

CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation
September 10 - 11, 2008

**THE CENTRAL COAST GROUND FISH PROJECT:
CONSERVING A WORKING SEASCAPE**

File No. 08-099
Project Manager: Christine Blackburn

RECOMMENDED ACTION: Authorization to disburse up to \$1,006,500 to The Nature Conservancy to support the Central Coast Groundfish Project that will assess new, sustainable approaches to the Central Coast groundfish fishery in California.

LOCATION: Central Coast

STRATEGIC PLAN CATEGORY: Ocean and Coastal Ecosystems

AGENCY OR ENTITY RECOMMENDING PROJECT: Ocean Protection Council

EXHIBITS

Exhibit 1: [Map of the project study area](#)

Exhibit 2: [Recent newspaper press](#)

Exhibit 3: [Letters of support](#)

RESOLUTION AND FINDINGS:

Staff recommends that the Ocean Protection Council adopt the following resolution pursuant to Sections 35500 *et seq.* of the Public Resources Code:

“The Ocean Protection Council hereby approves the disbursement of an amount not to exceed \$1,006,500 to The Nature Conservancy to support the Central Coast Groundfish Project that will assess new sustainable approaches to the Central Coast groundfish fishery in California.”

Staff further recommends that the Council adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the Council hereby finds that:

1. The proposed project is consistent with the purposes of Division 26.5 of the Public Resources Code, the Ocean Protection Act.

2. The proposed project is consistent with the Ocean Protection Council's project selection guidelines.”

PROJECT SUMMARY:

Staff is recommending that the Ocean Protection Council authorize disbursement of up to \$1,006,500 to The Nature Conservancy (TNC) to support the Central Coast Groundfish Project (CCGP) that will assess new sustainable approaches to the Central Coast groundfish fishery in California.

The proposed authorization will enable TNC to implement the CCGP, which consists of three components:

1. **Community-based Fishing Association** – A demonstration project in which up to six TNC-owned trawl permits are transitioned to more selective, less damaging hook-and-line and trap methods. TNC will work with its fishing and community partners and experts in the central coast to design and establish a community-based fishing association, an organization that can hold and manage fishery assets (permits or quota) and incorporate conservation, community, and business goals into its business decision making. Important to the CCGP vision is market demand for premium-quality, locally harvested, and sustainably caught seafood. A goal of the association is to produce fish that can be marketed as a sustainable California seafood product. This project will demonstrate the feasibility of transitioning local traditional trawl effort to alternative gear types and establishing shared community goals for harvest and sale.
2. **Conservation Fishing Agreement** – A demonstration project in which a TNC-owned trawl permit is used subject to a private trawl lease agreement (the “Conservation Fishing Agreement”) that incorporates specific conservation terms into the contract. The purpose is to test the feasibility of improving trawling practices (a fishing technique required to harvest flatfish commercially) to practices that will result in less bycatch and reduced habitat impact.
3. **Directed Trawl Impact Study** – A five-year study using TNC’s newly acquired remotely operated vehicle (ROV) to evaluate the impacts of small footrope trawl gear on sandy and muddy areas of the seafloor. This study will be conducted in concert with the Conservation Fishing Agreement (#2) and will help provide a better understanding of trawl impacts and recovery times on the seafloor.

The CCGP will contribute to preserving California’s fishing heritage and its marine resources. TNC and fishermen are working together to foster more environmentally and economically sustainable approaches to fishing to increase both conservation benefits and economic and community sustainability. The different approaches being tested in this project are extremely unique and innovative and results for this project can inform similar efforts in California and nationwide.

PROJECT DESCRIPTION

Background

In 2003, TNC completed its Marine Ecological Assessment for Northern California. That conservation plan identified areas of biological significance to serve as targets for marine conservation efforts and assessed the greatest threats to the habitat and marine life within those sites. The Central Coast emerged as a region of particular interest due to its rich collection of diverse marine habitats and associated wildlife. The assessment also identified bottom trawling as the principal threat – an activity that causes substantial damage to benthic habitats and produces large amounts of bycatch.

In 2005, TNC partnered with regulatory agencies and trawl fishermen in Central Coast communities to develop a collaborative proposal that would implement recommendations of the National Academy of Sciences aimed at reducing the impact of bottom trawling, including the implementation of closed areas associated with key habitat. TNC successfully petitioned the Pacific Fishery Management Council (PFMC) to have 3.8 million acres of Essential Fish Habitat (EFH) declared off-limits to bottom trawl gear.

Simultaneously, to reduce bottom trawl fishing effort and to mitigate the economic impact of bottom trawl closures, TNC purchased several federal permits and vessels from local fishermen interested in leaving the trawl groundfish industry. Building on TNC's purchase of federal groundfish trawl permits, TNC leased one of seven permits to a Morro Bay fisherman in 2007. The lease is a voluntary, private agreement designed to test new fishing methods, focusing on techniques to reduce bycatch and conserve habitat.

