now is open access fisheries being allowed to fish out to 40 fathoms, which will have a big impact on these fisheries that have been protected and are rebuilding. [My] concern is about [opening] commercial fishing, which has historically been very impactful."

"[For] salmon, mismanagement in rivers and streams through BLM, misuse and mismanagement of water diversion, mismanagement of dams. The original allocations... the first mitigation was to compensate for loss of stream habitat, hatcheries - [this has been] mismanaged... fisheries [have been] decimated by dams, this has been completely disregarded regarding original intent."

"Chilipepper rockfish is federally designated as underutilized and [we] can't access [those fish] because of depth limitations... we need new habitat [like artificial reefs] that can be created to help with the future in terms of access and allocation."

5. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your region's CPFV fishing operations?*



Discussion Summary Participants said their businesses have been affected by COVID-19 to varying degrees. Some participants lost nearly three months of their fishing season due to COVID-19, but recent approval from local County Boards of Supervisors have allowed businesses to re-open with extensive sanitation efforts and reduced passenger loads.

- One participant said their regular customers stopped booking trips but new customers filled in, allowing them to continue operating, albeit with reduced loads in accordance with social distancing measures. Another participant said they lost significant business as a result of regular customers, who are typically older, choosing not to be in public spaces like on charter boats due to increased health risks associated with COVID-19.
- One participant described how they have made significant investments in sanitation supplies, extensive efforts to keep the boat sanitized, and greatly reduced passenger loads in order to keep customers properly spaced per health guidelines, all of which have allowed business to pick up recently.
- One participant recounted how guidelines during the early months of the pandemic led to the closure of the port's parking lot to public access. Their business was negatively affected as a result because people were not allowed to camp out for the weekend, nor go fishing because they had no place to park.

Participant Quotes

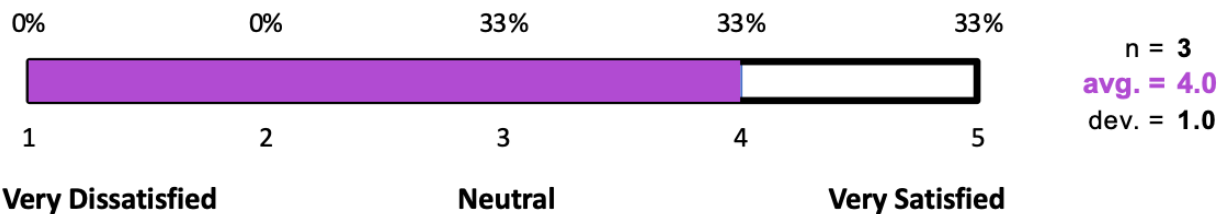
“You know, COVID slowed us down a whole lot for several months, even now, we're rebuilding with half loads, slightly increased prices. All of a sudden, this economy may start to be improving... there's a number of us working together just trying to get a load out. There's days that my captain - I have a hired captain and crew - I'll put them out with three people. Well, if you do the math on that, you know, that's not helping the business very much. But it helps them to gather a little bit of rent money, so we're running reduced loads.”

“My regular customers are really feeling afraid to ultimately go onboard vessels and that's a huge loss under COVID. That's been a big problem for all of the CPFVs... I'll speak for me, a lot of my regular clients are older, and the COVID has had more of an impact on the older people. And they are tending to be much more cautious. And when I've contacted a lot of them, they said they're afraid of contact with people and they won't come out because of that.”

“I probably have \$600 invested in hand sanitizer bought at the peak of the: 'Oh my God, we need the disinfecting solutions, the wipes'... and you pay an absolute premium. Now they're a little bit easier to get, but when we needed them, we needed them. Many of the harbors came up with, 'Here's what we're willing to do to put people on our boat' [...] San Francisco [and] Berkeley got something approved by their County Supervisors, I [...] got Half Moon Bay approved by our supervisors. So there's been a lot of money invested in this... we disinfect the entire vessel in between the cells... everything is done in between drifts... and we're outside... but that's just part of the extent that we're going to try and keep things safe.”

Well-Being, Social/Political

6. Job Satisfaction Overall, how satisfied do you think CPFV owner/operators from the region are with their jobs?



Discussion Summary Participants shared they were generally satisfied with their jobs due to working outside; doing an activity they enjoy; working with customers; and having autonomy over their work loads, activities, and schedules.

- One participant explained that money is a stressor that affects their job satisfaction, but working with happy customers ultimately brings them satisfaction.

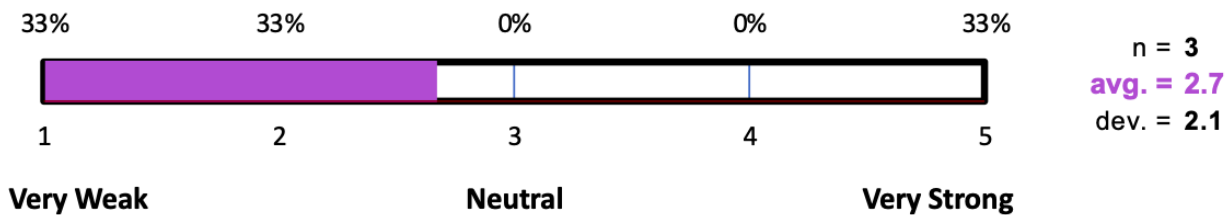
Participant Quotes

“[We] all feel blessed we are able to fish, [and to] have the business we have.”

“Everyone who wants to go out is going out, which is a good thing. The media reports massive amounts of people can’t work, at least we can work and get out in the fresh air. [In this industry, you] have the opportunity to do things, be as successful as you want.”

“The stress of money is always an overriding factor that would limit satisfaction. But my customers and their satisfaction is paramount to me, which I would rate is good. Overall, I feel satisfied and gratified.”

7. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) among CPFV owner/operators in your region?



Discussion Summary Participants shared a range of views, from very weak to very strong, regarding the strength of social relationships among CPFV owner/operators in their respective ports within the greater San Francisco Bay Area. Some participants identified strong relationships and collaboration within their port, while others said CPFV owner/operators in their port do not work well together.

- One participant highlighted the differing levels of cohesion and organization across fishing associations in the San Francisco Bay region.
- One participant said CPFV owner/operators in their port work together to share information about fishing conditions, while another participant indicated there is less collaboration among CPFV owner/operators in their port.
- One participant shared how there is a high level of competition among CPFV owner/operators for certain fishing spots, but overall relationships are strong in their port and owner/operators engage in social activities together. One participant described a collaborative relationship among CPFV operation employees in their port, especially when working to improve their facilities.

Participant Quotes

“SAC [Sportfishing Association of California] has more cohesiveness [here] than up north. We have the GGFA [Golden Gate Fishermen’s Association], [but it is] very disorganized. There are factions that point fingers, lots of pockets of bitching and moaning.”

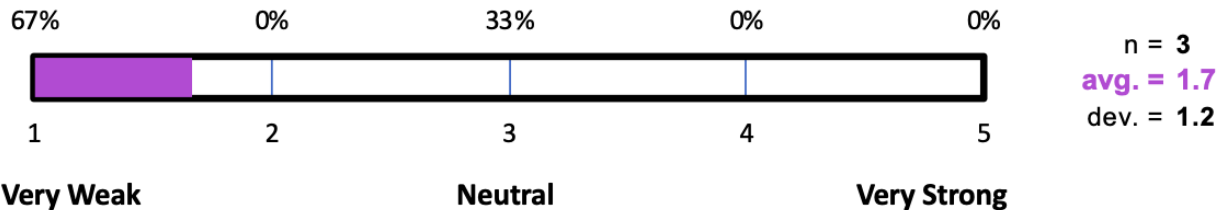
“The CPFV operators, we do work together, we do talk and share information as to what areas are producing, what areas are not.”

“There's not much working together; we talk, we're all struggling for business now. We're friends, we don't do a lot to promote things.”

“It’s pretty cutthroat [here]. If I gave anyone lat/long on a rock, other guys will pound the stones until there’s nothing left. Salmon guys, some work together, but I'm doing my own thing seven months out of the year... but at the end of the day, we pass the beers around and everything's fine. It's like for Emeryville, we're a family. We don't get into a fight... we have a beer at the end of the day together, but as far as fishing goes, you're on your own. Yeah, but for the [policy engagement] we got to stick together.”

“If you want something done [in our port], you do it yourself... a lot of our customers [work for] lumber companies... we just call them and say this is what we need, and they'll drop off a truck load of lumber to the parking lot and we'll just pull extension cords and all that and just build it ourselves - deckhands, captains, everybody just gets involved if we want something done.”

8. Social Relationships - External Overall, how would you rate the strength of relationships between CPFV owner/operators in your region and external groups who could help support industry needs?



Discussion Summary Participants shared a range of views regarding the strength of San Francisco Bay Area CPFV owner/operators’ relationships with external groups, from very weak to neutral.

- Two participants described situations that created a lack of trust in state managers; specifically, they referred to frustrations about lingcod limits and canary rockfish restrictions that did not seem like informed decision making.
- One participant said they have good working relationships with commercial fishermen on their dock, which is beneficial when negotiating with groups external to the fishing industry (e.g., environmental groups, management agencies). Another participant identified tension, competition, and spite between CPFV owner/operators and commercial fishermen, especially as it relates to allocation of resources.
- Participants discussed how social media affects their relationships with groups outside the CPFV industry. One participant believed social media creates division between the CPFV and commercial industry, while another participant thought social media is an important advertising method for both CPFV owner/operators and commercial fishermen.
- One participant said the CPFV fleet has a good working relationship with harbor management in Half Moon Bay, while another was frustrated by the harbor’s lack of support for the Coastsides Fishing Club’s Salmon Smolt Acclimation project.
- One participant was frustrated about challenges getting CPFV representatives on the California Dungeness Crab Fishing Gear Working Group, despite CPFV owner/operators making public comments at Fish and Game Commission (FGC) meetings expressing frustration about not being included in these conversations.

Participant Quotes

“With the lingcod, I fought to keep it at two fish. Well, they raised it to three. By September of the first year of the two-year season, they [CDFW managers] wanted to shut the season off because we took too many lingcod. So then we renegotiated, and they kept saying, ‘Well, we’re still going to give you three.’ Then [they] dropped down to one. Then they gave us two and they wanted to raise it to three... then they increased the open access lingcod to the commercial guys, instead of keeping it at two [fish] and four hundred pounds. So it’s constantly fighting a battle on that front. [Now] you got perch fishermen in 14-foot boats running out and catching their 800 pounds of lingcod every month.”

“We have commercial guys on our dock and sport, and... we either stick together or we die together. So we have to work together to fight the common enemy, if you will call it that. And that's where we get along and... we take care of it. [The common enemy,] it's complex, but [it's] environmental groups sometimes... a lot of times the government, as far as the fisheries go. Say, with the canary rockfish, I asked... Fish and Game, 'What are we going to do about the canary rockfish?' and their quote to me was, 'You'll never see a canary rockfish in your gunny sack in your lifetime.' By September they said, 'Oh, the canary rockfish stock has been fully rebuilt.' So there's no trust, there's no trust... after a while, you just get burnt out going to these meetings.”

“I think it's a more adversarial [relationship between] CPFV versus commercial [compared to CPFV versus recreational], because the commercial is far more... able to state their position, they've got more seats on... PFMC and they can go around with different committees. [I've made] presentations to PFMC before [to] get more allocation for different fisheries, and literally had people say, 'Oh, there goes the recreational trying to ruin another commercial fishery.' We take a fraction of what they take and CPFV and recreational are managed under the same rules... I see it not so much as adversarial between [CPFV and] recreational, but more about commercial allocation... issues.”

“You'll see it with social media between the commercial, the sport, and the charter boat [when] the CPFVs are fishing or the sport guys are fishing, and they're showing all their pictures on Facebook, the commercial guys get burned. And when the commercial guys are getting 175 to 200 fish a day, it goes both ways. But social media is destroying the industry as a whole [...] we should be coming together.”

“There's another person, [name redacted], who has been the groundfish representative for the GGFA at the PFMC meetings. And [he] has been on the groundfish management team for about 20 years. And he has done his best to help protect our industry, but [he] is waning out and getting burnt out... Back in the 90s, I attended a lot of meetings myself [...] It's difficult to break into the good old boy groups [at these meetings and during policy processes]. And once you're there, they're very protective of their positions.”

Well-Being, Overall/Additional Comments

9. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's CPFV fisheries?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants highlighted ongoing challenges related to infrastructure in San Francisco Bay Area ports and frustration about access to chilipepper rockfish and black cod resources. One participant requested attention be directed toward regulations allowing the open access fishery to 40 fathoms and the potential impacts loosening restrictions on the open access

fishery may have on groundfish stocks overall. One participant reiterated the need for greater consideration of CPFV owner/operator input in management decisions.

- Several participants said the pier at Pillar Point Harbor in Half Moon Bay, party boat dock, and six-lane launch ramp need to be rebuilt, yet construction is hindered by funding and permitting issues. One participant said infrastructure needs in Emeryville are not addressed by the company that operates the Emeryville marina, leaving CPFV owner/operators and commercial fishermen there to deal with infrastructure themselves.
- Participants were frustrated with the poor access to chilipepper rockfish habitat and poor allocation of black cod resources; they cited politics within PFMC processes as one reason CPFV owner/operators' access to these resources is limited.
- One participant was frustrated that CPFV owner/operators input isn't given enough weight in management decisions.

Participant Quotes

"We've got a harbor dredging program that has been approved by the state. We have so many small permitting issues. We've got the entire pier at Pillar Point Harbor that needs to be rebuilt. We're trying to rebuild H Dock where all the party boats are. Our six-lane launch ramp has been deemed at the end of its life. Where do we come up with the funds? We used to be able to go to the Department of Boating and Waterways. Since Parks took them over, the Department of Boating and Waterways hasn't been as solvent as they used to be. So there's a tremendous infrastructure and funding need at Pillar Point Harbor."

"Oh, for the Bay Area, San Francisco's its own animal. They really don't have anything [in terms of infrastructure to support CPFV operations]. For Emeryville, Berkeley, we have the charter boat dock or commercial dock. And if we have a problem with it, we fix it ourselves. The harbor is leased by a company through the city. The city owns the property and a company that owns almost every single marina in the midwest... they operate Emeryville Marina. And they really don't want us there. But the city council wants us there since we've been there so long. So if we have a problem on our dock, if we need a fish cleaning rack or anything like that, we make it ourselves."

"You know, we have an underfished species like chilipeppers, commercials are on limits there and we can't access them even if we wanted to. Rumor is we're going to get ten more fathoms next year. Ten more fathoms isn't going to put us into chilipepper water. You've got something that's federally classified as underutilized and we're not allowed to go out and try it. I've tried to get an EFP [Experimental Fishing Permit] for it and it was somehow blocked."

"There is an agenda on a lot of these fisheries, the black cod and the various other species that the commercial are being extremely protective of, and they have the power and resources to guide and control that aspect of those fisheries. And I think that that is one of the major stumbling blocks for both black cod and the chilipeppers, is that you're going up against a major block in the PFMC and they have the power and they don't want to give it up and they're going to enforce their wishes."

“There needs to be more concern about regulations regarding the open access fishery out to 40 fathoms, and the impacts on all fisheries, and other changes that are allowing more commercial fishing impact on groundfish stocks.”

“There needs to be a better understanding that CPFVs are stewards of these resources, and the info we can provide needs to be considered with more weight, rather than [considering our input as] anecdotal [...] People like me have over 50 years of experience in these fisheries, managers don’t give enough weight to our experience; they give more weight to college grads who study statistics on paper, and have never been a part of the marine environment.”

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-4, 6-8

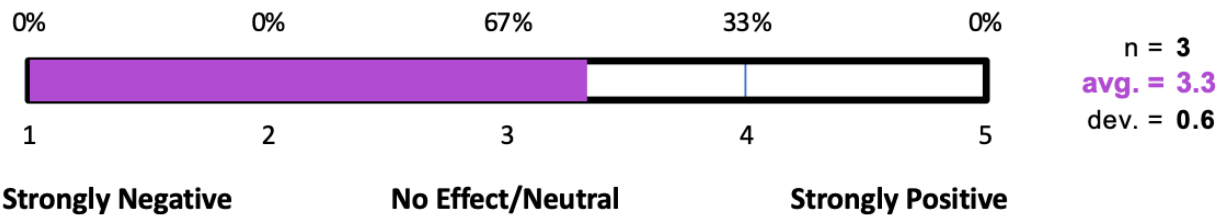
(**Note:** The following figure does not include the average rating for question 5. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

10. MPA Ecological Outcomes How would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants believed MPAs in the San Francisco Bay Area have had positive or no effects on marine resource health. Participants expressed different opinions about MPA impacts with respect to spillover. One participant discussed both positive and negative effects from MPAs, and believed the overall effect on local marine resources was positive. One participant said they are seeing more fish, but not bigger fish, as a result of MPAs.

- One participant believed MPAs have positively affected fish populations by protecting nursery habitat but that MPAs have negatively affected fish populations due to compression of fishing effort; they estimated the overall effect was positive.
- One participant recalled their participation in MPA monitoring when they caught the same fish in the same area during subsequent years of the study, which led them to believe there is no spillover from the MPAs. Another participant countered this perspective, saying subadults and juvenile fish, which are not tagged, are the individuals populating new areas beyond the habitat of the older tagged fish.

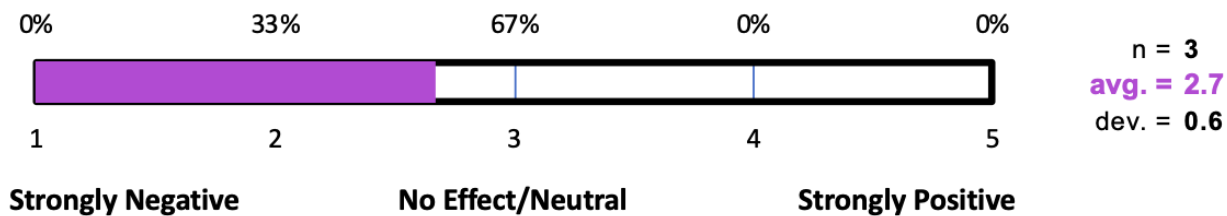
Participant Quotes

"I think [MPAs] have had a positive effect on the fisheries in that it gives them a nursery and a rookery for fish species here... the negative aspect of this is that it has limited our geographical areas where we can fish. And the limiting of geographical areas we fish has had a negative impact, because we're having to fish in a smaller area... we end up having to go back to the same spots as opposed to going to new areas all the time... but the positive aspect is that it has been a good rookery. It's an area where fish populations have been able to grow and those juveniles and subadults are moving to other areas. And so I see it as an overall positive thing because of the increase in the populations."

"I think it has to do with the annual recruitment. You have good recruitment years, bad recruitment years. Majority of our rockfish don't really leave the rock that they're born on, are hatched on... with the new electronics [i.e., fish finders] it's pretty easy to wipe out everything that exists and then just move on. The reserves help some of the pelagic species exist because they can't be taken at the time that they're in there. I've been monitoring the marine reserves for 14 years on these programs and you catch some of the same tagged fish that you got three, four, five years ago in the same block that you caught them in before. So the spillover effect is a fable."

