



Item 6: Consideration of Authorization to Disburse Proposition 84 Funds

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January 31, 2018

Development of California's Ocean Acidification Action Plan

1. Project objectives

- To assist OPC in developing and releasing California's Ocean Acidification Action Plan as part of California's commitment to the International Alliance to Combat Ocean Acidification
- Provide content support, facilitate scientific review, and develop outreach and communication materials

2. Project cost

- Up to \$250,000 to California Ocean Science Trust

3. Outcomes

- Action Plan for California that is comprehensive, statewide, and bold
- Action Plan that can be a model to other regions, states, countries and members of the Alliance as they outline different avenues and mechanisms of action



Members commit to crafting Action Plans to advance goals of the Alliance

1. Advance scientific understanding of ocean acidification
2. Take meaningful actions to reduce causes of acidification
3. Protect environment and coastal communities from impacts of a changing ocean
4. Expand public awareness and understanding of acidification
5. Build sustained support for addressing this global problem



International Alliance to
Combat Ocean Acidification

OA Action Plan Toolkit

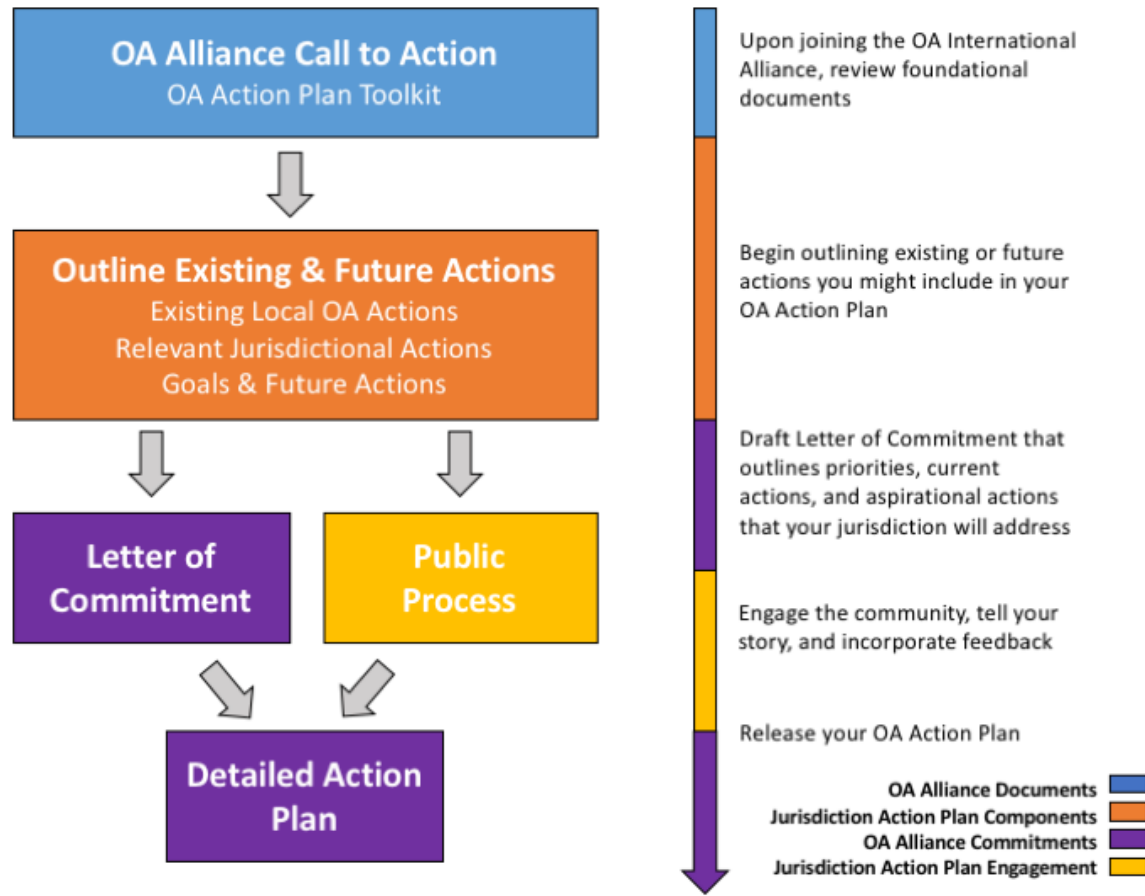
1. Building an OA Action Plan is central to endorsing the OA Alliance Call to Action
2. Toolkit is an aid for entities building OA Action Plan
 - Document and leverage existing actions
 - Share ideas about existing or potential actions
 - Inspire future actions