Both the previous and proposed work in the Central Coast are aimed at testing methods for improving the economic and environmental sustainability of the groundfish fishery in the region. Beginning in the late 1990s fishery managers took actions to protect and rebuild several severely depleted species of rockfish, which reduced the economic viability of the high volume, less-selective trawl fishery. Significant coast-wide catch reductions and closures were implemented between 2000 and 2003. In 2003, a federally financed buy-out reduced by half the size of the fleet on the West Coast to approximately 160 vessels. The EFH protection measures implemented in 2006 further limited the area available to the remaining vessels. Rising fuel costs and loss of infrastructure have further reduced the economic viability of the fishery in many areas. The PFMC is currently considering an action to implement an Individual Transferable Quota (ITQ)¹ management system, with the hope that it will improve economic viability in the fishery throughout the region. In addition, the proposed ITQ management scheme will allow fishermen to switch from conventional trawl gear to more sustainable techniques. The PFMC estimates that, once implemented (projected 2011), the ITQ program could result in further fleet reduction and consolidation, perhaps to 60 or fewer vessels coast wide.

If an ITQ program is implemented, it is likely that the value of groundfish permits will increase significantly. However, this may not ultimately benefit the fishery in the Central Coast which is the southernmost extent of the fishery and where the traditional trawl model has not worked well.

¹ Individual Transferable Quotas grant a specific percentage of the total allowable catch to each fisherman participating in the fishery, allowing them to make decisions about when and how to land their catch based on market considerations.

The transition to an ITQ system presents a challenge and an opportunity. It threatens the fishing heritage of the region since there will be a strong incentive for fishermen in these ports to sell or move their permits to more viable trawl ports in northern California, Oregon, and Washington. It also provides an opportunity for efforts to improve the economic viability of a small-scale fishery to maintain the capital invested in the region tied to approximately 20 trawl permits (including the permits acquired by TNC). TNC has developed the CCGP as a way to keep fishing effort in the region by transitioning its permits and associated quota share to the community-based fishing association. The association will anchor effort in Central Coast communities, convert from trawl to higher-value, sustainable fishing practices, promote local stewardship and co-management, and provide California consumers with access to sustainably harvested fish.

Community Benefit

If this project is successful, the beneficiaries will be fishing communities in the Central Coast of California (between Pillar Point and Point Conception) in addition to fishermen in this area who will be assured of opportunities to participate in a fishing future. Although this fishery is under federal management, it is in the OPC's interest to support such collaborative sustainable approaches to fisheries management to protect California's local participation and economic and ecological benefits from this fishery. California will retain access to the groundfish resource off its shores, a resource which will be harvested in a way that is compatible with the extraordinarily diverse and productive marine ecosystems in this area. California consumers will have access to seafood products that are harvested in an environmentally sustainable manner. The tools and techniques developed in this project could serve as a model for communities and fisheries elsewhere in California and beyond.

Project Details and Scope of Work

The overall goal of the CCGP is to improve the economic future of the groundfish fishery in the Central Coast while reducing its environmental impact. This will be achieved by implementing different fishing techniques that may yield higher prices, implementing new types of trawl gear that that will have less impact on benthic communities, and testing cooperative fishery approaches within the community that can provide a more certain future for fishermen in the region. To examine these different approaches, TNC will pursue three different, but interrelated projects, detailed below.

Community-based Fishing Association

The first component of the CCGP is focused on working with a Community-based Fishing Association to test the viability and impacts of converting from trawl to non-trawl fishing techniques. The Community-based Fishing Association, formed as part of the project, will work with TNC to study the economic and ecological impacts of transferring effort away from trawling to non-trawl harvest practices such as trap and hook and line. The idea is that the community will see benefits of diversification of effort, and sustainable practices will yield higher prices in the market place. An Exempted Fishing Permit (EFP) is required to carry out this project, which allows TNC to use its permits with non-trawl gear under shared catch limits – neither is currently allowed under federal rules. Preliminary approval for an EFP was received from the PFMC in June 2008 and final approval is anticipated at the PFMC meeting from September 7-12, 2008.

Upon receiving approval from PFMC and the National Marine Fisheries Service for the EFP, TNC will enter into separate agreements with up to six fishermen – chosen through a fisherman questionnaire and an independent third party review. Each agreement will assign one of TNC's trawl permits to a fisherman and each fisherman will be issued his or her own EFP by NOAA Fisheries that allows them to participate in the project and become members of the Community-based Fishing Association.