“One of the aspects that I feel is a big part of this is the juveniles and the subadults are the ones that are leaving the areas to go populate other areas. Yes, you may have adults that will continue to stay in one area, but as with all species, it's the subadults and juveniles that will move into new areas. And I see these as repopulating many of the other areas of the fisheries. So I believe that is one of the best aspects of the MPAs is that they have allowed that.”

11a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for CPFV owner/operators from your region to earn a living?



Discussion Summary Please see the **Discussion Summary** following question 11b. *MPA Effects - Overall* which summarizes the conversations related to questions 11a and 11b.

11b. MPA Effects - Overall What other types of effects or impacts have CPFV owner/operators from your region experienced from MPA implementation?

Discussion Summary Participants rated MPA impacts on CPFV owner/operators’ livelihoods between negative and neutral. Two participants said if there was an additional response option for ‘Slightly Negative,’ they would have selected it. Participants discussed negative impacts from MPAs including compression of fishing effort into smaller areas, increased fuel requirements due to having to travel to fishing grounds farther from port, and cumulative impacts from multiple types of area restrictions.

- Participants recalled experiencing crowding from more boats fishing the same few spots simultaneously and said the fish they are catching are smaller due to increased pressure on the fishing spots that remain open.
- Participants discussed cumulative impacts from MPAs, RCAs, Cowcod Conservation Areas (CCAs), and special bird closures. One participant suggested RCA and CCA restrictions should be removed in their region.

Participant Quotes

“We're having to work in smaller areas to stay legal. And again, it's more impact on them [the fishing grounds that remain open]. I believe that the MPAs have been effective. To expand them would be detrimental to all three industries: the commercial, the recreational, the CPFVs. The ones [MPAs] that we have set up and are implemented now, I believe, in our area, have been working very well.”

“Not just more fuel, greater pressure, smaller fish. [We are] pushed into smaller boxes.”

“One thing that you also need to understand is that the RCAs have also had a tremendous effect and impact on our industry [in addition to the MPAs], and that's not being addressed here at all.

[The combination of the MPA network and the RCAs have] pushed us into a much, much smaller box [...] The RCA should just be done away with completely. And we've had so little cowcod up here that I can never remember, and like I say, I was fishing this back in the 70s... we have very little cowcod at all. It's a Southern California fish."

MPAs, Discussion of Specific MPAs

12. MPA Effects - MPA Specific Which MPAs have had the most impact on CPFV owner/operators from your region and why?

Discussion Summary Participants highlighted several MPAs that have negatively affected CPFV owner/operators from the San Francisco Bay Area.

- *Point Reyes State Marine Conservation Area (SMCA), Point Reyes State Marine Reserve (SMR), North Farallon Islands SMR, and Southeast Farallon Island SMR and SMCA:* One participant was frustrated about losing safe harbor areas to MPAs near Point Reyes and the Farallon Islands. They were concerned about potentially being accused of fishing in MPAs if they needed to stop in the closures due to an emergency. One participant stated the loss of safe harbor area was a greater impact from the Farallon Islands MPAs than the closed fishing grounds, while another participant thought MPAs at the Farallon Islands closed good bottom habitat for fishing.
- *Point Reyes Headlands Special Closure:* One participant noted the Point Reyes Headlands Special Closure is all sandy bottom, and they would like to see fishing access opened here which they believe would still enable the protection of elephant seals.
- *Año Nuevo SMR and Montara SMR:* One participant said the MPA at Año Nuevo hasn't affected their business much, but the Montara SMR was a place they used to fish a lot. They thought that in the future, the Montara SMR might produce good quality fish, similar to what they see on reefs south of Pigeon Point which are producing good quality fish after not being fished for two decades. Another participant said the Montara SMR has increased the distance they must travel to fishing grounds, and described their frustration seeing lots of people fishing illegally in the Montara SMR.

Participant Quotes

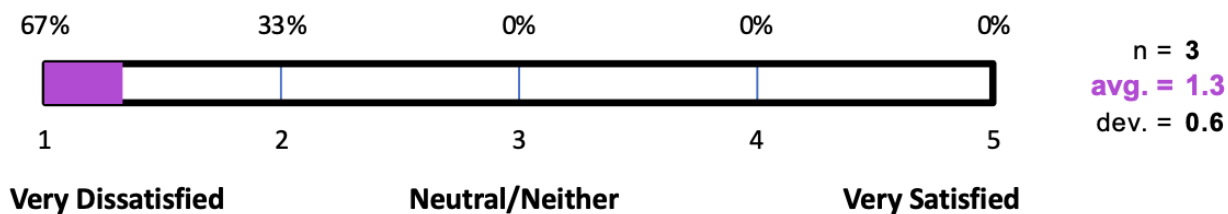
"For the MPAs, [in our area] you got Point Reyes and you got the Farallon Islands. By having the MPAs there, you're taking away safe harbor. So if you got high winds... last week, a guy had a seizure on the boat, and if I were to stop in an area that was calm enough to take care of him [in an MPA, someone would] call [the CDFW warden] and he'll come running out, and call me on the radio. So [I would be] accused of fishing somewhere I'm not supposed to be, and I'm not even fishing. Plus, if we have the south wind, [I could] hide on the north side of the island, or if you have a big wind up at Point Reyes, you could hide along the bluffs and get out of the weather. So for the guys out of San Francisco, [MPAs are] taking away a safety measure."

"Año Nuevo, less [of an impact]. Montara, we used to fish a lot. Montara could potentially turn out to be one of those things, like when we got 300 feet below Pigeon Point, there are some reefs that hadn't been fished in 20 years and they're producing just absolutely phenomenal quality fish. The Farallon Islands, to me, was a shame. There's so much habitat out there. I didn't see a need personally to shut down any of that, we lost some really good bottom."

“The MPA off Montara was a very good fishery for us and was very close to our port. But it has affected us financially because we have to run further to obtain fish for our customers. I think it's been effective, again, as a rookery for a lot of species here. But there's constantly people bootlegging fish in the [Montara SMR]. And they [CDFW wardens] can see it from the beach, I mean, they don't even have to get on a boat there to enforce that.”

MPAs, Management

13. MPA Management Overall, how satisfied do you think CPFV owner/operators from your region are with the management of the MPA network?



Discussion Summary Participants expressed general dissatisfaction with the management of the MPA network. They believe managers have failed to communicate information about MPA monitoring studies and how this data informs management decisions, which creates a major source of dissatisfaction. Participants were also frustrated by the MPA implementation process, which they believed lacked meaningful consideration of local fishing community input and that the outcome was predetermined.

- One participant believed MPA management was satisfactory, but MPA enforcement is poor, leading to their overall sense of dissatisfaction with MPA management.
- Two participants discussed the MPA network implementation process and felt opportunities for fishing community input during these meetings were hollow gestures.
- Participants were dissatisfied by the lack of involvement of fishing community members in ongoing MPA management.

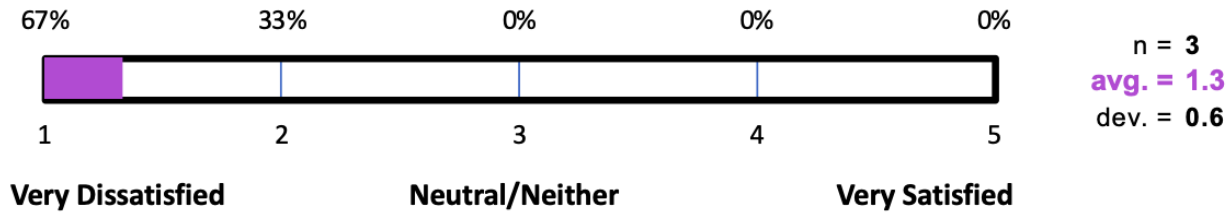
Participant Quotes

“There's been no communication, there's been no information that's been put out on what has been going on with the MPAs. There's been no fishermen involvement that I have seen in the management of what's going on in the MPAs. Yes, we were involved with setting up the MPAs originally, but after that, there's been nothing.”

“As far as management of changes for the MPAs, there's been no communication. [Local fishing community members] were on the committee to initiate the MPA and personally, [I believe] they were robbed of it. [The managers] asked [the fishing community], ‘What do you think would be a good idea?’ And they came into another meeting and they said, ‘OK, this is how it's going to be.’ So even though there was involvement, there wasn't any involvement. They pretty much had it set on how they were going to do it.”

“Management, in my mind, is doing a good job, enforcement isn't.”

14. MPA Monitoring Overall, how satisfied do you think CPFV owner/operators from your region are with the monitoring of the MPA network?



Discussion Summary Participants were dissatisfied or very dissatisfied with the monitoring of the MPA network. They expressed frustration about the poor communication about MPA monitoring results, and the lack of inclusion of the CPFV fishing community in MPA monitoring studies.

- One participant expressed concerns about monitoring studies where biologists rather than fishermen determine the type of bait used for the studies, which they believed does not give an accurate picture of fish presence. The participant suggested fishermen involvement in study design would produce greater accuracy given their years of experience fishing the local habitat.
- One participant was frustrated with the lack of communication of MPA monitoring results, and said they haven't been informed of results even though they participate in MPA monitoring activities. They also said they don't have time to participate in forums or small meetings related to MPA monitoring due to the demands of running their business, but wished for more information about monitoring results through communications other than meetings. They said they didn't know of MPA monitoring studies, other than this project, that consider fishermen's perspectives.

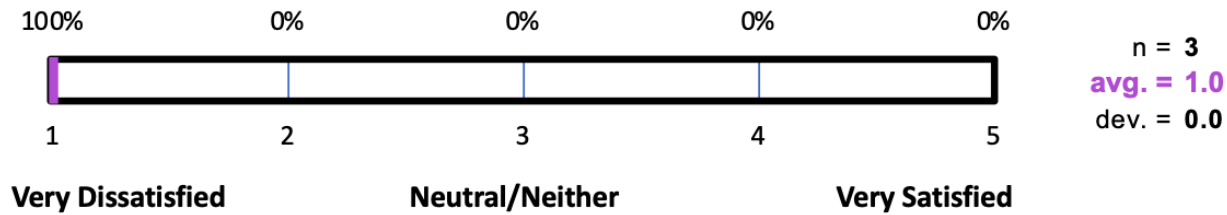
Participant Quotes

"There's been no involvement and there's been no information put out on any of these [MPA monitoring] topics."

"Well, based off of talking to [a local boat captain who runs MPA monitoring study fishing trips], when they do the research, [the passengers fishing for the studies are] told what and how to fish. Well, when you're fishing in shallow water like the MPAs, being told how to fish a spot is not going to tell you what's there. If they're feeding on jellyfish, they're going to feed on one [type of bait]. If they're feeding on short bellies, they're going to feed on another [type of bait]. So your numbers are skewed based off of how you're collecting the data. If you want to see what is on the stone itself, don't leave it to the biologists, you got to leave it to the fishermen... at the same time, when you're talking about Mother Nature and currents, feed, water temperature... things change every day, every hour. You can have a fish feeding on one part of the tide, and you hit the top of the tide even offshore, and you're not going to get bit at all."

"I'm part of the [MPA monitoring] program and I'm not hearing what's doing better, what's doing worse, things like that. Collaboration with fishermen - I know that there's occasionally a forum that goes on. I don't know what goes on. I can't take a day off to go meet with a few people. And I don't know what they're talking about, what's working, what's not working. And I don't know anyone that's talking about inclusion of fishermen's perspectives. I think it's like what [name redacted] said: 'You know what? Here's the way we're going to do it. Shut up and fish.'"

15. MPA Enforcement Overall, how satisfied do you think CPFV owner/operators from your region are with the enforcement of MPAs?



Discussion Summary All participants were very dissatisfied with the enforcement of MPAs.

- One participant recounted discussions they had with CDFW wardens about the need for enforcement of illegal fishing at the Farallon Islands, and the warden said enforcement there was prohibitively expensive.
- One participant described their understanding of challenges related to the enforcement of MPAs, where boats fishing illegally in MPAs stop fishing when they see enforcement boats. This participant offered to take CDFW wardens on their vessel to observe the illegal fishing in MPAs, but their offer wasn't accepted.
- One participant expressed frustration about the lack of enforcement of private boats they see fishing in the MPAs, and said CPFV owner/operators help inform vessels that are fishing illegally, but often these vessel operators ignore them or rudely disregard their communication efforts. Another participant said they have been specifically asked to help enforce MPAs within their role as CPFV owner/operator.

Participant Quotes

"There is no enforcement, and I don't know how we can put a positive spin on this. We can't polish this turd. But there's nothing left to say. We don't have enforcement. I think we're wasting all [folks' on this meeting] time to pretend that there is."

"The state is not going to pay for the patrol boat to run out there every day and chase everybody away. So why have something that they can't even enforce?"

"Well, for the Farallon Islands, I've spoken to a number of [CDFW] wardens and they said, 'You don't understand. To run out [to the Islands,] unless we're already on a run to check salmon boats or crab pots, it's not monetarily feasible for us to run out there. You're looking at \$7,000 in labor costs, not including fuel, just to get to the Islands to maybe catch one person.'"

"In talking with various wardens about enforcement, when they come out, they equate themselves to like a leaf blower: wherever they go, boats scatter and leave the area. So it's difficult for them to have any kind of enforcement because of that effect. I have offered many times to take them on board my boat in uniform or out of uniform, I don't care. I want to take them out and show them this and so they can then do enforcement undercover, under the guise of whatever they want. I am more than willing to use my vessel and my services to provide that to them, and I have yet to have any of them ever respond to me."

"One of the big issues around [CPFV clientele buying their own private boats] is that, yes, they buy a boat, but they still don't know what they're doing. And one of the problems with the

MPAs is that there is a lack of enforcement, people go up fishing in these areas. Every time we go off of the Montara MPA, invariably there's at least one or two boats always fishing in there. And you know, we try and stop and get on the PA and tell them, 'You're fishing in a closed area.' And most of them just flip us off. A lot of people don't even bother anymore because you just might as well be talking to a door."

"The only people that really end up enforcing [the MPAs] is the CPFVs. The [Farallon] Islands are always calling me, asking me to chase the boats out of there and it's taken away from my day."

16. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Several participants expressed their desire for the development of artificial reefs on the West Coast as a method to create accessible fish habitat to compensate for fishing grounds lost to MPAs.

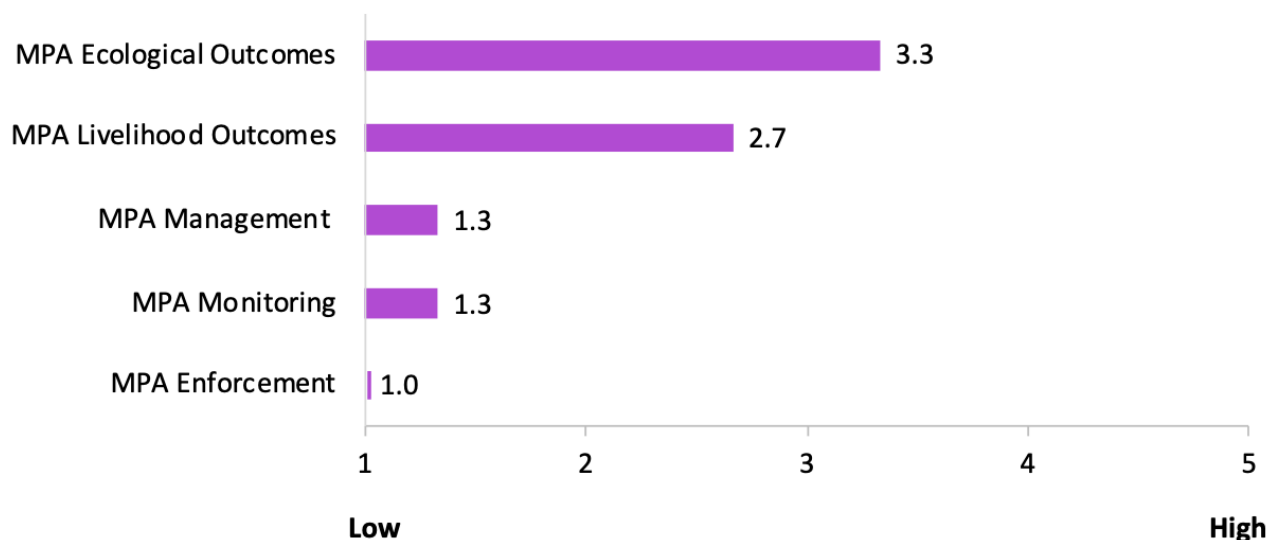
- Participants discussed artificial reefs in other parts of the world where fish populations have established in locations where there isn't naturally occurring habitat structure.

Participant Quotes

"An idea I postulated at a meeting in Washington, D.C., was... take just the amount of habitat structure [that is no longer accessible to fishing, due to closures], and give us that [same amount of habitat area to fish] by creating structure elsewhere... I talked with one of the West Coast managers, [who told me that] on the East Coast they drop [ship] wrecks routinely to create habitat, and that brings in massive quantities of fish."

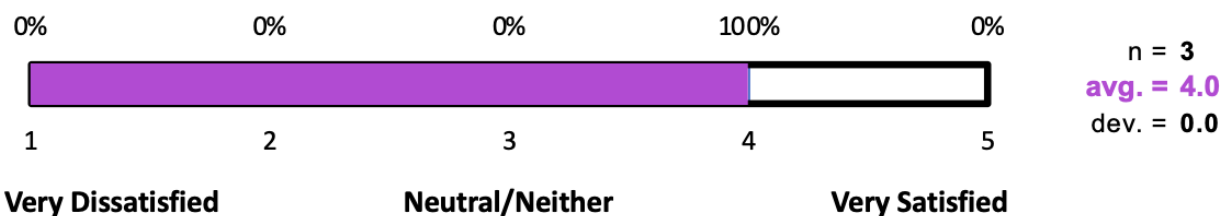
"I was at a diving meeting... and we were trying to get some of the Liberty ships from the Bay brought down to Monterey to increase structure and habitat down there. [There have been studies about the] positive effects of how this will increase fisheries population. One prime example is... the oil derricks off Santa Barbara, there are so many fish in there, they can't get their ROV [remotely operated vehicle] through [...] It has been proven time and time again. You go to the Caribbean, look where they've sunk ships for diving and the amount of benthic life along with fisheries increases in these is tremendous. Another prime example is the *Looking Back*, which is a ship outside by the shipping lanes, out in the middle of nowhere. But you can go out there and see and catch a tremendous amount of fish off of that wreck. [...] It's not going to happen before I'm out of the industry here, but I would certainly like to see this fishery exist and thrive for my grandchild. I want him to be able to own my boat, take my boat out and operate my boat in a fishery that is sustainable and healthy."

Perceptions of MPAs, Average Responses for Questions 10-11a, 13-15



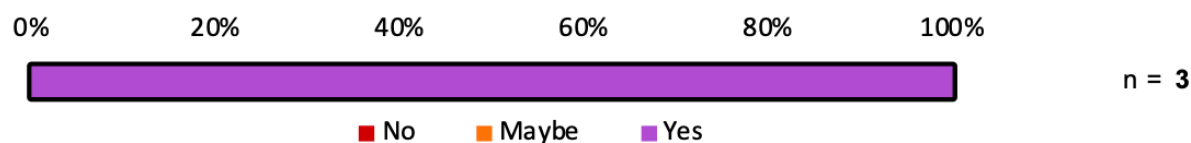
Feedback on Virtual Process

17a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



17b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the purple bar indicates the percent of participants who responded 'Yes' to question 17b. If participants responded 'No' or 'Maybe,' a red or orange bar would appear, respectively.)