1. Advance Scientific Understanding			
General Action	Example Specific Actions	Gov't	Affil.
2. Reduce Causes of OA			
General Action	Example Specific Actions	Gov't	Affil.
3. Build Adaptation and Resiliency			
General Action	Example Specific Actions	Gov't	Affil.
4. Expand Public Awareness			
General Action	Example Specific Actions	Gov't	Affil.
5. Build Sustained International Support			
General Action	Example Specific Actions	Gov't	Affil.
	Regularly and actively participate in OA Alliance events.	✓	✓
	Coordinate integrating OA science into adaptation frameworks and policy by incorporating the most current findings into mitigation and resilience planning.	✓	✓
	Promote scientific collaboration across agencies and organizations to coordinate and implement	✓	✓

Why Now?

1. Momentum from COP23 aka United Nations Climate Change Conference
 - Ocean Pathway Partnership and elevation of oceans
2. OA Alliance Voluntary Commitment at UN Oceans
 - 60 members by June '18/15 Action Plans by June '19
3. Global Climate Action Summit in San Francisco in September 2018
4. Efforts that have happened through the West Coast Ocean Acidification and Hypoxia Science Panel and the response – Need to aggregate, build upon, and continue to be visionary

Pathway to OA Action Plans



Process and Timeline for California

- **Early 2018:** Scoping Action Plan and early drafting
- **Spring 2018:** Status Update and feedback via OPC meeting
- **Late Spring/Early Summer 2018:** Public Outreach and Feedback
- **Early Summer:** Engage OA Task Force for scientific merit and feasibility of Action Plan
- **Summer 2018:** Public Comment Period
- **Late Summer 2018:** Adoption and Consideration by OPC
- **Fall 2018:** Widely release and roll-out Action Plan at relevant international and state venues
- **Early 2019 and on:** Implementation of California's OA Action Plan



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Development of Sediment Management Action Plan for Greater Farallones and Monterey Bay National Marine Sanctuaries

1. Project objectives

- Examine data gaps and identify solutions to obstacles for protecting habitats, ensuring public access, preparing for sea-level rise, and maintaining critical infrastructure.
- Builds upon four completed Coastal Regional Sediment Management Plans for Northern California

2. Project cost

- \$85,000 to the Greater Farallones Association

3. Outcomes

- *A Sediment Management Action Plan* for the Greater Farallones and the Northern Management Area of the Monterey Bay National Marine Sanctuary





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Collection & Synthesis of Information on 30 State-Managed Marine Species & Scoping California Fisheries Portal

1. Project objectives

- Collect and synthesize information on 30 state-managed marine species
- Convene a series of multi-interest roundtable discussions to inform the design and development of an online California Fisheries Portal

2. Project cost

- \$190,503 to Fathom Consulting
- \$30,866 to Strategic Earth Consulting

3. Outcomes

- Up-to-date, species-specific information for state marine resources
- Framework for publicly accessible state fisheries information
- Multi-interest stakeholders will inform the design of an online tool to ensure its utility for a range of users



Sort by:



California Spiny Lobster



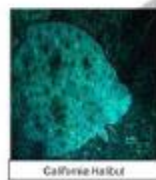
Spot Prawn



Pink Shrimp



Market Squid



California Halibut



White Seabass



Surf Perch



Pacific Halibut

Quick Links:

- [Marine Life Management Act](#)
- [Free Guide to the MLMA](#)
- [The Master Plan for Fisheries](#)
- [The "Who Manages What?" management matrix](#)
- [Prioritizing management efforts](#)

List of 36 State-Managed Marine Species

1. Barred Sand Bass*
2. California Halibut*
3. Kelp Bass*
4. Pacific Hagfish*
5. Pacific Herring*
6. Spotted Sand Bass*
7. Barred Surfperch
8. Bonito
9. Brown Rock Crab
10. Brown Smoothhound Shark
11. California Barracuda
12. California Bay Shrimp
13. California Sheephead
14. California Spiny Lobster
15. California Corbina
16. Dungeness Crab
17. Geoduck Clam
18. Giant Red Sea Cucumber
19. High Pacific Angel Shark
20. Jacksmelt
21. Kellet's Whelk
22. Market Squid
23. Med. Pink Shrimp
24. Night Smelt
25. Ocean Whitefish
26. Pismo Clam
27. Red Abalone
28. Red Sea Urchin
29. Redtail Surfperch
30. Ridgeback Prawn
31. Shiner Seaperch
32. Spot Prawn
33. Warty Sea Cucumber
34. White Croaker
35. White Seabass
36. White Sturgeon