Fishing participants and TNC staff will immediately commence harvest planning to guide fishing effort using selective gear (e.g., modified trawl gear, hook and line, and traps) and shared harvest caps. To accomplish the project, the harvest plan must focus effort on catching the diverse suite of species traditionally landed through trawl fishing. Not all trawl-caught species can be landed with fixed gear techniques – particularly flatfish species. However, if this community (or any other) is to convert a significant portion of its traditional trawl capacity to fixed gear fishing, it must be able to demonstrate that it can catch and utilize many of the diverse species typically caught using trawl gear.

The plan will detail how much of each species should be caught, types of gear used by each participant, and the location and effort for each gear type and participant. The goal is to cooperatively decide how to diversify effort for the economic benefit for all involved. The harvest plan will be adaptively managed over the course of fishing under the EFP. Data will be collected to study the feasibility and cost effectiveness of harvesting traditionally trawl-caught species with alternative fishing gears and to measure overall changes in bycatch rates. This information will build the foundation for a local, multi-species, fixed gear groundfish fishery.

Fishing will take place between April/May 2009 and October 2009. Fishery dependent data showing costs, revenues, and catches and bycatch will be collected throughout. There will be 100 percent observer coverage of all trips taken as part of the project – a requirement of the federal EFP. In addition, different electronic monitoring systems (i.e., cameras) will be installed on several vessels to test the effectiveness of electronic monitoring against human observers. If it is shown that cameras are sufficient for providing observer coverage, the number of human observers can be reduced in future years, which will reduce costs and improve accountability in the fishery dramatically.

Working with consultants, TNC will develop a survey that assesses the effect of the fishing association on community well-being that will accompany more detailed analysis of the economic viability of this fishing operation.

Conservation Fishing Agreement

The Conservation Fishing Agreement (CFA) part of the project focuses on formal agreements between TNC and fishermen, who will fish using a TNC permit. Each permit will be leased to a fisherman who agrees to the lease terms that carry specific restrictions on how fishing can be conducted –akin to a land-based conservation easement.

This part of the project will test the viability of a trawl operation under conservation restrictions designed to minimize the environmental impact, while bringing in economically important species of flatfish that are only harvestable using trawl. Of particular interest are geographic restrictions, which can be included in a private lease agreement to limit the area available to the trawl operations, avoiding sensitive habitats and potentially reducing gear conflicts. The fisherman will use smaller scale trawl gear that is traditionally used on the west coast. The terms

of the agreement provide for adaptive management of the geographic limitations and the gear used in order to meet the conservation objectives of the project.

TNC will then convene a panel of experts on fishing and fishing gear to evaluate the environmental and economic performance of this approach. Specifically this panel will assist with an analysis of bycatch and discards that includes geographic analysis of catch and bycatch information. Based on these initial data, the panel will develop recommendations for modifications to the terms of the CFA regarding gear, geographic restrictions, and/or monitoring. TNC will also convene a group of experts on trawl fishing gear design to review the performance of the gear used, particularly as relates to improving selectivity and avoiding bycatch of depleted species and minimizing habitat impacts. Finally, TNC will analyze the socioeconomic performance of the CFA including contributions to the local fishing industry, and whether area restrictions are economically viable or the restrictions limit the profitability of the operation.

Directed Trawl Impact Study

The third component of the CCGP is the Directed Trawl Impact Study. The general research objective of this study is to compare the distributions of seafloor microhabitats² and associated communities of animal and plant species, and how these communities change with increasing trawl effort (e.g., number of times a trawl is conducted in the same place). The questions that will be addressed by this study include:

- How do invertebrate abundance and density and seafloor microhabitat structure vary with different trawling intensities in sandy and muddy soft-bottom habitats?
- How does the catch of flatfish and bycatch of associated species vary with different types of soft-bottom habitats?
- How quickly can different benthic communities recover from trawl impacts?

TNC will use us their ROV (remotely operated vehicle), previously purchased with OPC funding, to visually quantify the relative abundance of (a) seafloor microhabitats, (b) epifaunal³ macro-invertebrates, and (c) infaunal⁴ macro-invertebrates across a gradient of fishing effort in primarily soft-sediment environments. In addition, TNC will evaluate the catch of flatfish and bycatch of other species in each trawling effort and analyze the habitat associations of flatfish and the relative amount of bycatch in different areas.