17c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary (Participants did not share additional comments about their experience in the focus group.)

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Passenger Fishing Vessel Fishing Communities in Relation to the MPA Network

Members of Santa Barbara and Ventura/Channel Islands Area's Commercial Passenger Fishing Vessel Community

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with commercial fishermen and Commercial Passenger Fishing Vessel (CPFV) owner/operators throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and CPFV fishing communities in California, including impacts from MPAs. A key goal of this study is to convey commercial fishermen's and CPFV owner/operators' perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of CPFV owner/operators were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, income, allocation of resources, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where commercial fishermen and CPFV owner/operators were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Regional CPFV Port Group: Santa Barbara and Ventura/Channel Islands Area Ports

Date: Thursday, March 11, 2021

Participants: Jason Diamond, John Fuqua, Shawn Steward

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

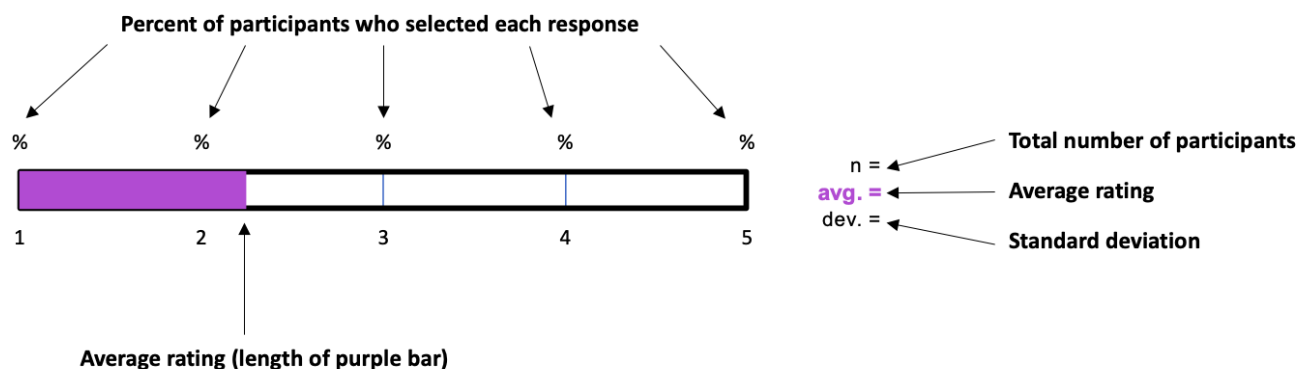
Overview

On March 11, 2021, three CPFV owner/operators out of the Santa Barbara and Ventura/Channel Islands area participated in the twenty-second focus group conversation overall/fifth CPFV focus group conversation. A detailed summary of the conversation is captured below, including:

- the final numerical scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

Guidance for Interpreting Figures

There are 14 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 11 and 20 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

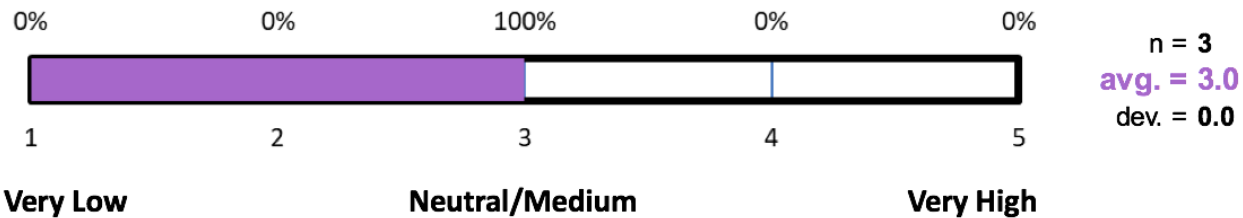
- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: South Coast](#)
 - [Summary of Findings from Baseline Monitoring of Marine Protected Areas, 2011–2015, South Coast](#)
- [CDFW's MPA Management webpage](#)
- [CDFW's MPA Monitoring webpage](#)
- [Sea Grant's Marine Protected Area Monitoring Program - current statewide monitoring projects, 2019-2021](#)

Our Project Team would like to express our appreciation to the three Santa Barbara and Ventura/Channel Islands area CPFV owner/operators—Jason Diamond, John Fuqua, and Shawn Steward—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resources - Present State Overall, how would you rate the current health and sustainability of the marine resources on which CPFV owner/operators from this region rely?



Discussion Summary Participants believed current marine resource health is mainly a factor of natural fluctuations within the species they primarily target, including sea bass, yellowtail, and groundfish.

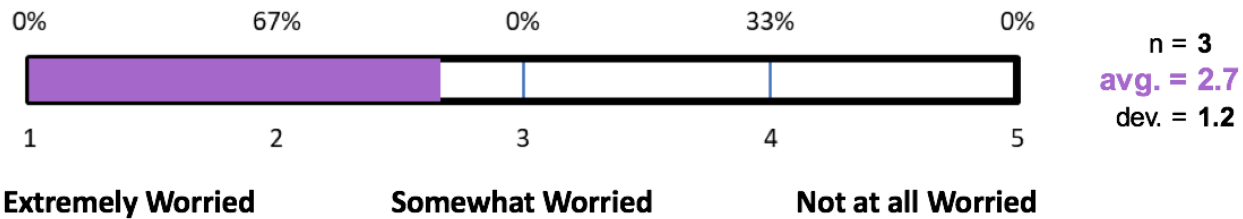
- One participant highlighted that fishermen have to navigate the natural fluctuations that exist with ocean and fishery cycles. However, this did not cause them to have concerns about marine resources' current health and sustainability in the local area.
- Several participants indicated marine resource health is more deficient in areas where there is more fishing pressure.

Participant Quotes

"And the reason I chose 'Neutral' is only based on natural fluctuations because of what we've seen over the last ten years with sea bass, yellowtail, [and] groundfish opportunities. But it's all based on natural fluctuations."

"I think it [marine resource health] has to do with those two different zones that we fish as well because [name redacted] is in an area that has a lot less pressure than the areas that [name redacted] and I fish. And so we see a little bit differently. But it is absolutely the same thing... he just doesn't have the pressure that we have."

2. Marine Resources - Future Concerns Overall, how worried are CPFV owner/operators from your region about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary Overall, participants were less worried about the future health of the ocean and the fisheries they target. However, they expressed their concerns and fears about the future of the marine resources they rely on due to perceived mismanagement.

- One participant explained they are moderately worried about the future because of how the resources have been managed in recent years by the California Department of Fish and Wildlife (CDFW). They expressed concerns with CDFW using MPAs as a fisheries management tool, which they believe does not constitute good/adaptive management.
- One participant identified the political pressures from conservation organizations that advocate for more significant fisheries restrictions, leading to more mismanagement of the fisheries, as the biggest concern for the future of marine resources.

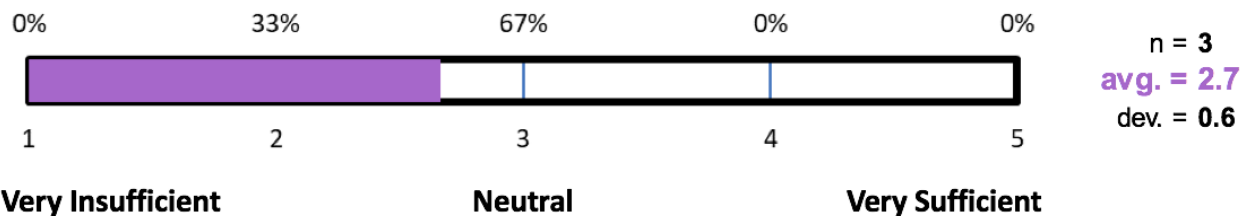
Participant Quotes

“Everybody took all the best spots we can possibly fish, right? I mean, if you took any more, there wouldn't be anything left. The literally best spots you could possibly fish on our coast have been taken. I don't think any more is going to get taken, so I'm not so worried about it at the moment, but I could be extremely worried if something came down the pike. [...] And that would mess up our sustainability.”

“...that ocean [is] awesome out there... you've never seen so many whales, dolphins, birds... the fishing's really good. [You] should check it out sometime, rather than just people just sitting around going 'the ocean [is] screwed.' It isn't! It's amazing!”

Well-Being, Economic

3. Income from Fishing Overall, how would you rate the income that CPFV owner/operators (including crew) from your port earn from fishing to support livelihoods?



Discussion Summary Participants discussed the trade-offs of making a living from fishing alone versus the need for additional income sources and increasing costs of doing business.

- One participant shared that crew members can typically make enough money to pay bills but struggle to save for the future; boat owners can make enough to put away as savings. However, one participant recently had to supplement their income with commercial lobster fishing to set aside money for savings.
- Multiple participants highlighted the imbalance between what CPFV owner/operators make as a living compared to the costs of doing business. Fuel, maintenance, crew wages, and materials were all identified as costs that continue to increase while revenue stays the same or decreases (i.e., due to COVID-19 impacts).

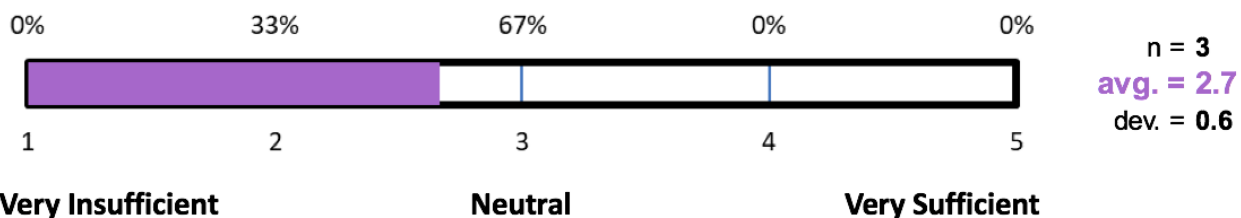
Participant Quotes

“I mean, as crew members, I think they make enough to pay the bills. Not so much put away for their futures. As far as myself, I mean, I can make a good livelihood, a decent livelihood - not a good livelihood, a decent livelihood - pay bills, put a bit of money away. As an owner... I've had to supplement [my income] by lobster fishing now... during the slower time of the year to make ends [meet], to make sure I could put away for my future down the road.”

“I chose ‘Insufficient’ just because of the cost of everything from fuel to parts and pieces, to the maintenance of boats and everything. I mean, that really digs into our day-to-day profit, including crew. And I'm not knocking crew because I feel crew should get fair pay. But with mandated minimum wage and stuff like that, we haven't been able to keep our prices at the same increase.”

“The cost of just steel for metalwork, which entails pumps and whatever else we do, went up 20 percent this year from what it has been. And that's just one item that we use. Metal is... every time something breaks, it's part of it. So that's just one item... the margins for profit - should nothing break during the day - is very, very slim.”

4. Allocation of Resources Overall, how would you rate the allocation of fish resources for CPFV fisheries in terms of supporting the CPFV industry?



Discussion Summary Participants expressed frustration with the management, particularly concerning MPAs, and allocation of several fisheries they rely on, specifically rockfish. For a more detailed discussion related to MPAs and how they have affected CPFV owner/operators' access to marine resources, please see the **Discussion Summary** on page 13.

- One participant stated the restrictions CPFV owner/operators face (e.g., Rockfish Conservation Areas (RCAs) and MPAs) make it difficult for them to access available resources and make a profit from fishing.
- One participant highlighted the need for a new vermilion rockfish stock assessment. They expressed frustration regarding the lack of urgency among agency leadership to conduct the

assessment, which has continued to greatly affect the CPFV fleet due to limited bag limits resulting from this inaction.

- One participant stated the CPFV industry has minimal impact on the resource due to management restrictions currently in place (e.g., limits on the number of hooks allowed per fishing line) and low bag limits.

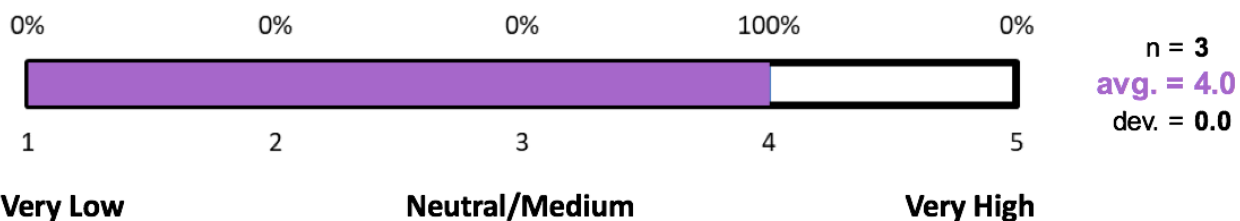
Participant Quotes

“Insufficient. You take MPAs, rockfish closures, or bag limits into consideration. I mean, the bottom line is the more restrictive [CDFW makes us]... the harder it is to do our job, the harder it is to make a profit from it and the more pressure [is] put in smaller areas.”

“[We’re seeing] the biggest explosion of reds [vermillion rockfish] out there, and we get to keep five. That is the strangest thing I’ve ever seen, you know, and there’s also like, what, three thousand miles of closed area? I mean, full of fish. Kind of nuts, don’t you think?”

“For God’s sakes, we’re only allowed two hooks. Our limits are very low. We’re taking people fishing. Why do we get hammered so hard? We’re not killing it. We’re not killing the ocean, and it’s not being killed. It’s awesome out there. I don’t understand what the concern is. That ocean is better than it’s been in a long time out there... and I just can’t understand why we keep getting hammered on stuff. We’re allowed two hooks, two hooks! We used to be allowed like 15 or unlimited! Two. That’s it. Everybody’s allowed like ten fish of one species and another ten combined in others. I mean, big deal. We cannot hammer the ocean with what we can take. Sorry, we can’t.”

5. COVID-19 Impacts *How disruptive do you think COVID-19 has been to your region’s CPFV fishing operations?*



Discussion Summary Participants said COVID-19 has highly disrupted their businesses. Impacts have included closing their operations down for extended periods, increased costs to purchase personal protective equipment (PPE), and a high degree of uncertainty that adds financial and mental pressure and hardship.

- One participant said they have experienced impacts related to changes in available crew members. The remaining staff has been working without days off, which has led to a high degree of burnout.
- One participant closed their operations for a few weeks over the December holidays to ensure the crew could have time to quarantine and spend time with their families.
- Several participants mentioned the increased costs they have incurred to pay for PPE (i.e., gloves, masks, foggers) which has led to thousands of dollars spent to keep their crew and clients safe.

- Since Ventura County manages Channel Islands Harbor, one participant shared that they have experienced delays in accessing docks, marinas, and landings in Ventura County due to county-level COVID-19 protocol.
- One participant highlighted the increase of private vessels purchased during the pandemic as another source of pressure on marine resources in the Santa Barbara and Ventura/Channel Islands area.

Participant Quotes

“The stress level with our crew members and everybody else is huge, man. I mean, it really sucks: are we going to get shut down any minute? What's going to happen? And we did get shut down. Then we got opened back up again. There are threats of shutting down again. I mean, that really wears on everybody for sure.”

“We've had to run short on crew members. We've had to stress our crew members out because of the work every single day. There is really not much time off... I mean, [the crew] just busted it out, you know. Thank God they did.”

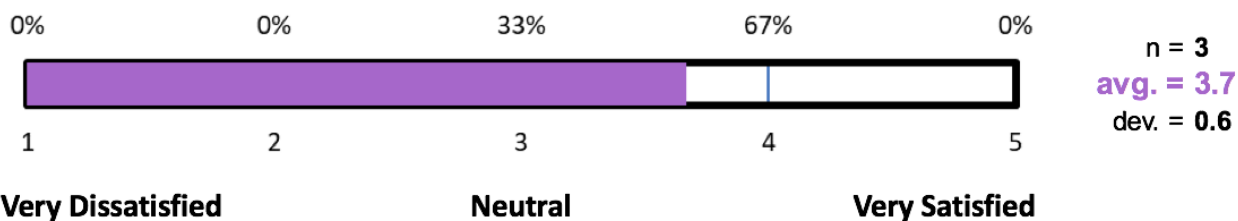
“I ended up shutting the boat down the second week of December just so [my crew] had time to quarantine so they could be with their families during Christmas and, you know, obviously lost revenue with all that and everything else. But it was definitely a tough thing, a tough decision to make.”

“I bought foggers, I got gallons of sanicide, I got gloves, boxes and boxes, which are really hard to find, and they ain't cheap anymore. Lots of masks. I mean, you name it, we got it, you know. I got a shed full of stuff. And we use that stuff daily, hourly, minute-ly sometimes. That stuff costs a fortune. You know, I can't tell you how many thousands of dollars [were] spent...”

“Now [from pandemic fatigue/things starting to open up again,] people are getting outside more. Now we have an increase in private boats, too. It's not just CPFVs that are affecting those other areas [outside of MPAs].”

Well-Being, Social/Political

6. Job Satisfaction Overall, how satisfied do you think CPFV owner/operators from the region are with their jobs?



Discussion Summary Participants shared they were generally satisfied with their jobs but expressed some dissatisfaction with consistently advocating for their jobs and future fishing opportunities due to current constraints on fishing access.

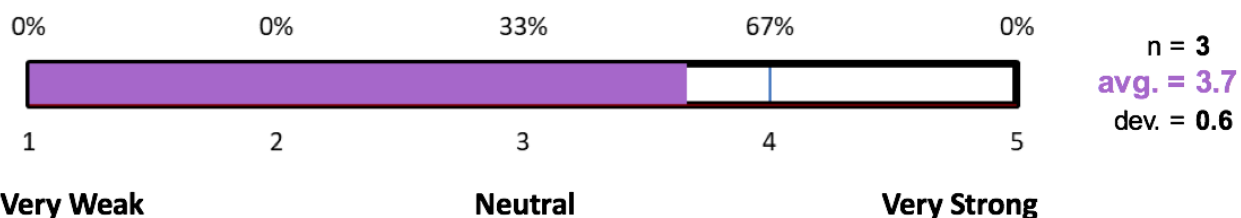
- One participant explained that they love their job. For over 40 years, they have been taking people to fish and offering a positive on-the-water experience and connection between customers and the state's natural resources.
- One participant highlighted that while they are happy with their job, there are significant stresses due to the closing of sport fishing areas. The impacts of the closures coupled with weather constraints lead to additional pressure to ensure clients are satisfied customers.

Participant Quotes

"I'd go 'Very Satisfied' if it wasn't for this type of crap we have to do all the time, to be honest with you. [It's] the fighting that sucks. Why can't we just take people fishing? It's not like we're killing the ocean or anything. We should be the last concern on everybody's mind. For some reason, we seem to be a frickin' focal point, which I have no idea why. We take families and people fishing, you know... they catch a bag of fish... take them home for dinner. They love it. Why are we beating people up over this? I don't understand. [...] We just want to take people fishing and show them an amazing day on the ocean, that's all."