*CDFW is leading the development of this Enhanced Status Report

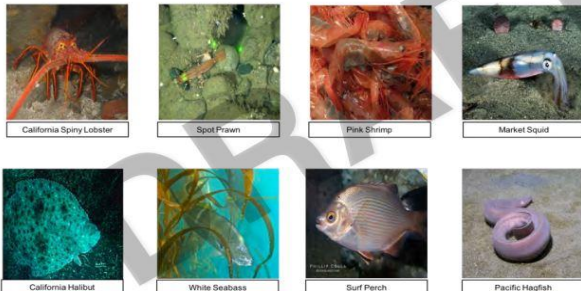
California Fisheries Portal: Conceptual draft, example slides (February 2017)



Welcome to the
California Fisheries Dashboard
 Information on state managed fisheries under the Marine Life Management Act



Sort by: **Name** Gear type Value Commercial/recreational/both **Finfish/invertebrates** Search



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Draft Fishery Overview: Example, Pink Shrimp

Standard Format: Quick orientation to fishery with tabs for more information

"At a Glance"

Pacific Pink Shrimp - At a glance

2016 Risk Level: Active vessels

2016 Participation: 15 active vessels

2016 Commercial Value: 3.7 million dollars (5th)

2016 Landings: 8.5 million pounds (4th)

At a glance | Biology | The Fishery | Ecosystem considerations | Management measures | Research efforts and need

"Biology"

Pacific Pink Shrimp - Biology

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"The Fishery"

Pacific Pink Shrimp - the fishery

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Biology: A Closer Look

Pacific Pink Shrimp - Biology

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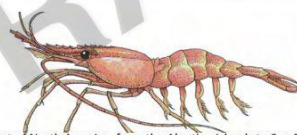
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At a glance **Biology** The Fishery Ecosystem considerations Management measures Research efforts and need

Natural history of the species (7080b)

Distribution
 Pink shrimp are found all along the west coast of North America, from the Aleutian Islands to San Diego. They are thought to be a single genetic stock throughout their entire range (OST, 2014). Pink shrimp are found at depths of 150 to 1200 feet, but tend to be caught between 250 and 750 feet in California. They are concentrated in well-defined muddy benthic habitats called beds, and the majority of beds with



Quick Links:

- Research and partnership opportunities
- Full 2016 Status Report
- Interactive maps
- Landings and permit data

Interactive Data Query and Mapping Function

Note: No confidential commercial market squid landings data are listed here. Vessel activity was not disclosed where less than three vessels set per block, per season. Some seasons may appear to contain no data to protect the confidentiality of vessel location information.

CA Commercial Market Squid Landings 2000 Fishing Season

Market Squid Landings and Value Information

Season	Total Landings (MT)	Seasonal Catch Limit (MT)	Ex-Vessel Value
2000-01	124,378	NA	\$24,155,785
2001-02	102,914	125,000	\$20,239,493
2002-03	47,516	125,000	\$11,089,856
2003-04	60,476	125,000	\$26,052,936
2004-05	56,572	125,000	\$27,050,055
2005-06	82,108	118,000	\$42,353,964
2006-07	38,366	118,000	\$18,741,533
2007-08	50,835	118,000	\$29,432,950
2008-09	40,146	118,000	\$27,410,208
2009-10	80,084	118,000	\$48,178,234
2010-11	133,442	118,000	\$66,236,306
2011-12	134,866	118,000	\$67,242,795
2012-13	106,085	118,000	\$62,781,267
2013-14	115,055	118,000	\$73,767,750
2014-15	114,584	118,000	\$72,506,270

Additional Information

- The California Department of Fish and Wildlife's Coastal Pelagic Species and 150th Migration Species Project
- The Pacific Fishery Management Council's Coastal Pelagic Species website



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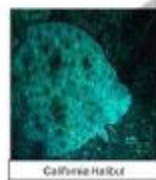
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