"I'm happy with the job. I mean, I do love what I do, but there's stress there, and a lot of it comes back to the same thing that we have to deal with: weather, [and] we're limited to our little bubble of where we're actually allowed to fish. It really makes for very, very tough, stressful days. And so that'd be my main complaint, really. Weather is the weather, but being that we can't fish where we might have a lead of fish in or have an opportunity to put a good day together, it really makes it tough. That's definitely a stressful part of it."

7. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) among CPFV owner/operators in your region?



Discussion Summary Participants shared a range of views regarding the strength of social relationships between CPFV owner/operators in the Santa Barbara and Ventura/Channel Islands area. While fisherman-to-fisherman relationships are generally strong, participants felt that some CPFV owner/operators do not conduct themselves in a manner that helps to strengthen and uplift the sport fleet overall.

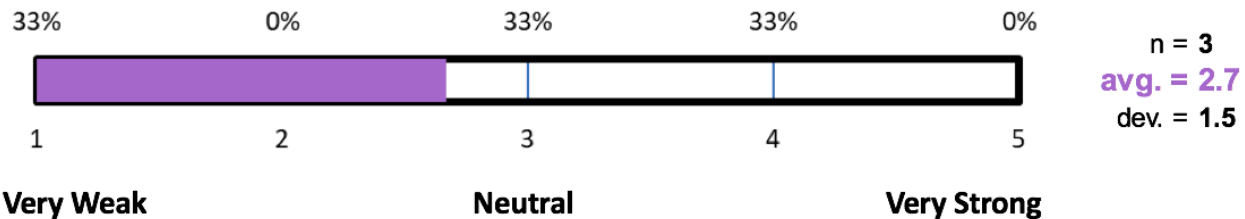
- One participant said they have made life-long friends in the industry but believed some CPFV owner/operators do not have the entire industry's best interest in mind when making decisions on and off the water.
- One participant explained that individuals choose not to adhere to rules and regulations, affecting everyone in the industry.

Participant Quotes

"I mean, no matter what happens with us, we still come together, you know, no matter what."

"I picked 'Strong.' And the only reason I didn't pick 'Very Strong' is because there are some owner/operators that we've dealt with in the last several years that [don't] have the group as a whole in their best interest, and I'm putting that in a polite way. [...] We've had certain individuals in our fleet that don't follow the rules, and when they don't follow the rules, it affects everyone."

8. Social Relationships - External Overall, how would you rate the strength of relationships between CPFV owner/operators in your region and external groups who could help support industry needs?



Discussion Summary Participants offered a range of perspectives regarding the strength of relationships with external groups, from very weak to strong.

- One participant expressed frustration towards resource managers and decision-makers for not collecting, reviewing, and translating data to update the current management of rockfishes (e.g., bocaccio, cowcod, vermillion, etc.).
- One participant said the industry has solid communications with managers and decision-makers due to the Sportfishing Association of California (SAC) leadership, which helps to advance the industry's priorities.
- One participant expressed concerns that the management of the CPFV fleet mirrors the commercial industry. They shared that rod and reel/chart fishing does not have as much of an impact on the resource and habitat as some commercial sectors do.
- One participant felt there are open lines of communication with managers on a surface level. However, they highlighted the need for improved relationships about establishing lasting trust and engaging in a meaningful exchange of listening and learning between fishermen and managers.

Participant Quotes

"Very weak, because they [managers] don't listen. And [name redacted] brought up a point with the vermilions, which is a red snapper: there's a strong population of that, and the data they've collected over the last several years, it's wrong. Right? It's wrong to the point where they say that we increased our catches by three hundred percent as a group, and they wouldn't listen to us to say that's an impossible feat. You know, even though we are aware that there's a lot of vermilions there. [...] When the bocaccio and the rockfish studies came down, we said there's plenty of the species of fish. There's no need to close it. Same thing with the cowcod. They said it's going to take 99 years [to recover]. Twenty, 15 years later, they say 'oh, you guys were right.' Time and time again, we've been proven correct in our assessment of what is there. And they never listen to it, not once did they listen to it, so that's why I put 'Very Weak.'"

"I'm going to say our relationship is strong, but it doesn't mean anything's right about it. We have good communication with these people. SAC, our sportfishing association, is super strong - that's an external group, of course. But I'm just saying we do have good communication [with

managers]. The fact is they don't listen to us. We're out there every day. They're not. And the fact that that stock assessment did not get done right away is weird. I mean, like, why are you dragging your feet? They're not low on money. Oh, my gosh. The amount of fishing licenses, our fleet... it's unbelievable how much money they make off that.”

Well-Being, Overall/Additional Comments

9. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's CPFV fisheries?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants offered additional suggestions for how managers could partner with the CPFV fleet, including more vital trust, relationships, and mutual understanding to promote more collaboration.

- One participant emphasized the importance of a proper stock assessment schedule that fishermen could track and rely on for the best available science and information.
- Several participants highlighted the importance of managers listening and trusting the information they receive from fishermen who are on the water every day and have valuable knowledge to share. One participant emphasized the importance of decision-makers to consider fishermen’s perspectives and expertise to help inform fisheries management decisions.
 - A participant shared concerns about the disconnect between management decisions and what fishermen are experiencing on the water (i.e., the abundance of certain species).
 - Several participants encouraged resources managers, decision-makers, and researchers to involve the sport fleet when interpreting and analyzing data.
- One participant encouraged CDFW to conduct more data collection as an agency (i.e., rely less on outside research groups). Additionally, they believed CDFW should stand behind their work and avoid the possibility of external entities influencing available data.

Participant Quotes

“I think a proper stock assessment schedule should be done. That's for sure.”

“State, local agencies: the agencies need to listen; they just need to listen to us. And I'm not saying they don't listen to us verbatim, but there needs to be more cooperation and understanding...”

“They expected us to catch other fish. They expect us to catch other fish like the big Boscós, the chilies. Maybe more grouper, stuff like that. They expected us to catch more of that stuff rather than [vermillion rockfish].”

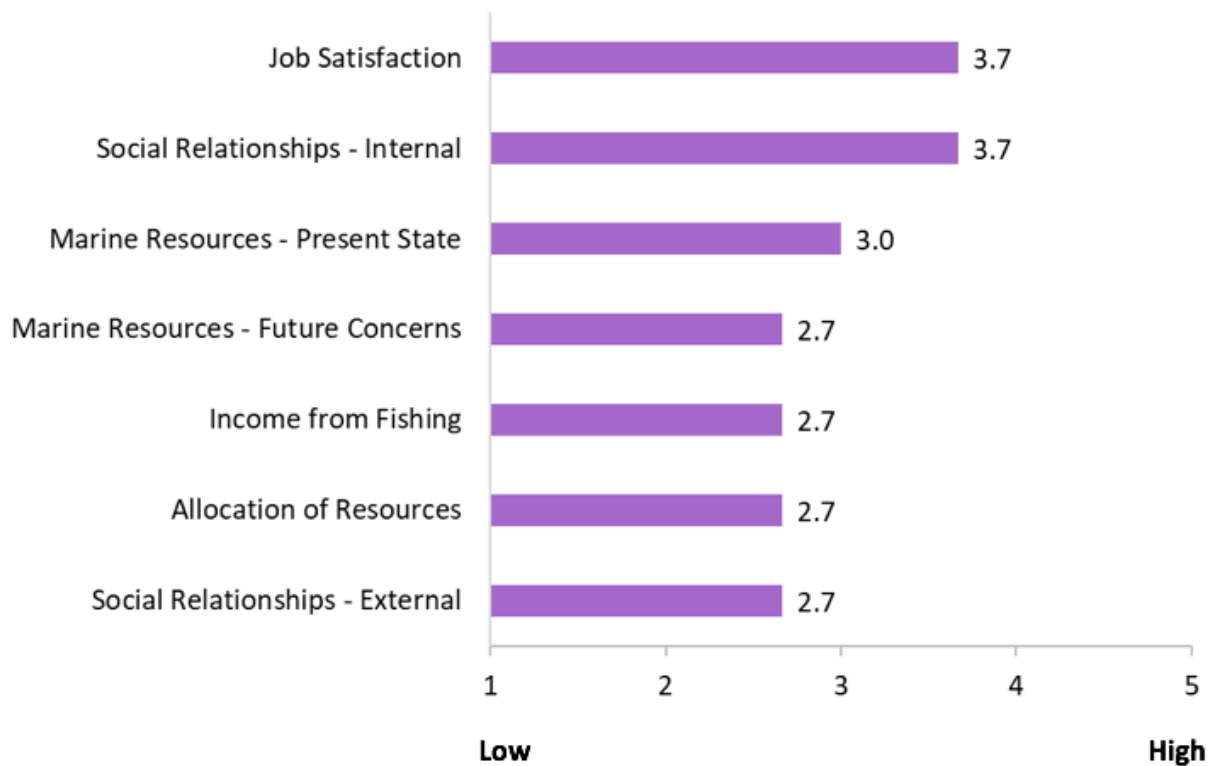
“That would be way cool: that a group [of researchers or resource managers] would say ‘hey, are we looking at this right in the eyes of a fisherman or in the eyes of the group that uses it?’

We've never had that [type of engagement]; we've never had anything like that... no, they've never said 'what do you guys think about this?' So that would be cool."

"And I also think that [CDFW], they need to stand behind their work and not let outside influences skew their... mess stuff up. [...] Sure, charter us, use us more often... [but] I don't see [managers] doing [on the water research]."

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-4, 6-8

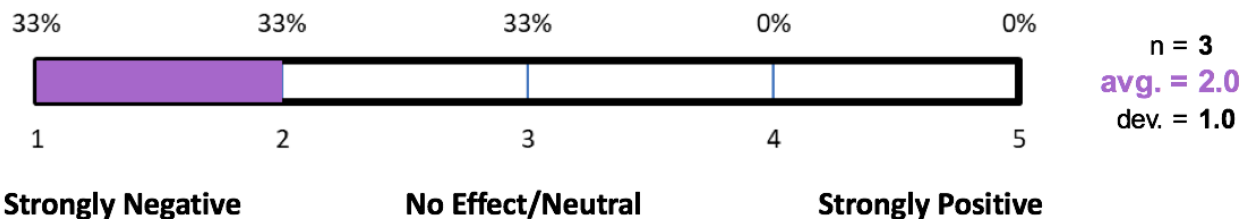
(Note: The following figure does not include the average rating for question 5. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

10. MPA Ecological Outcomes How would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants shared an array of views about the effect that the MPA network has had on the health of marine ecosystems in the Santa Barbara and Ventura/Channel Islands area, ranging from strongly negative to no effect.

- Several participants highlighted the difficulty of quantifying the effects of MPAs on marine resource health without access to MPA monitoring information. Acquiring this information could help fishermen understand what is happening inside MPAs, particularly regarding the abundance, size, and density of priority species.
 - One participant who has participated in local MPA monitoring studies shared their observations of marine resource health inside versus outside MPAs, including differences in fish abundance. They acknowledged that fish tend to reside in areas where there is less pressure, such as MPAs. However, they felt the areas that remain open to fishing are experiencing heavier fishing pressure because there are such limited areas to fish. If more areas were open and available, fishermen would rotate between areas and mitigate their potential impact.
 - Another participant stated they did not see differences in marine resource health inside versus outside MPAs.
- One participant stated they are not seeing any single species doing better than another due to the MPAs, nor are they observing the spillover effect promoted during the MPA implementation process. They felt the protected areas negatively affected fish stocks because of increased fishing pressure outside of the MPAs.
 - While recognizing the potential for spillover, one participant questioned if fish were moving out of the MPAs since fish prefer to stay in larger schools (i.e., under increased protection). The participant imagined higher concentrations of certain fish species in the closures.

Participant Quotes

"I can't say if it's [the MPA network] done anything because I can't fish there anymore."

"I put 'Negative,' but you can't quantify that. There's no way that anyone can quantify what effect [the MPA network] has had [on marine resource health] outside of [an MPA] because you don't know where we would be now without them."

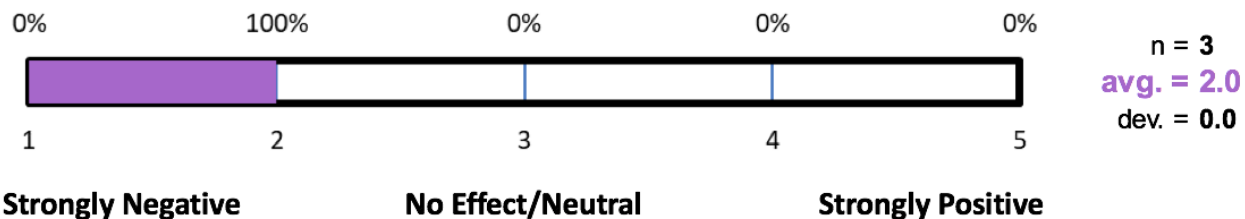
“So it had to be a negative effect because [the MPAs] put more pressure outside [the closures].”

“No, the spillover effect never happens. That would be the exact question that you're asking: are we seeing increased stocks because these areas have been protected? No.”

“So I can honestly say that there’s definitely a stronghold of fish in the closure. Do they move? Absolutely. We know that. But do they reside more where there's less pressure? Yes. But what had happened is, when we lost those areas, the other side of the island got absolutely pummeled because that's the only place we could fish.”

“For us, with the monitoring and stuff like that that we do... there's not much of a difference between inside and out, really. Not much of a difference at all. There really isn't. And some days there is a difference. Some days there isn't, 'cuz fish move. They got tails. They swim around a little bit, you know. I'll fish ridges in the closure and out of the closure. Some days it's going to be really good in that closure. Some days it can be better outside the closure. Those fish move around a little bit, or that area is fired up or something like that or whatever. And I see no management out there. I see no other boats checkin' out... anything. You know, I see nobody. There is nobody checking MPAs. Period. Basically, they're closed off, and that's it.”

11a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for CPFV owner/operators from your region to earn a living?



Strongly Negative

No Effect/Neutral

Strongly Positive

Discussion Summary Please see the **Discussion Summary** following question 11b. *MPA Effects - Overall* which summarizes the conversations related to questions 11a and 11b.

11b. MPA Effects - Overall What other types of effects or impacts have CPFV owner/operators from your region experienced from MPA implementation?

Discussion Summary Participants rated MPA network impacts on fishermen’s livelihoods as unfavorable. They identified adverse effects from MPAs, including limiting the on-the-water experience for their customers and longer travel time to fishing grounds.

- Several participants discussed the economic impacts of MPAs on their livelihoods and business models, including increased fuel costs due to needing to travel more considerable distances on a single-day trip due to MPAs placed close to ports/harbors. Multiple participants spoke about the increases in their emissions as a result of extended travel time.
- Participants discussed their shared concerns about the impact their increased overhead would have on their customers, who are bearing the burden of increases in ticket prices/day rates.
- One fisherman shared their experience of leaving the Santa Barbara and Ventura/Channel Islands area when the MPAs first went into effect due to economic hardship. They worked on several fishing vessels in California and out of state to fish year-round and make a viable

income. Once they had a family, they had to find another primary non-fishing job to make ends meet. This participant felt concerned about the feasibility of their son becoming a fisherman.

- One participant shared that there are generally fewer concerns with MPA impacts in years where the fish are moving outside the closures and are accessible at the surface. However, during years/seasons when the fish are at the bottom and not moving across reefs, the MPAs directly affect their ability to make a living.

Participant Quotes

"I mean, the fuel, the cost increase of everything, you know, and just the added pressure outside the MPAs, I mean, there's been no positive influence on the sportfishing community by MPAs."

"I'm not running 13 miles anymore. I'm running 26, 30, 30 plus miles to go fishing now. I'm burning two, three times the fuel that I would normally burn."

"And also, we don't carry rich people; we carry, you know, guys that work for a living, kind of like ourselves who have a, they have a job. Some people don't have a job. We carry people that can't go out in their own boat and go fishing by themselves and do all that stuff. We carry people that want to come out and catch a nice bag of fish and have a good time at a decent price. If we priced ourselves much higher, people wouldn't come."

"I'm not sure I want my son at 15 right now to be following in my footsteps in this because I see how hard it is to make a living right now. I'd rather have him go fishing because he wants to go fishing, not because he has to."

MPAs, Discussion of Specific MPAs

12. MPA Effects - MPA Specific Which MPAs have had the most impact on CPFV owner/operators from your region and why?

Discussion Summary Participants shared that MPAs in their area have restricted much of their fishing grounds. While all of the MPAs in the area have affected CPFV owner/operators, participants highlighted the MPAs located on the Northern Channel Islands as well as those just north/south of the Santa Barbara and Channel Islands harbors. Participants also noted that before MPA implementation, charter boats did not spend all of their time in the areas now restricted to sport fishing. Instead, charter boats visited these areas in rotation or at certain times of the year to reduce pressure in other areas. Due to the MPAs, this seasonal rotation of fishing effort is no longer available.

- *Anacapa Island State Marine Reserve (SMR), Anacapa Island State Marine Conservation Area (SMCA), Footprint SMR, Scorpion SMR, Gull Island SMR, and Carrington Point SMR:* Participants reported these MPAs were prime fishing grounds for Santa Barbara and Channel Islands-based CPFV owner/operators. Closing these areas to sportfishing has had damaging impacts on the local fleet. One participant highlighted that before the state MPAs went into effect, most of these areas provided charter boats with accessible fishing grounds that consistently made a successful day-trip for passengers.

- *San Miguel Island MPAs (Harris Point SMR, Richardson Rock SMR, and Judith Rock SMR)*: San Miguel Island was an important area to the local CPFV fleet before the MPA designations. One participant stated that day boats and charter boats with overnight accommodations would frequent the island before the MPAs.
- *Point Conception SMR*: One participant expressed frustration with the MPA at Point Conception now that they have an overnight boat that could accommodate passengers to make the more extended trip. Since this area is no longer accessible, they have not traveled to this area.
- *Naples SMCA*: One participant shared this MPA has restricted their access to a productive mainland area that would provide customers with a range of fishing experiences on a shorter day trip. Because of this, they have had to change their business model (i.e., length of trip offered to customers and associated costs).
- *Point Dume SMR and SMCA*: Before these MPAs, participants noted that charter boats from Santa Barbara and Channel Islands Harbors would travel to Point Dume since it provided productive mainland fishing grounds for sea bass and pelagic finfish.

Participant Quotes

"And, you know, here's something else to pinpoint that needs to be brought up about MLPAs and the lack of us having abilities to fish in those: we didn't live there all the time. We used those as part of our repertoire for making the day. Like [name redacted] said, in the springtime, we would spend some time on the Footprint. In the fall, we would spend a lot more time on the front side of Anacapa. In midsummer, we'd be at the Scorpion closure down the coast to Point Dume; we didn't live in these places. [...] We just used some part of it. And that's what we were getting at, is when you take chunks like that out of your greater overall area, you put more pressure everywhere else..."

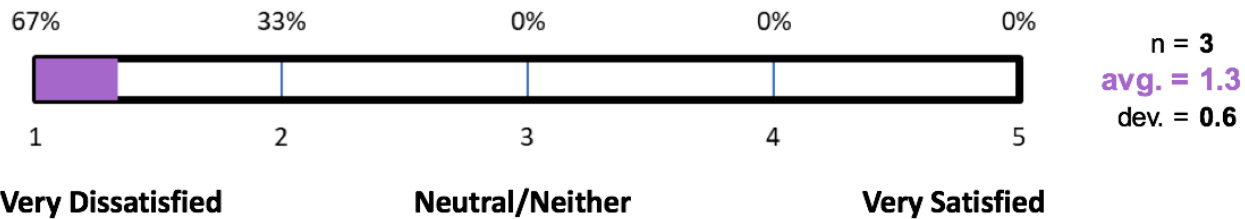
"The Carrington [Point SMR], the Gull [Island SMR], the Footprint [SMR], and the frontside of Anacapa [Island]: those were places you can just go to. You knew you could go there and make your living."

"The bottom structure in those areas [Carrington Point SMR, Gull Island SMR, Footprint SMR, and the Anacapa Island closures] and what it gave us for options was huge. And when they took it and just put all the pressure on everything else, and now it's paying the price."

"I mean, [losing] Naples really sucks more than anything... we can't Calico bass fish anymore. That was so good, and I can't fish it anymore. It's just a stupid little reef out in the middle of nowhere that comes up to like, I don't know, what, 30 feet or something. Yeah, I mean, it was awesome, covered in kelp; it was really cool. Caught a lot of Calico and other stuff, you know, some white sea bass, halibut, yellowtail, stuff like that, but that's gone. So I just don't do that anymore. I don't carry surface fishermen anymore."

MPAs, Management

13. MPA Management Overall, how satisfied do you think CPFV owner/operators from your region are with the management of the MPA network?



Discussion Summary Participants expressed their dissatisfaction with the management of the MPA network. There was general confusion on MPA goals and the evaluation of MPA success, and concerns about the MPA planning process for the Northern Channel Islands.

- One participant felt the MPA designation process was highly politicized and that there is an inaccurate picture of the effects MPAs have had on the fishing industry. They highlighted the process did not consider sufficient socioeconomic information when putting MPA restrictions into place, specifically the cumulative impacts of other fishing restrictions/area closures already in place.
 - Another participant expressed concerns about the placement of MPAs in high-value areas close to the port.
- Another participant expressed frustration that CDFW did not reevaluate the existing Northern Channel Islands MPAs established before the statewide MPA network during the South Coast planning process for the coastal MPAs. They recounted an understanding among fishermen that CDFW would update the Northern Channel Islands MPAs to align with the same size/spacing requirements as the coastal MPAs that would eventually make up the statewide MPA network.
- Participants shared they are unclear of how CDFW and other decision-makers have defined the goals, metrics, and indicators of success for MPA management. One participant shared they would like to see management changes, such as rotating sport fishermen's access in MPAs, to relieve fishing pressure on other areas.

Participant Quotes

"... what I'm concerned about is how do they quantify the socioeconomic impact of just the MPAs during those data years (1992-2020) without taking into consideration the impacts of the rockfish closures. Because they're hand in hand, all that stuff works together. So that's what I mean, there's no single data point that can give you what the MPAs cost the fishermen or didn't cost the fishermen because you have rockfish closures, you have more restrictions, you have things opening up, you have years of phenomenal yellowtail fishing or surface fishing in the Southern California Bight. And there's a lot of things, other than just logbook data and commercial landings."

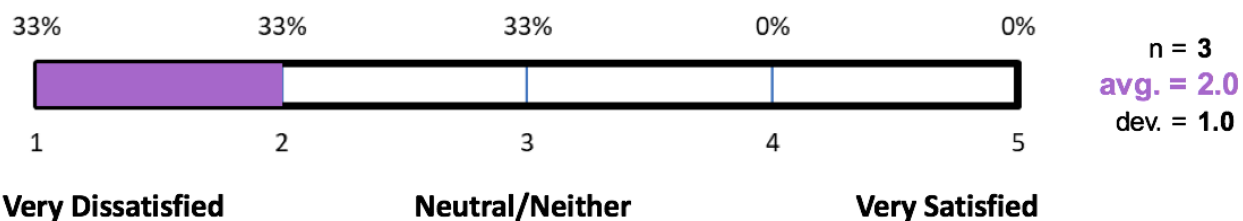
"When they made the MPAs at the islands, they did not take the socioeconomic impacts into consideration. They made them. They made them close [nearby]. They sat us down in a room and said 'what can you guys not live without?' We all put it on a chart. And two-thirds of what we put on the chart is what they took [...] there's no cooperation with us."

“You know, we don't want to be politicians, right? Last thing I wanted to be was a politician, that's for sure.”

“Well, I think it touches on what... [CDFW's] goals were. A lot of it was not just cowcod, but rockfish in general, bocaccio, stuff like that. But you don't see any of that stuff in the Scorpion closure. You never saw any of those things in the Scorpion closures, like certain places they put those [MPAs] didn't make sense for their overall goal when they put all the other blocks in there. Fairness? I mean, I didn't think it was fair when they did it the way they did it.”

“... you really see the difference between the side of the island [Anacapa] that gets all the pressure and the side of the island that has been closed. And that's great for management reasons. But the way I see it is maybe open something else up and give something else a break, because what it has done is when all those closures went into effect, it just dogpiled boats into a smaller area. And it kind of defeats the purpose of the thing.”

14. MPA Monitoring Overall, how satisfied do you think CPFV owner/operators from your region are with the monitoring of the MPA network?



Discussion Summary Participants cited the lack of clear monitoring goals and managers’ failure to communicate information from monitoring studies as significant sources of dissatisfaction with the monitoring of the MPA network.

- Participants expressed appreciation for the opportunity to be involved in a monitoring project studying MPA impacts on marine resources inside and outside the MPAs around Santa Barbara and Channel Islands Harbors, including the Northern Channel Islands.
 - One participant shared their support for using on-the-water monitoring projects to assess MPAs rather than relying solely on logbook and/or landings data.
- One participant expressed concern that, even with their participation in the monitoring work, they remained unclear about the project’s goals and how decision-makers will use the collected information.
- One participant stated that aside from the research they are involved in, they don’t see other monitoring work or other research boats on the water. One participant reiterated that they would like to see CDFW more involved in MPA-related research.
- Two participants suggested monitoring occur more than once a year to capture the monthly and seasonal changes on the water.

Participant Quotes

“[...] I mean, I'm happy about the fact we get the opportunities to help do some of the science. I would like to see more of it be in effect for what we're trying to achieve here.”

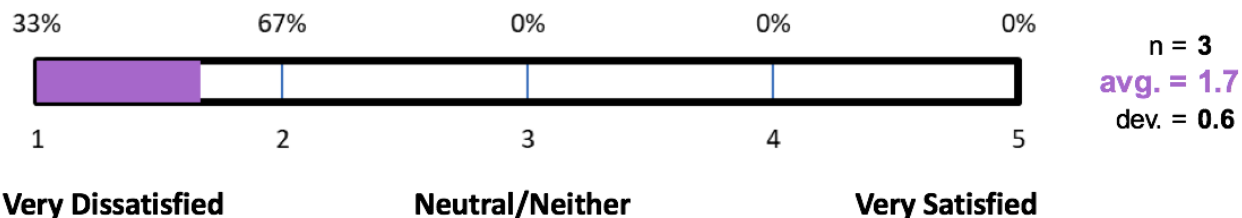
"I'm glad we're doing these rod and reel samples with the Caselle labs and the Mirage, and the Amigo and the Newport guys. That, to me, is the right way to do it: rod and reel, as opposed to just the landings from the commercial guys, because I think it's two different methods of fishing [commercial versus CPFV], basically is what it boils down to."

"There's been no communication, right? There was no baseline study of what was there prior to the MPAs taking place. So you have nowhere to know, obviously. And then opportunities for involvement? Obviously, there's some because the guys do some research with it; I know the other guys do, but what goals? There's never been anything put out to us CPFV guys [about] what the goals of these are. So the only goal we know is to keep us out."

"The other thing is like there's scientific stuff, they do these studies with [names redacted], but they do them a couple of times a year in the summertime. They should be done monthly."

"Things change so much in our seasons, I mean, we see it: things sometimes just don't bite at certain times of the year. We know that you go up the north side later in the year, and you can go up the back in the summer - it's just always different. So we get the same data at the same time of year. That's great for that area, maybe. But if you did that same type of data and try to do it somewhere else, you might not have the same results. The data would change."

15. MPA Enforcement Overall, how satisfied do you think CPFV owner/operators from your region are with the enforcement of MPAs?



Discussion Summary All participants were dissatisfied with CDFW's enforcement of MPAs.

- Participants expressed concern about the number of private recreational fishing boats they observe fishing in local MPAs. They shared their frustrations with CDFW Law Enforcement Division (LED) not responding to calls from CPFV owner/operators reporting vessels in closed areas.
- One participant highlighted the negative impacts that the entire sportfishing community experiences when a select few choose to fish in MPAs. They acknowledged that many charter boats "fish the line"; however, they expressed concern for those choosing to fish in the MPAs to generate a more significant profit without any LED repercussions.
- One participant said the local CPFV fleet does an excellent job of self-policing themselves, using peer pressure to encourage owner/operators to follow MPA rules.

Participant Quotes

"I just see a lot of other people fishing in those closures sometimes. Not me: private boats out there fishing. They ain't gonna get in any trouble. There's a bunch of illegal charter boat operations running out of our harbor right now fishing in those places. They just fish right in the middle of that sucker. It's crazy. And nobody's there to bust them. Even if I called somebody,

there ain't nobody around to go get them, it's not like you can dial 911 and go 'there's a person fishing in the closure.'"

"I see enforcement at [Santa Cruz] island from the Park Service, but not from Fish and Wildlife. And we have instances where people fish - other CPFVs - in years past have fished in those closures a lot. I'm not going to say that I'm perfect, that I haven't ever pushed a line, because I have. But when guys make a living in those things, it's a problem."

16. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants reiterated their concerns and frustrations about the MPA network and MPA management, including the lack of adaptive management of the Northern Channel Islands MPAs.

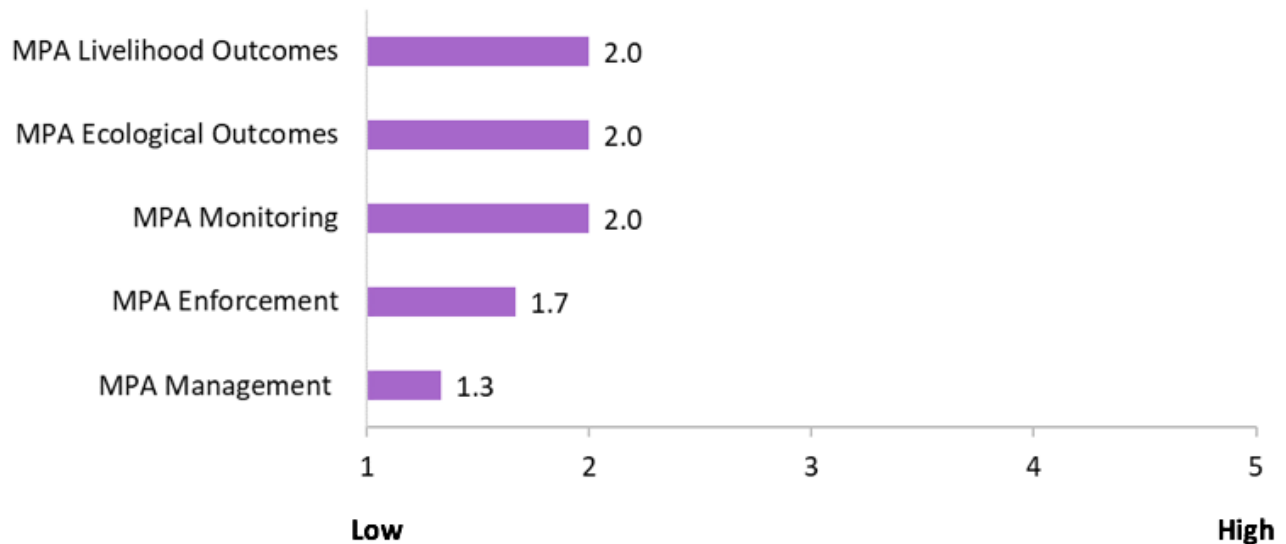
- Participants emphasized the negative impacts of MPAs on their operations, livelihoods, and overall well-being.
- One participant stated they could live with the current MPAs. However, they emphasized that any increase in current MPA sizes or creation of additional MPAs would have detrimental impacts.

Participant Quotes

"They've all impacted us. We just got done talking about that, didn't we? I mean, they literally have all impacted us. We can't fish there anymore. We have to burn more fuel. We have to go more places. I mean, we're out there longer. Sometimes it's really gnarly. You know, it's not that cool. That's all. It's not cool."

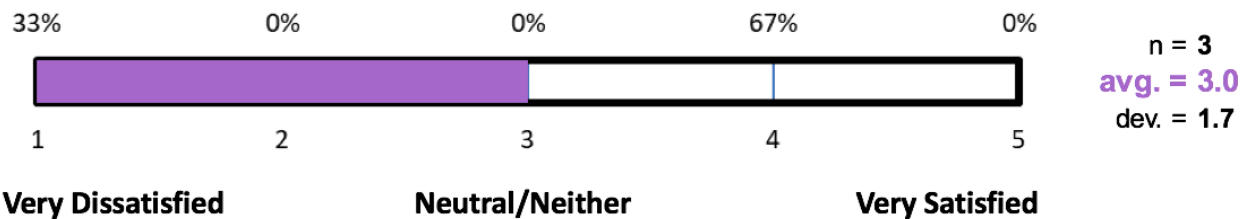
"The other thing is it [the MPA network] has depleted stocks in other places. In the grand scheme, we told them when they were making them 'you cannot close large areas and not expect increased pressure in other areas.'"

Perceptions of MPAs, Average Responses for Questions 10-11a, 13-15



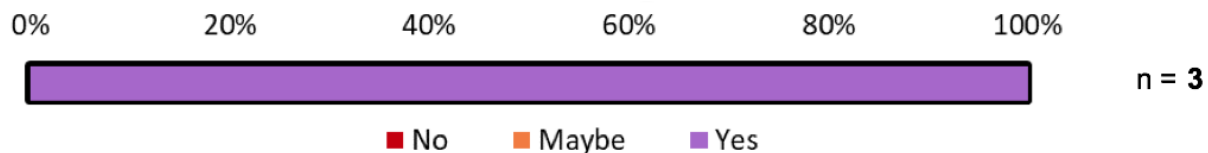
Feedback on Virtual Process

17a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



17b. Willingness to Participate in Virtual Process in Future Would you be open to participating in a virtual focus group or meeting like this in the future?

(Note: For the following figure, the length of the purple bar indicates the percent of participants who responded 'Yes' to question 17b. If participants responded 'No' or 'Maybe,' a red or orange bar would appear, respectively.)



17c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary Participants' satisfaction with the virtual process ranged from dissatisfied to satisfied. However, all participants expressed a willingness to participate in a virtual focus group discussion in the future.

- One participant shared that they tried to secure additional participation from other CPFV owner/operators. However, without the explicit endorsement of this project by SAC, sport fishermen were reluctant to participate.
- Participants expressed appreciation for the neutrality of the Project Team and the facilitation of the focus group discussion.

Participant Quotes

"When people call me, always my first thought is I'm skeptic[al] and I usually get a hold of the sport fishing [association - SAC]... I'll say 'hey, this is what the people are asking [the CPFV fleet to participate in].' I'm not sure if we want to go down this road because, like we said, [these types of discussions] always come back and bite us."

Long-term Marine Protected Area Socioeconomic Monitoring Program for Commercial and Commercial Passenger Fishing Vessel Fisheries in the State of California

Perspectives on the Health and Well-being of California's Commercial Passenger Fishing Vessel Fishing Communities in Relation to the MPA Network

Members of Orange County/San Diego Area's Commercial Passenger Fishing Vessel Community

The Marine Protected Area (MPA) Human Uses Project Team¹ anticipates hosting over 25 virtual focus group conversations with commercial fishermen and Commercial Passenger Fishing Vessel (CPFV) owner/operators throughout California from July 2020 through Spring 2021.² The information shared during these discussions is a core component of a study to gather and communicate information about the health and well-being of commercial and CPFV fishing communities in California, including impacts from MPAs. A key goal of this study is to convey commercial fishermen's and CPFV owner/operators' perspectives about the unique challenges and opportunities that fishing communities are facing to managers and decision-makers through a series of summaries and other products. The results of this study will be made available to inform discussions about MPA and fisheries management, including California's 10-year MPA network performance review.

For each focus group, a small number of CPFV owner/operators were brought together to:

- provide their perspectives on their fishing community's health and well-being, including environmental conditions, income, allocation of resources, and social and political relationships, including impacts from MPAs; and
- share feedback about their focus group experience to help improve the process for future focus groups.

The focus groups included quantitative questions where commercial fishermen and CPFV owner/operators were asked to score their port on various topics, and an open-ended qualitative discussion followed each question. This document summarizes both quantitative and qualitative findings from the focus group. More details about the methods used for each focus group discussion, including questions asked to participants and the approach to recruiting focus group participants, is available on the Project Team's website, <https://mpahumanuses.com/>. The website also hosts focus group conversation summaries and an interactive data explorer, which will be components of the final products developed upon completion of this project in 2021. For questions about this project, including focus group engagement and the content of this document, please contact us at hello@mpahumanuses.com.

Regional CPFV Port Group: Orange County/San Diego Area Ports

Date: Friday, November 20, 2020

¹ Consisting of Humboldt State University researchers, Ecotrust, and Strategic Earth Consulting

² Previous versions of the summaries from other ports suggest there would be 30 focus groups through February 2021. The project has since evolved based on the needs of the fishing community and is reflected in all summaries moving forward.

Participants: Don Brockman, Kris Karpow, Markus Medak, Ernie Prieto, Mike Thompson, Brian Woolley

Overview

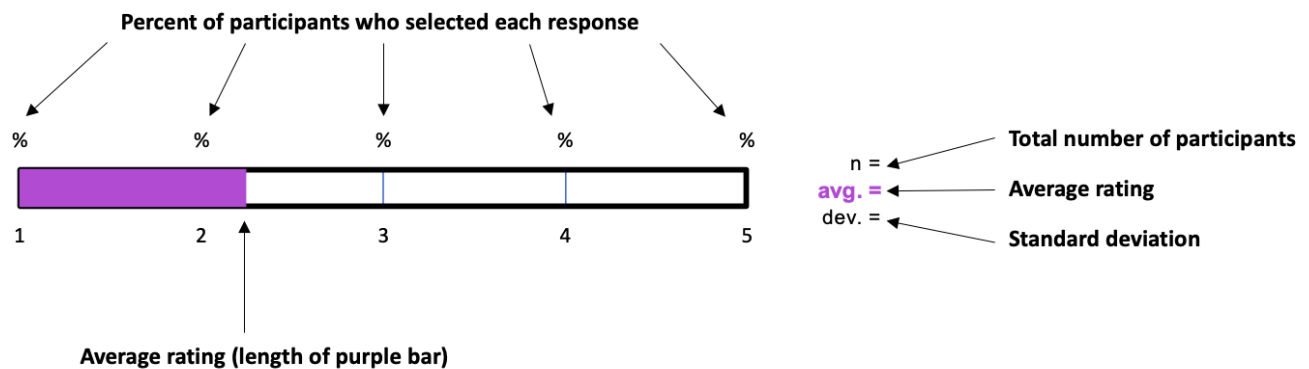
On November 20, 2020, six* CPFV owner/operators out of the Orange County/San Diego area participated in the fifteenth focus group conversation overall/second CPFV focus group conversation. A detailed summary of the conversation is captured below, including:

- the final numerical scores (gathered via Zoom polls) for questions asked within each theme;
- a summary of participants' perceptions, insights, and perspectives related to each question; and
- direct quotes from participants that help to illustrate sentiments in their own words.

*While all six participants provided ratings and discussed their responses during the well-being portion of the focus group, one participant decided not to participate in the MPA session. The MPA section in this document (beginning on page 13) reflects the ratings and responses from the five individuals who participated in the MPA portion of the focus group.

Guidance for Interpreting Figures

There are 14 figures displaying participant responses for questions that had a numerical/quantitative component. In those figures, the percentages located directly above the bar (between 1 (low) and 5 (high)) represent the percent of participants in the focus group who selected that response. The total number of focus group participants is labeled 'n' to the right of each figure. The length of the purple bar indicates the average rating for each question, also labeled 'avg.' to the right, and 'dev.' refers to standard deviation or the extent to which scores deviated from one another. See below for an example figure. There are also two figures on pages 13 and 21 that display the average responses for each question in the well-being and MPA sections, respectively, from highest to lowest.



In addition to providing feedback to help refine our process and approach for future focus groups, participants requested several resources be shared with them, including:

- [California Fisheries Data Explorer](#): This interactive site allows users to visualize commercial landings data (i.e., number of fishermen, pounds of fish landed, and revenue from fish landed) and CPFV logbook data (i.e., number of anglers, vessels, trips, and fish caught from specific fisheries and ports).
- [MPA Baseline Monitoring Program: South Coast](#)

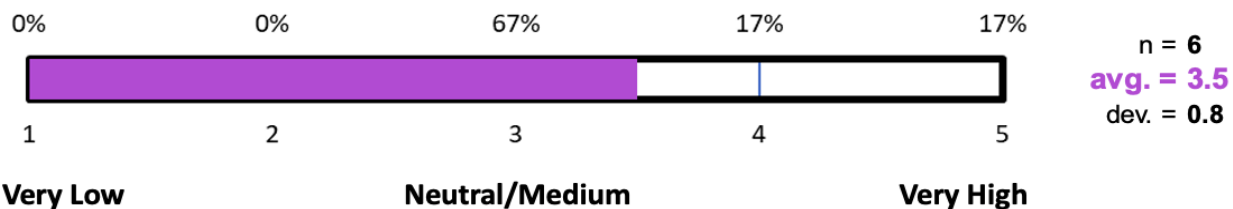
- [Summary of Findings from Baseline Monitoring of Marine Protected Areas \(2011–2015\), South Coast](#)
- [Marine Protected Area Monitoring Program, 2019–2021](#)
- An article about Governor Newsom’s [Executive Order related to protected areas and the 30x30 initiative](#)

Our Project Team would like to express our appreciation to the six Orange County/San Diego area CPFV owner/operators—Don Brockman, Kris Karpow, Markus Medak, Ernie Prieto, Mike Thompson, and Brian Woolley—for their time and contributions to the focus group conversation.

Perceptions of Fishing Community Well-being

Well-Being, Environmental

1. Marine Resources - Present State Overall, how would you rate the current health and sustainability of the marine resources on which CPFV owner/operators from this region rely?



Discussion Summary Participants’ perspectives on current marine resource health ranged from neutral/medium to very high. One participant attributed their ‘Neutral/Medium’ response to a lack of opportunity to sufficiently access marine resources as a result of management restrictions, and felt they didn’t have enough information to accurately answer this question as a result.

- One participant believed global warming is a result of natural fluctuations that exist within ocean and fishery cycles. However, this did not cause them to have concerns about the current health and sustainability of local marine resources.
- One participant stated marine resource health is better now compared to decades past due to human interventions that have helped to improve water quality (i.e., removal of pesticides from harbor sediments).

Participant Quotes

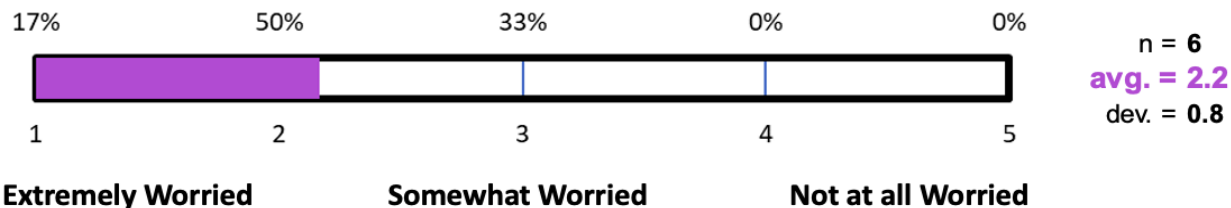
“I can’t answer that question because 60 percent of the really good habitat near my harbor is unavailable to me. So I have no idea what’s going on in prime fishing areas. I can’t answer this question. [I selected ‘Neutral/Medium’], it’s basically a nonanswer. I just don’t think it’s fair to ask a question about my opinion of the health of the resource when I don’t have access to half of it, so I have no way of knowing.”

“You know, in 40 years [...] we have watched this ocean evolve with cold water, it evolves with warm water. And you know what? The resources change every year. And yes, we’re not allowed to go fish certain areas [...] But we’ve learned to adapt around that. The ocean is a wonderful place. And we have fish right now because of global warming or whatever it is, I just call it

cycles, everything changes. And that's the nice thing about the ocean. Everyone thought the bonito were gone and we have all these bonito this year. As long as we give it [the ocean] a chance, we keep the water clean, we don't abuse it [...] it's going to change and we have to change with it. And we do have a lot more people here in California than we've ever had. So we have to adapt with that.”

“In my opinion, you know, I've seen better fishin’ the last 10 years than I did when I was a deckhand in San Pedro [...] in 1975. If [the boat] got 25 rockfish for the day, we were lucky. But you know, fishing in a hole in California, my opinion is it’s better now than it was 40 years ago. And that's because of everybody working together, you know, cleaning up the harbors. No bait would ever have lived in Newport Harbor [then]. Now we have a bait receiver, and bait actually lives there. Army Corps of Engineers dredged the harbor out, got rid of all the DDT. And here we are.”

2. Marine Resources - Future Concerns Overall, how worried are CPFV owner/operators from your region about the future long-term health and sustainability of the marine resource populations on which you rely?



Discussion Summary All participants were worried about the future health of the ocean and the fisheries they target, though their concerns varied in severity. Expressed concerns focused on both the future health of marine resources and perceived ineffectiveness of fishery management.

- One participant said San Diego fishermen are dependent on Highly Migratory Species (HMS) and was very worried about the long-term health of yellowfin tuna stocks. They were concerned about the potential impacts of industrial scale fishing and international management of HMS on local fishermen and CPFV businesses.
- One participant was concerned about the combined effects of future ocean changes and poor fishery management which they believed may negatively affect their business.
 - Another participant was concerned that fisheries managers have an incorrect understanding of bait fish (i.e., sardine) population health, which they believe leads to unnecessary harvest restrictions.
- One participant expressed some concern about rockfish populations in the long-term, though they were only somewhat worried about the overall future health and sustainability of marine resources. They added they are confident in the resiliency of fishermen to deal with potential future resource challenges.

Participant Quotes

“I went with ‘Extremely Worried’ for a couple of reasons. One, future ocean change, we have no control over that, right? It's going to happen regardless of how we want it to work out. It's going to do its own thing. And that kind of falls also on the effectiveness of the management. We don't have any control of how that's going to go.”

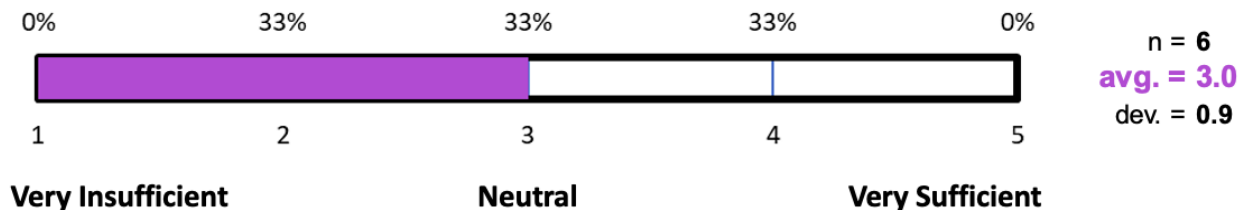
“Even though they may not be impacted at this time, I’m worried about the health of some of the resources. I’m from down here in San Diego, we are almost exclusively dependent on Highly Migratory Species [...] I’m personally quite worried about the health of the yellowfin tuna resource. The problem is it’s a Highly Migratory Species. The bulk of the fishing that’s going on is industrial-style fishing in countries other than the United States, and so it’s completely out of our control, but it’s got the potential to have huge impacts on us. And so I’m worried about that. I’d say that’s one of my biggest worries.”

“Well, I’m kind of worried because I’m afraid that because everyone is worried about global warming or they are not allowing us access to bait because they don’t see the bait, because they have antiquated science. That makes me worried. I don’t worry about the ocean, per se, I worry about somebody sitting at a desk in Sacramento making a decision about it. I mean, we’ve been fighting to be able to catch sardines for bait when there’s more sardines in the ocean [now than before]. But the sardines, because of the warm water, are not where the scientists are looking. And we can’t even show them to them, which is ridiculous. [...] We want our voices heard and we don’t want to be just shuffled under something.”

“I worry about [...] our impact on rockfish. To really get a good understanding of the health of the species or the ocean is difficult. I’m moderately worried or somewhat worried about the future because we’re fishermen, we are definitely a resilient group, and we tend to figure out a way to get through a lot of things. We have a lot of things thrown at us all the time. So that is probably what’s kept me from being extremely worried that I have confidence in ourselves as fishermen, as being ‘survivors,’ for lack of a better term.”

Well-Being, Economic

3. Income from Fishing Overall, how would you rate the income that CPFV owner/operators (including crew) from your port earn from fishing to support livelihoods?



Discussion Summary Participants’ views about CPFV owner/operators’ income to support livelihoods varied from insufficient to sufficient. They identified differences in CPFV operations between Orange County and San Diego ports, which affects CPFV owner/operators’ income.

- One participant believed local CPFV owner/operators tend to supplement their income from CPFV operations with income earned from commercial fishing.
- One participant said some San Diego-based CPFV owner/operators and crew often relocate outside of California during the off-season, at which point they rely on income earned during peak CPFV season.

- One participant said deckhands in Dana Point are usually employed on a seasonal basis. They explained that deckhands take on other jobs in the fishing industry during the CPFV off-season.
- One participant highlighted that CPFV operations are closed in January and February due to the rockfish season closure, which encourages CPFV business employees to seek additional sources of income during the off-season. They gave the example of employees helping out on the boat to prepare for the upcoming season, and considered maintenance-type work separate from typical CPFV duties.
- One participant characterized their Newport CPFV operation as a year-round business which offers consistent employment for their crew. They explained many employees have remained with their business for many years.

Participant Quotes

"I think there are quite a few of us [CPFV owner/operators] that participate in other [commercial] fisheries as well, which I think could be considered another job. But it's got to be something that can be very flexible, because sometimes the seasons are different. I think up and down the state, there's quite a few guys that are both involved in a CPFV fleet as well as some type of commercial fishery. There's a lot of guys that fish squid when they're around, or lobsters or various other things. They're still fishing all the time, but they might not solely rely only on their CPFV revenue."

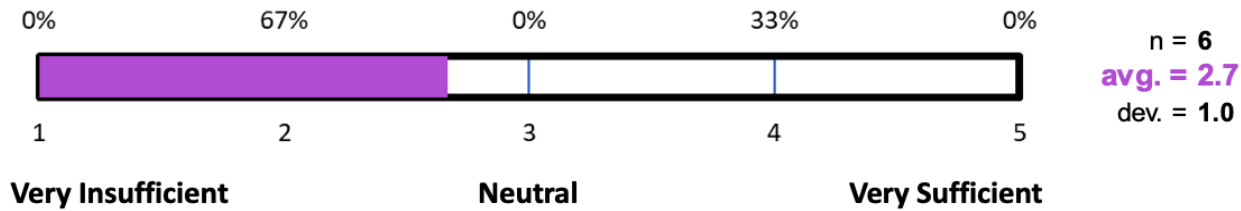
"We try to keep our captains [year-round in Dana Point]. Our deckhands can definitely be seasonal, but most of our employees are just doing one job at a time. But because they are seasonal, a lot of the guys that are more successful in the industry have a little more entrepreneurship and are working in other parts of the fishing industry in the off-season."

"We [CPFV businesses] are closed for January and February. So some of the guys do other things, whether they're working on their boat or whatever. And so it has made the business more diversified because of seasons that the CDFW [California Department of Fish and Wildlife] has shut down with rockfish."

"We shift from [running CPFV trips] to keeping the guys doing maintenance. We do a lot of maintenance when we're not fishing. So do they take second jobs? In a way they kind of do, because now if they want to work with me as a fisherman, they're going to work with us in vessel maintenance. So, it's a bit of a different job. [It's different here than in] the San Diego fleet. They come [to southern California] to work in the summer, then they go back to Arizona or wherever they go for the winter, wherever they can last the longest off the blanket they've knitted in the summertime."

"Anybody in this business doesn't have time for another job. We have employees in our business that have been working for us for 20 years. Even office staff, captains, deckhands. Deckhands come and go a little more than captains and office staff, and we try to pay them well, and that's all I can say. For example, [name redacted]'s boat, if it's an overnight trip, you'll leave at 9:00pm, get back at 8:00pm, and leave again at 9:00pm. Where's the time for another job? If you work on the half-day boat, it's a 12-hour day. So there you have it. [...] The bottom line is in Newport Beach right now, we pretty much have a year-round business."

4. Allocation of Resources Overall, how would you rate the allocation of fish resources for CPFV fisheries in terms of supporting the CPFV industry?



Discussion Summary Participants shared different views with regard to the allocation of resources for CPFV fisheries, from insufficient to sufficient.

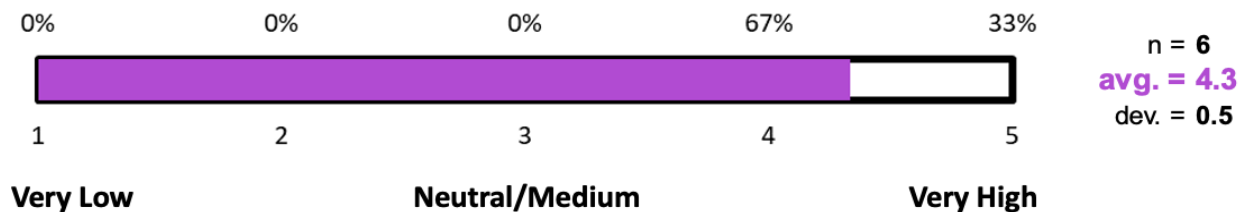
- One participant believed resource allocation was insufficient due to management restrictions that inhibit access and lead to compaction of fishing effort.
- One participant believed current California bag limits for HMS species are sufficient.

Participant Quotes

“I just went with ‘Insufficient’ based on the restrictions that did inhibit the access to the resource. I mean, just plain and simple. We're carpet-bombing one area because we can't focus efforts equally in other areas.”

“I think what happens in San Diego, at least with my business, is very different because we're dependent on Highly Migratory Species, which tend to be pretty good sized fish. And I'm of the opinion that we don't necessarily need to be taking a lot of individuals in order to satisfy our customers. I think, personally, that the current California bag limits, at least on HMS species, are more than generous. For some other species that may not be the case... I don't know. That's what I deal with, so that's what I see.”

5. COVID-19 Impacts How disruptive do you think COVID-19 has been to your region's CPFV fishing operations?



Discussion Summary Participants thought COVID-19 was highly or very highly disruptive to CPFV operations in the Orange County/San Diego area due to business closures, limited capacity following reopening, and crew shortages.

- Several participants stated their CPFV operations were negatively affected by COVID-19 protocols which prompted business closures. They explained how CPFV business picked back up again when they were allowed to reopen at 50 percent capacity, at which point trips were fully booked due to pent up demand since other recreational businesses were still closed.
- Participants discussed negative effects to CPFV revenues due to the period of full business closures, followed by half capacity trips after reopening. Several participants also said galley revenue had significantly decreased due to constraints on food service for health precautions.

They elaborated how the loss of galley revenue significantly affected CPFV operators who do not own the boats they operate, but do own the galley revenue.

- Participants shared that labor and crew challenges negatively affected CPFV operations. They heard that diminished crew labor force was an issue that affected CPFV businesses up and down the California coast.
 - One participant said they were being intentional about providing deckhands with more work opportunities in order to keep them employed.

Participant Quotes

"I think COVID was hugely disruptive, of course, just looking at the bottom line, we missed out on a very, very significant portion of our possible revenue this year when we weren't allowed to run. And there was very, very good fishing going on at the time, so that was pretty darn painful. And we were restricted in our capacity after that. So now I look at the bottom line this year compared to the previous couple, three years, and we're down very significantly, and it's 100 percent due to COVID. The fishing has been good, it's got nothing to do with the fishing. [...] [COVID-19] has very significantly impacted our bottom line."

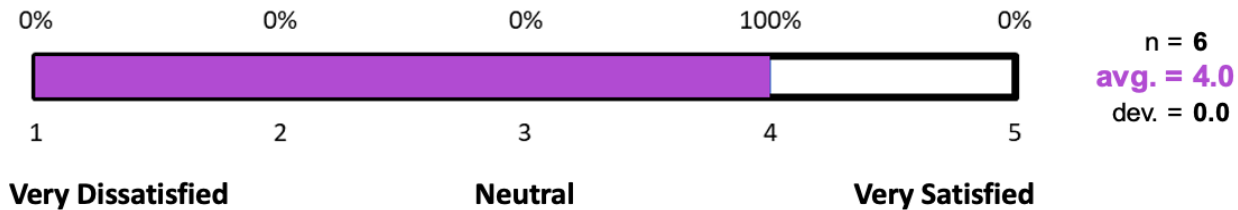
"[Impacts from COVID-19], it's kind of a double-edged sword because we were all affected by COVID when we were shut down. But as far as when we were opened up, every CPFV boat was limited to less than 50 percent of their capacity. Disneyland's closed, nobody could do anything, so we had no space available. It didn't matter what boat you were, who you were, the boats were full [reached their reduced capacity]. But they weren't full [compared to normal capacity]. We weren't using as much crew. They were 50 percent capacity, not as much galley money, but so were we affected? [...] We were at least open, but our revenues were affected."

"We're very fortunate [to be] running. We're full [at 50 percent capacity], but we normally carry 45 people a trip and we're carrying 25 people a trip. So now I employ one less deckhand. And I don't own the boat I operate, but I do own the galley. And so obviously, with 25 people compared to 45 people, income from the galley has been considerably less than it has been for the last four or five years, but [...] we're very fortunate in that we have been running every single-day this summer once we did open up [again]."

"[COVID-19 has been] highly disruptive. When we were shut down, people had to find other jobs to pay bills. Maybe they found something that paid them better or not. But [we had] crew issues, people not coming back either because they didn't want to come back or they were fearful to come back or whatever. It was disruptive as far as finding crew to work. And I think that was across the board with everybody. Crew issues were difficult [up and down the California] coast. And people maybe made more money, and didn't want to come back, like the extra \$600 a week in unemployment. So it was disruptive."

Well-Being, Social/Political

6. Job Satisfaction Overall, how satisfied do you think CPFV owner/operators from the region are with their jobs?



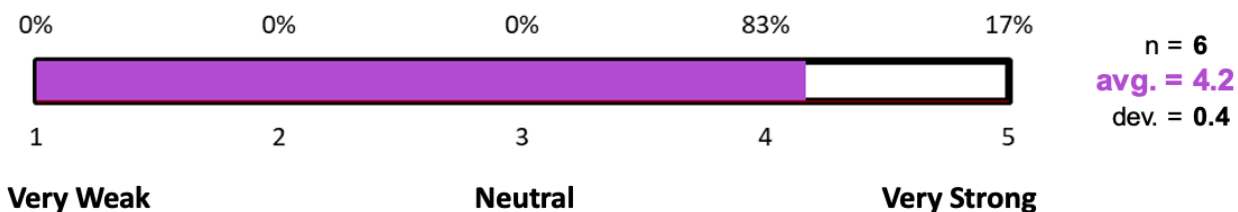
Discussion Summary All participants expressed satisfaction with their jobs in the CPFV industry.

- One participant believed other CPFV owner/operators were also satisfied with their jobs in the industry. They acknowledged how the job can be stressful, specifically due to the projected uncertainty related to job security over the next 20 years. Even so, they felt an overall sense of job satisfaction.

Participant Quotes

"I think everyone is satisfied. And if people weren't satisfied, certainly they wouldn't be here [working in the CPFV industry]. I think there are some questions with job security, possibly, right? I mean, who knows where we're going to be in 20 years? [...] It's stressful, that's part of the job, we understand it, we deal with it, we make do with it. But I think, certainly, the positives outweigh the negatives. I think everyone's satisfied, we wouldn't be doing this if there wasn't some sort of satisfaction out of it, that's for sure. I mean, we're not doing it because we're looking to get rich, right?"

7. Social Relationships - Internal Overall, how would you rate the strength of social relationships (or social capital) among CPFV owner/operators in your region?



Discussion Summary Participants believed internal relationships among CPFV owner/operators are strong or very strong due to good communication and shared interests.

- One participant said that although internal relationships among CPFV owner/operators are strong, there is some contention.
- One participant believed internal relationships among CPFV owner/operators are very strong because of CPFV owner/operators' willingness to communicate and work together; for example, to negotiate reopening plans for the CPFV industry during the COVID-19 pandemic.

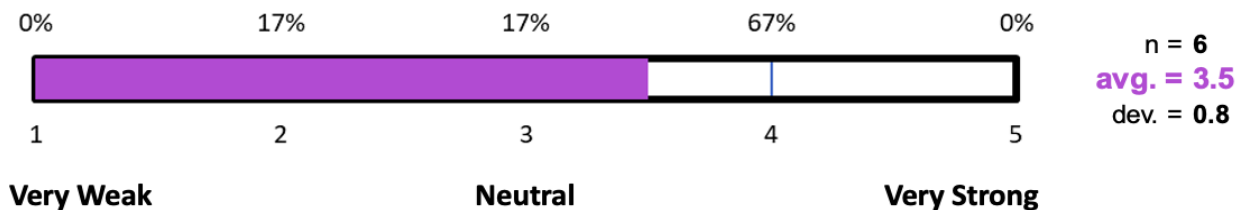
Participant Quotes

"Overall, I'd say the social relationships are pretty strong, but [when the question says] 'the ability to work together and gather together and to trust each other.' I mean, there's an old

saying: all fishermen are liars except for me and you, and I'm not too sure about you. So overall, I'd say it's pretty darn strong, but I don't know. The social relationships are good, but contentious overall... that's how I would put it.”

“I think that our organization as a whole right now is very strong and [so is] our communication. [We’ve] proved that in this reopening since COVID. We all worked really hard to make sure that we were heard and got back open again sooner than some other industries. And [our area reopened] soon compared to different counties and different tiers and different opening plans. That was all based on good communication within the [CPFV industry]. And to know that we communicate well with parts of our association [Sportfishing Association of California] in Santa Barbara County and the guys in San Francisco, it says a lot that we managed to get through this thing [COVID-19 business closures] because we were highly organized.”

8. Social Relationships - External Overall, how would you rate the strength of relationships between CPFV owner/operators in your region and external groups who could help support industry needs?



Discussion Summary Participants’ perspectives regarding relationships between CPFV owner/operators in the Orange County/San Diego area and external groups ranged from weak to strong.

- Several participants felt the local community was supportive of CPFV owner/operator interests.
- One participant expressed frustration and suspicion when discussing relationships with external groups, specifically environmental non-governmental organizations (NGOs), based on their experience participating in policy discussions, including the Marine Life Protection Act (MLPA) process, the Inter-American Tropical Tuna Commission (ITTC), and the Pacific Fisheries Management Council (PFMC).
- Several participants explained that many people in the CPFV industry either aren’t aware of ongoing policy processes or prefer not to engage in these processes. They suggested this lack of engagement negatively affects opportunities for relationship building with external groups.

Participant Quotes

“In Southern California, the sportfishing industry has a lot of support from the broader community overall. We do have some people that are adamantly against us, that's clear and they're challenging to deal with, and a lot of them are [environmental NGOs]. But, especially in San Diego, I think the Port [of San Diego] is challenging to work with, but overall, for a very long period of time, they've been quite supportive of the sportfishing industry down there overall. And there are a lot of other community organizations that have our back when we need help. They've been willing to help a lot of times and are generally quite supportive.”

“You do have to remember that after being in an advisory body to the original MLPA process and all of that, I'm very, very suspicious. [And] as a member of the Pelagic Species Advisory

Panel to the [PFMC] and a U.S. commissioner representing recreational fisheries to the ITTC, I have had my fill of [environmental NGOs] and their just completely outrageous ideas. They basically want to make the ocean a great big viewing pond, no fishing. I don't think you can include any of those people in 'external groups who can help support industry needs.' The International Game Fish Association is an NGO, and they hate us, too."

"There's a lot of youth in this industry. They want to fish, they're here for the passion, they're here for the satisfaction of being on the ocean. And there are some of us in the industry who have been in there a little longer and [we're] a little bit more involved and aware of what's going on. There's the Sportfishing Association [of California], there's a lot of windfalls for even the recreational fishermen, and they don't realize the kind of fights that we're [fighting] for them. I'm not trying to say we deserve credit for it, but there's a smaller percentage of the industry that's even willing to engage in that conversation. A lot of guys say 'leave me alone. I'll go fishing.'"

Well-Being, Overall/Additional Comments

9. Overall/Open-ended *Is there anything not captured above that you would like managers and other readers to know about your fishing community/industry?*

- *What do you think federal and state managers could do to better support California's CPFV fisheries?*
- *What do you think members of your fishing industry could do to support the well-being or sustainability of your fishing community?*

Discussion Summary Participants expressed their concerns about Assembly Bill (AB) 3030 and discussed worries about future regulations that could restrict fishing, including regulations related to interactions between marine mammals and fishing activity. They also discussed the status of infrastructure in their ports.

- Participants said Orange County ports' docks are in need of improvement. They explained how in Newport, CPFV owner/operators are working with landlords to get the docks fixed. They recalled that in Dana Point, there was a proposal in the past to fix docks, but no work was done.
- One participant said Oceanside docks are in fairly good condition, which they attributed to the long-lasting nature of concrete docks.
- One participant said infrastructure in San Diego is overall good, but parking is an issue for some operations. Another participant said parking was plentiful at their CPFV business in San Diego.

Participant Quotes

"Down the road with these things in the works with the state as far as AB 3030 [and other] things potentially coming down the pipe, I think we would be missing something if we weren't worried about additional loss of access and things along those lines."

"The challenges keep getting greater and greater. They come from different directions at all times. Sometimes it's the state, sometimes it's the feds. We have a lot of things that are affecting us in our nearshore fishing, marine mammals being one of them, that affects what we're doing on a daily basis, as well as a myriad of other obstacles. But I feel like we will evolve

into something because these guys are proof that we can do it, guys like [names redacted] who have been here for a long time.”

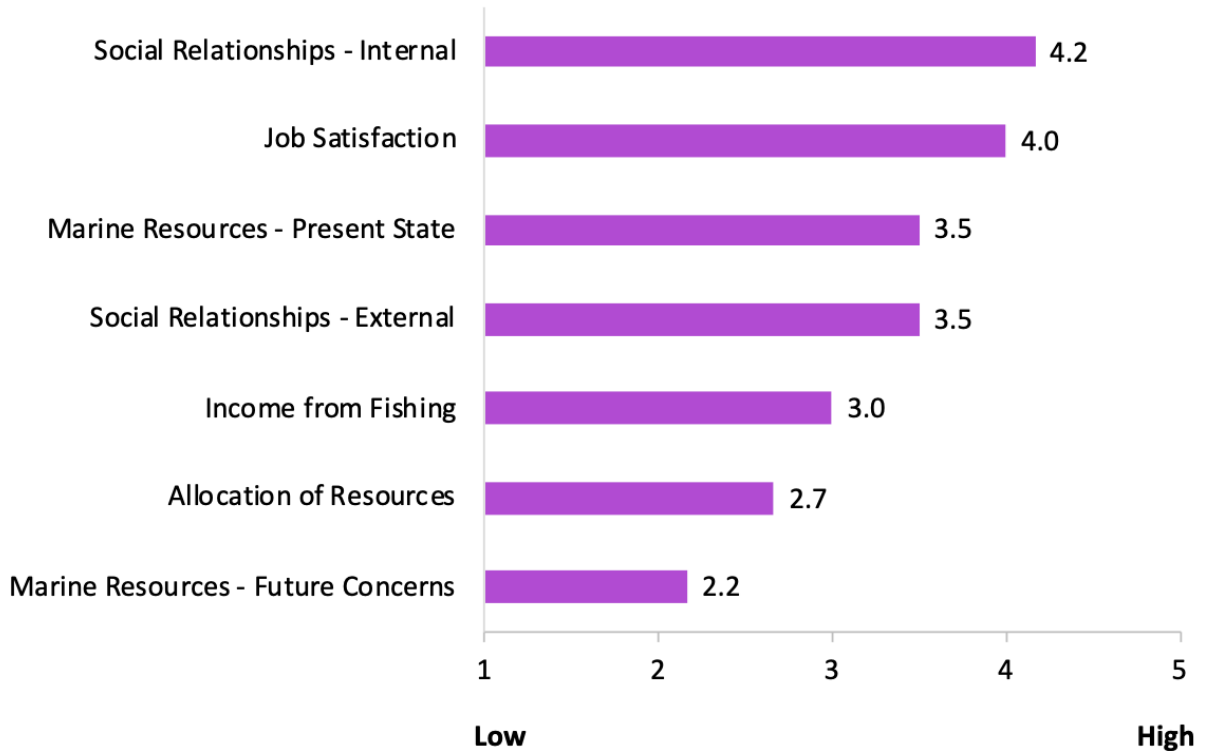
“The only complaint I would have in Newport would be some of our docks aren't in the best of shape, but we're working on negotiating with the landlords to get that rectified. But other than that, I mean, if you're talking about water and electricity and parking, it's all OK.”

“Oceanside has been great. The city of Oceanside has been in the process of doing some dock replacement. We're fortunate that our docks are concrete so they last a bit longer, but most of us here are in smaller harbors. And they're fighting to keep as much money that the harbor makes here in the harbor. It seems to get siphoned off somewhere else, I don't know where, downtown somewhere, golf games, dinner. But what does stay here, [I'm] pretty satisfied with the overall maintenance of our infrastructure.”

“Our only complaint down in San Diego, I would say we've got a perennial complaint about parking, which allegedly there's always something that's going to be done. But I don't know, it seems like it's probably not going to. But other than that, the infrastructure down there is pretty darn good. However, most of it's paid for privately. The docks are all owned by the landings so we end up paying for that indirectly by ourselves, really. But the port is supportive and they're reasonable about what needs to be done and what can be done. And so down there, I would say, other than parking, infrastructure is pretty darn good.”

Perceptions of Fishing Community Well-being, Average Responses for Questions 1-4, 6-8

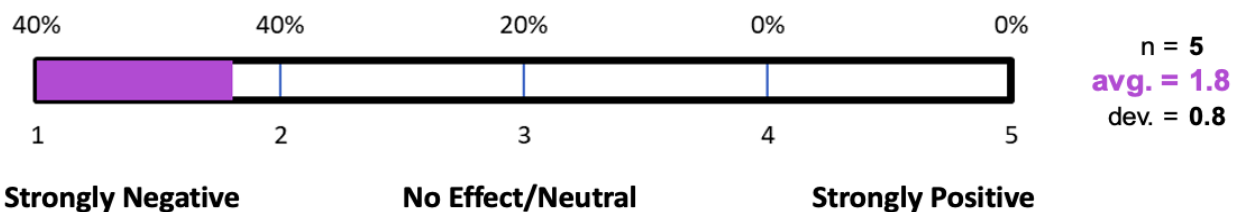
(Note: The following figure does not include the average rating for question 5. *COVID-19 Impacts*.)



Perceptions of MPAs

MPAs, Outcomes/Effects

10. MPA Ecological Outcomes How would you rate the effect that the California MPA network has had on marine resource health in your area?



Discussion Summary Participants rated MPA effects on marine resource health in the San Diego/Orange County area between strongly negative and no effect/neutral. Those that reported negative effects explained that fishing effort has shifted, not decreased, and believed MPAs do not improve the health of migratory species.

- Two participants discussed negative impacts from MPAs due to compaction and increased fishing effort in areas that remain open to fishing.

- Several participants said they have not seen spillover effects from local MPAs.
- One participant believed MPAs do not protect marine resources because fish are able to move in and out of the closures.
- One participant attributed their 'No Effect/Neutral' response to their inability to fish in MPAs and thus do not know how MPAs have affected marine resources.

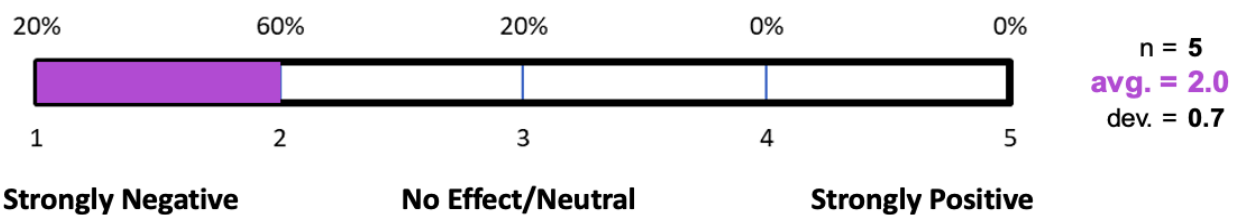
Participant Quotes

"I mean, it's pretty obvious. [...] One area closed means 100 percent of your effort is focused in a completely different area that has zero protection other than, you know, size limits and possession limits. Negative is negative, strong or not, it's definitely a negative impact. I mean, call it an unintended consequence of closing the area, knowing that that effort is going to have to be focused someplace else. I mean, you're absolutely hammering one whole area because that other option is off the table, you know, it's like trying to get a deck of cards with half a deck. You just can't."

"There's not enough room for the boats. For what area they have, sometimes it's a postage stamp in the ocean. You cannot put five boats there. You know, where they had six boats that used to run, now they've got to put themselves in one little tiny area that's open. There's only so much kelp. There's only so much pinnacles. I don't think the MPAs have protected the resource because the fish move, the fish spawn."

"This question is kind of tricky. 'What effect has this [the MPA network] had on the marine resource health in your area?' Who knows? Because we can't go in there and fish those areas. I mean, they might be really good versus serial depletion in the other areas and the average might be 'No Effect/Neutral.' So that's why I put that."

11a. MPA Livelihood Outcomes Overall, how would you rate the effect that the MPA network has had on the ability for CPFV owner/operators from your region to earn a living?



Discussion Summary Please see the **Discussion Summary** following question 11b. *MPA Effects - Overall* which summarizes the conversations related to questions 11a and 11b.

11b. MPA Effects - Overall What other types of effects or impacts have CPFV owner/operators from your region experienced from MPA implementation?

Discussion Summary Participants discussed many effects from MPAs on CPFV owner/operators in the San Diego/Orange County area, including decreased overall fishing grounds and opportunity, compaction of fishing effort, uncertainty about long term CPFV business viability, and a smaller CPFV fleet statewide.

- Participants expressed that MPA implementation severely limited local CPFV businesses' fishing opportunities, including access to fishing grounds with kelp and reef habitat.
 - Several participants explained that the closure of local fishing grounds due to MPAs resulted in CPFV owner/operators having to travel farther distances to reach fishing grounds, which has led to an increase in fuel consumption and less time on the water for customers to catch fish.
 - One participant discussed the importance of having options to fish different sites, given variable ocean conditions (i.e., currents) that affect fishing success in a particular area.
 - One participant reported their CPFV business was negatively affected by the MPAs due to restrictions on targeting surface fish in the closures.
- Participants said MPA implementation led to compaction of fishing effort in areas outside the closures.
- Participants discussed MPA effects on CPFV business operations, including shifts away from half day trips to overnight trips in Mexican waters, which creates new challenges (i.e., more paperwork).
 - One participant said their business model now includes more whale watching trips relative to fishing trips, though they did not directly attribute this to MPA implementation.
- One participant believed that following MPA implementation, California's CPFV fleet was reduced by approximately 20 percent. Another participant said one of two landings in Mission Bay shut down shortly after MPA implementation, potentially due to MPA implementation. They highlighted the difficulty associated with relocating sportfishing operations to another port.

Participant Quotes

"They [MPA decision-makers] started in Newport Beach and [took] all the good areas from Newport Beach to San Diego. They didn't take the Huntington Flats [or] San Onofre [which are both sandy areas]. They took the kelp, they took the rocks, which were great for the half-day, three quarter-day boats. And we're the people that want fish for our kids, we want fish for our grandkids. We're the ones measuring the fish to make sure that they're legal size. But we're not abusing the [resource]. But yet we're being penalized, not being able to fish somewhere to make a living."

"[We have] less area to fish, have to run further, use more fuel, and less time for clients to fish."

"In North County San Diego and in Mission Bay, we have watched the fishing business evolve away from the half-day fishing trips. Now there's only one half-day boat out of those two areas because of the removal of fishable habitat [from MPAs]. I mean, it has a direct correlation with it. There were 7:00am to 4:00pm boats that fished every day in La Jolla, [...] and all of a sudden all these boats, [...] we had to go to Mexico. We had to take those trips and make them longer and go to Mexico [...] in order to make a viable living. Now we're playing on a 50 yard field in that area; they cut the fields right in half."

"When this all took place [MPA implementation], I think there were 220 CPFV boats or something like that. And now there's like 180 [CPFV boats]. So the fleet has had to either

expand to go fish further north or fish [south] in Mexican waters. But some of us don't have that choice..."

MPAs, Discussion of Specific MPAs

12. MPA Effects - MPA Specific Which MPAs have had the most impact on CPFV owner/operators from your region and why?

Discussion Summary Participants highlighted several MPAs that have negatively affected CPFV owner/operators from the Orange County/San Diego area. One participant believed the MPA process failed CPFV operations by prioritizing environmental NGO interests, resulting in MPAs that severely limited access to local fishing grounds.

- *Laguna Beach State Marine Reserve (SMR), Laguna Beach State Marine Conservation Area (SMCA), Dana Point SMCA, and Crystal Cove SMCA:* Several participants were frustrated about not being able to access historically important fishing grounds in the contiguous MPAs between Newport and Dana Point, which they said is the best fishing habitat near their home ports.
 - One participant explained how the Laguna Beach SMR forces half-day CPFV boats to travel farther to access target species. They said their fuel costs have doubled since MPA implementation due to farther travel distance.
- *Swami's SMCA:* One participant said this MPA encompasses a large area of the best habitat structure that Oceanside fishermen relied upon prior to MPA implementation.
- *South La Jolla SMCA:* One participant expressed frustration about driving through this MPA daily and not being able to stop to fish due to MPA restrictions on targeting surface fish, even when they see schools of yellowtail and other species.
- *Point Dume SMR and Point Dume SMCA:* One participant believed the Point Dume SMR was expanded and specifically positioned, based on input from environmental NGOs, to ensure that CPFV operations could not harvest any fish from the reef at Point Dume.
- *Farnsworth Onshore SMCA and Long Point SMR:* One participant said these MPAs affect Newport CPFV businesses' fishing for rockfish and yellowtail, among other species.
- *Cabrillo SMR:* One participant said this MPA does not affect CPFV businesses, but thought it did affect local commercial lobster fishermen.

Participant Quotes

"Our half-day boat, before the Laguna [SMR was implemented], we used to fish anywhere from five to eight miles either south [or] north of the harbor. And now almost every day, the half-day boat runs 15 miles to the southeast bank to catch rockfish because they can't go south. And we've got the serial depletion issue going on north [of the harbor]. So that's all we can do and we gotta do it. So we've doubled our fuel cost on the half-day run ever since the MLPA process went through."

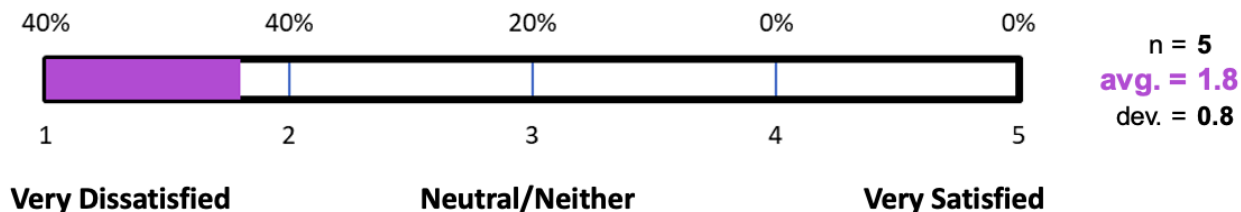
"What we are talking about here is serial depletion, which was supposed to be considered during the MLPA process. And it was not. They specifically arranged several MPAs so that there could be no spillover. The big kelp reef up at Point Dume is an example: the original MPA was supposed to just cover about half of the reef. And I overheard the conversation when these [environmental NGOs] were going 'we can't do that because they'll just fish in the rocky area

that's outside the MPA and they'll catch fish that are coming out of the MPA.' The Laguna [Beach SMR], there's a half mile of mud on either side of it, so there is no spillover, I mean, there might be a little bit, but we're not seeing it. So the bottom line is that the MPA process failed miserably in how they arranged these MPAs."

"We've lost a lot of lower La Jolla [fishing grounds]. Every day, I drive past fish that I can't stop on. Schools of yellowtail, every single day. I just gotta put my feet on the dash and my blinders on until I get to the upper end of La Jolla. Everybody knows that lower La Jolla was... man if you had a south breeze and uphill current, you could have some doozer days on yellowtail man. Barracuda, bonito, big calico bass, very nice."

MPAs, Management

13. MPA Management Overall, how satisfied do you think CPFV owner/operators from your region are with the management of the MPA network?



Discussion Summary Participants were generally dissatisfied or very dissatisfied with MPA management. One participant scored this question as 'Neutral/Neither' because MPA management goals are unclear and they have not received any information about MPA management, monitoring, or enforcement.

- Several participants expressed that MPA management goals have not been communicated to stakeholders, including CPFV owner/operators.
 - One participant did not know where they could find information about ongoing MPA management.
- One participant recalled fishery managers stating during MPA implementation that MPA designations would be reversed if they were not managed or enforced.
- One participant was interested in a management system where MPAs are opened for CPFV fishing for several years at a time, then closed again. They believed this approach would relieve existing fishing pressure on areas outside the closures.
- One participant was frustrated that fishing for surface fish (i.e., barracuda, bonito, yellowtail) is not allowed in MPAs. They shared the understanding that MPAs were intended to protect bottom fish, not surface fish.
- One participant believed fishery managers are not interested in information shared by CPFV owner/operators as it relates to MPA management.

Participant Quotes

"I couldn't tell you what we're trying to achieve with these MPAs other than it looks great on paper and maybe somebody feels warm and fuzzy about it... We don't know, and we [CPFV owner/operators] do this for a living."

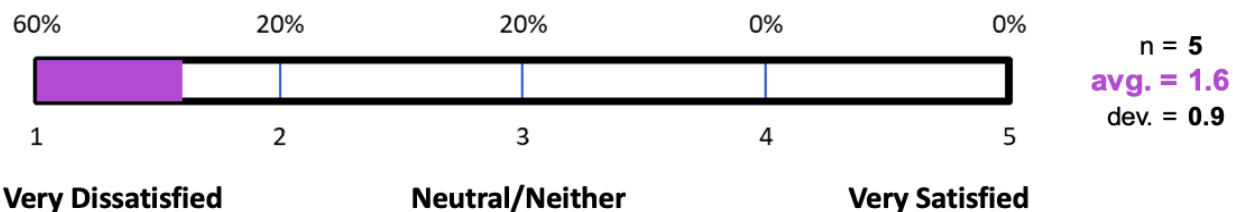
"I mean, they [fishery managers] told us that if it [the MPA network] was not managed [...] and it could not be enforced, the MPAs would go away. That's public record. But yet, who's changing it?"

"You know, there was some talk during the [MLPA] process, [...] about maybe every five years, opening up a couple of MPAs to the CPFV fleet and then closing them again for another five years. There was some kind of talk about that maybe happening, but I can't say for sure that that was actually part of the mandate. [...] Absolutely, I'm interested in this happening. Take some pressure off those other areas. Give us a season once in a while, you know."

"These MPAs were designed basically to protect the local environment: kelp, bottom fish, bass, sheephead, all the stuff that lives on the bottom. When you've got pelagics moving through an area, you know, barracuda, bonito, yellowtail and they're not really a coastal pelagic, but they're not an offshore pelagic, they're kind of an in-between. When they're moving through one of these things [MPAs], you should be able to stop and fish them, as long as you're not catching anything else, you know, if you're outside of the kelp at 100 yards, fishing reefs for yellowtail, and there's no structure there."

"My question would be how open are they [fishery managers] to our information? I mean, how really open are they to the information from people that are on it and around it on a routine basis that have good, solid, legitimate [information to share]? They seem to call it 'anecdotal,' right? But this, it's good feedback. And it just seems like we give it so many times and nothing ever happens."

14. MPA Monitoring Overall, how satisfied do you think CPFV owner/operators from your region are with the monitoring of the MPA network?



Discussion Summary Participants expressed their dissatisfaction with MPA monitoring due to poor communication about monitoring studies and results, lack of inclusion of fishermen's knowledge in study design, and logistical challenges to participation in monitoring efforts. One participant responded 'Neutral/Neither' as they have not received any information about MPA management, monitoring, or enforcement.

- Several participants were unaware of MPA monitoring studies or the availability of results.
 - One participant desired better communication of MPA monitoring results, given the extensive information collected from CPFV vessels by CDFW.
- Several participants who were involved in MPA monitoring studies were frustrated with the lack of inclusion of fishermen's knowledge in study design.
- One participant reported challenges obtaining permits from CDFW to assist with MPA monitoring activities.

Participant Quotes

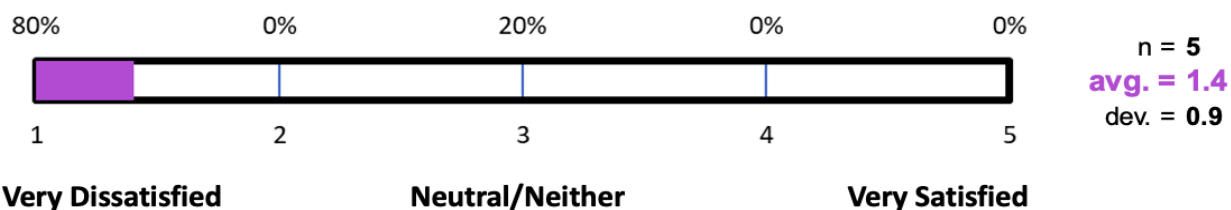
“Who's doing the monitoring? I remember during the MLPA process, we had a handful of scientists on the panel that seemed like they were trying to create little research fiefdoms for themselves in perpetuity. And I've never heard anything, there's never been anything published that I know about. [...] So I don't know. The whole thing is just beyond my understanding.”

“Show us what you're doing, give us some sort of proof. We're open to having their samplers [for the California Recreational Fishing Survey] on the boat so that they can get information. We're under penalty of fines required to submit all this information to the state for their benefit. Where's our ability to have that reciprocity on that transparency?”

“I've done probably 25 tagging trips in the last seven or eight years. We tagged in the MPAs, but it doesn't make sense because we're only allowed to use shrimp flies with squid, I believe, and swim baits. They don't let you pick where to fish, they give you the coordinates and they give you a 15 minute drift. Some of the blocks have good habitat and structure, but you can't fish the way that we fish in Southern California. You can't fly line a bait, you can't throw a surface iron. Last year [...] we're in the south La Jolla closure and we're doing our drift and this big ol' breezer of yellows comes up. And I'm like, pardon my french, 'what the f*** do I do?' I got my [bait] and [the researcher said] 'you can't throw it.' So we watched as this breezer of yellowtail literally go off our stern, and we ended up catching one on a shrimp fly. And the scientists were the happiest creatures you've ever seen on Earth. They're like 'this is awesome!' If I had two tanks of sardines and if I could have chummed and we could have fly lined, we could have tagged all the yellowtail you wanted.”

“I can tell you that the Northwest Fisheries Science Center hook-and-line survey, which I participate in every year - I run one of the boats - we fish in quite a few marine reserves. For some reason, it's getting harder and harder to get permits from CDFW to go in there and fish 'em. It's like they don't want to see any monitoring of them. But I can tell you that in one spot [...] at Long Point out in 45 fathoms, there's been a big increase in bocaccio and vermillion rockfish. I can tell you that one rock in that MPA is working. But other than that, I have no idea.”

15. MPA Enforcement Overall, how satisfied do you think CPFV owner/operators from your region are with the enforcement of MPAs?



Discussion Summary Several participants were very dissatisfied with MPA enforcement due to inconsistent enforcement efforts for CPFV vessels versus private vessels. One participant responded ‘Neutral/Neither’ as they have not received any information about MPA management, monitoring, or enforcement.

- One participant reported seeing unofficial MPA enforcement in the Orange County area by private citizens rather than CDFW wardens.
- One participant believed MPA enforcement is inconsistent and unfair. They reported CDFW wardens do not enforce MPA restrictions for small, private boats fishing in the Catalina Island MPAs. They perceived CPFV boats to be disproportionately targeted by enforcement officers.
- One participant recalled the enforcement boat assigned to the MPAs between Dana Point and Newport not enforcing MPA restrictions; rather, enforcement activity is focused on the Catalina Island MPAs.

Participant Quotes

“The only enforcement that I see in the Laguna Beach MPA is rich people living in multi-million dollar houses up on the hills. They look out with their binoculars, and if they see somebody fishing in the MPA, not us [CPFV operations], but private boats, they call the Dana Point or Newport Harbor Patrol. I don't know what goes on in the rest of them, but the Long Point SMR at Catalina gets violated all the time, and there's no enforcement there.”

“If a [CPFV] boat even slows down to look in [the Catalina MPAs], a charter boat, [...] it's game on. We're the targets because they're not just writing one ticket to an individual, they're writing tickets to 50 people on a boat. It's not a level playing field [compared to enforcement of small, private boats]. You can take any Saturday or Sunday and fly the coast in an airplane and see all the small boats, including the kayakers and the guys fishing in their little rubber rafts, in all these MPAs.”

“[The] enforcement boat in [Dana Point] is never in that MPA area, ever. They're always at Catalina [Island]. You can drive from Dana Point to Newport and drive through the closure and see numerous boats [fishing in the MPA], but I've never seen a patrol boat in there citing people.”

16. MPA Overall *Any additional comments or concerns about the MPAs and MPA management you would like to communicate?*

Discussion Summary Participants shared concerns and hopes for the future related to MPA and fisheries management more broadly.

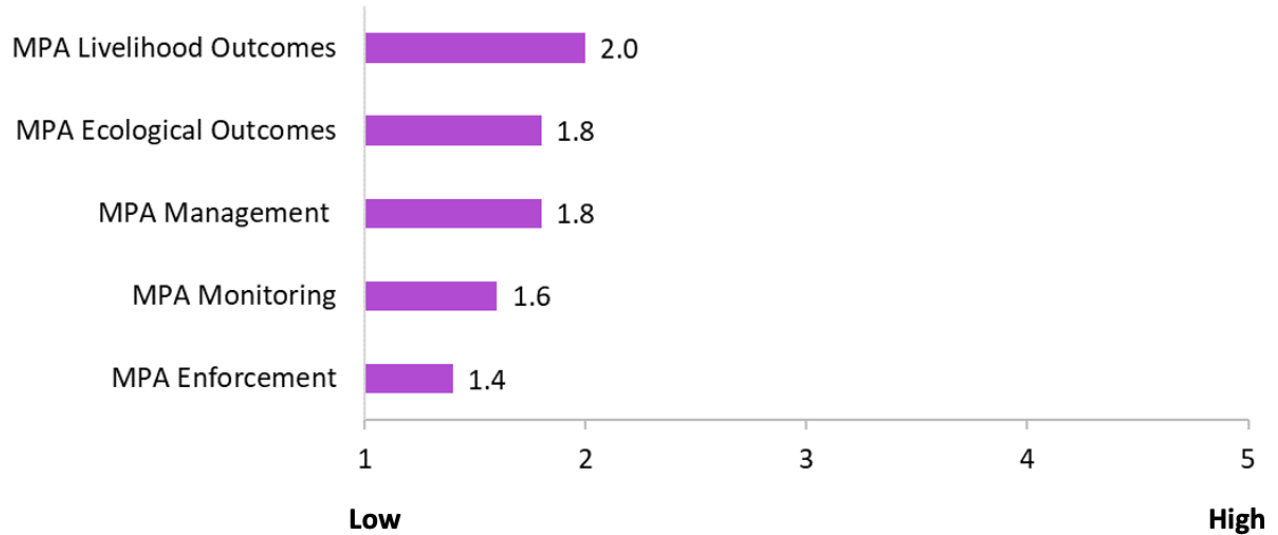
- One participant expressed concern about the potential impact that AB 3030 could have on Newport Beach CPFV operations given the already large amount of area closed to fishing.
- Another participant hoped management restrictions do not restrict fishing opportunities for future generations.

Participant Quotes

“AB 3030 was such a blow. [...] In Newport Beach, we've given up 30 percent of our area already. [...] We're just trying to make a living and protect the resource. I don't think the MPAs have protected the resource because the fish move, the fish spawn. Sure, [the 30x30 initiative] is good for the aquarium, for Governor Newsom to show a picture of a big sheephead and a big calico bass. But is that more resource? It's just a bigger fish.”

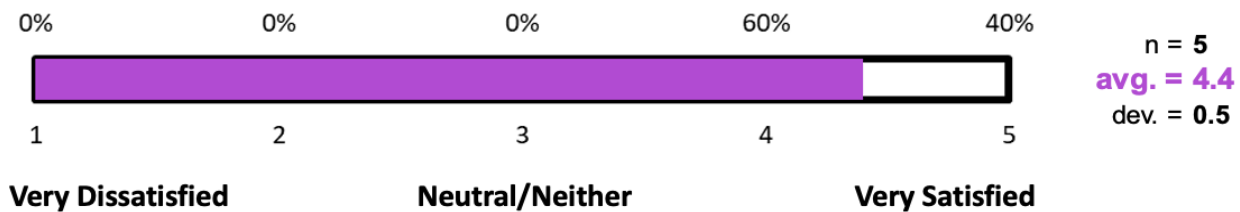
“I hope my kids can see the fishing in the future because I remember my grandfather and my dad taking me out on the *Nautilus*, the *Freelance*. I remember going on overnight trips on the *Amigo* when I was a kid. And I hope that I can actually take my kids and let them see the same things I experienced with my dad and my grandfather. I want to take my sons and let them experience the same thing.”

Perceptions of MPAs, Average Responses for Questions 10-11a, 13-15



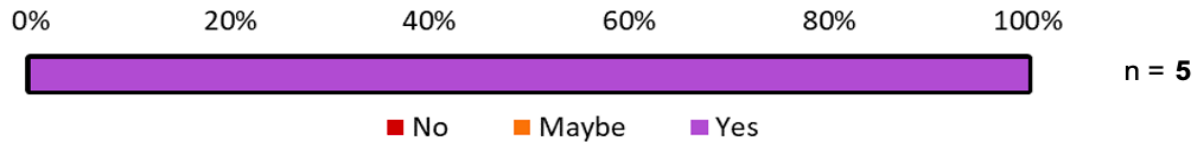
Feedback on Virtual Process

17a. Satisfaction with the Virtual Process Overall, how satisfied were you with your experience participating in this virtual focus group?



17b. Willingness to Participate in Virtual Process in Future *Would you be open to participating in a virtual focus group or meeting like this in the future?*

(**Note:** For the following figure, the length of the purple bar indicates the percent of participants who responded 'Yes' to question 20b. If participants responded 'No' or 'Maybe,' a red or orange bar would appear, respectively.)



17c. Process Open-ended *Can you share any additional comments about your experience in this virtual focus group? What do you think are some of the pros and cons of having a conversation like this online rather than in-person?*

Discussion Summary One participant acknowledged their positive experience during the meeting and appreciated the Zoom training and orientation held at the start of the focus group.