During the first phase of this study, TNC will identify study sites and begin to characterize the direct impacts of trawling. The chosen sites will represent two types of soft-bottom habitats (sandy and muddy) in areas that have not been recently trawled. In each habitat type, TNC will use the trawling vessel and permit to establish treatment plots of varying trawling intensity:

1. Unfished (3 sites): unfished since 2000 (based on review of trawl track data)
2. Lightly Fished (1 pass, 3 sites): a single trawl pass in Year 1
3. Intensively Fished (10 passes, 3 sites): 10 trawl passes in Year 1

² “Microhabitat” refers to the physical substratum (e.g., sand waves), any associated structure-forming taxa (e.g., anemones, sponges, amphipod tubes), and any biogenically built structure (e.g., mounds and depressions). In addition to the organisms that form them, microhabitats are critical for a variety of fish species at different stages of their lives.

³ Epifauna live on the surface of plants, sediments, or objects on the sea floor.

⁴ Infauna live in sediments on the sea floor.

4. Chronically Fished (3 sites): 10 trawl passes annually beginning in Year 1 and continuing for all years of the project

TNC will operate the ROV system along transects to collect video data on seafloor microhabitats and epifaunal macro-invertebrates. The ROV will be configured with two video cameras (forward-oblique and down-looking), a down-looking digital still camera, and two down-looking lasers for image calibration and estimates of distance above the sea bottom. The ROV will be “flown” at approximately half a meter above the sea floor. Each transect will consist of 20 minutes of continuous video and 20 digital still photographs recorded on DVD. TNC will take still photographs at approximately one-minute intervals throughout each transect and will use “bottom grabs” to collect infaunal invertebrates and sediment samples.

This component of the project is designed as a five-year study. In the future, TNC will continue to conduct ROV surveys at all sites to measure community recovery from trawling over time.

Before funding is disbursed, the OPC’s science advisor will coordinate a peer review of the methods proposed above to ensure the approach is technically sound and scientifically robust.

PROJECT GRANTEES:

The Nature Conservancy is a leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. Their mission is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. TNC’s California Coastal and Marine team has substantial expertise in policy, transactions, and habitat conservation planning in California. TNC began work with central coast fishing communities in 2004 when it began its cooperative work with local trawlers to protect sensitive offshore habitats. Through this project, TNC is building on this record of success and these early partnerships by continuing to work with fishermen, community leaders, and government officials to develop this vision for a sustainable future for Central Coast fisheries. In addition to its permits, TNC brings to this project substantial transactional, scientific, and policy expertise needed to create the innovative approaches that will preserve the long-term health and sustainability of the central coast marine region.

PROJECT FINANCING:

Ocean Protection Council	\$1,006,500
Kabcenell Foundation	\$100,000
TNC (permit acquisitions to date)	<u>\$4,000,000</u>
Total Project Cost	\$5,106,500

The anticipated source of Conservancy funds for the grant is the fiscal year 2007-2008 appropriation from the "Safe Drinking Waters, Water Quality and Supply, Flood Control, River and Coastal Protection bond Act of 2006" (Proposition 84). Proposition 84 (Public Resources Code Section 75060) authorizes these funds for expenditure on projects consistent with Section 35650, which establishes the California Ocean Protection Trust Fund. Trust fund monies may be expended for projects authorized by the Ocean Protection Council that are consistent with the

Ocean Protection Act (Division 26.5 of the Public Resources Code).

The proposed project is appropriate for prioritization under the selection criteria set forth in Section 75060(g). Section 75060(g) provides that the Council will give priority to projects which develop scientific data needed to adaptively manage the state's marine resources and reserves and projects that foster sustainable fisheries.

Furthermore, the National Oceanic Atmospheric Administration is contributing to the goals of this project by offering observer coverage for the Conservation Fishing Agreement, vessel and crew time for the Directed Trawl Impact Study, and all costs related to testing the use of electronic monitoring for the Community-based Fishing Association. In addition, The Kabcenell Foundation is providing funds to conduct the site selection for the ROV studies.

Project Milestones

The CCGP is a multi-year ongoing effort, and TNC's original proposal to the OPC requested two years of funding for the Community-based Fishing Association and Conservation Fishing Agreement components and five years of funding for the Directed Trawl Impact Study. As proposed here, *the OPC will authorize a single year of funding* that will help support all three components of the project. Due to the innovative nature of this work, staff is recommending that TNC provide measures of success from this initial support, prior to the OPC considering additional funding for the project in future years. To demonstrate progress within the first year, TNC has agreed to provide the OPC with documentation of achieving certain milestones. These milestones for each project component are outlined below.

Community-based Fishing Association

- Receive federal approval for an Exempted Fishing Permit required to conduct the project, and hire observers and the project manager.
- Complete a process to select fishermen to participate in the Community-based Fishing Association.
- Conduct several months of fishing, and collect fishery-dependent data, as part of the project.
- Complete a survey of community members to assess the effects of the project on community well being.

TNC will provide a report in fall of 2009 describing the effectiveness of the Community-based Fishing Association as a mechanism for organizing fishing effort at the community level.

Conservation Fishing Agreement

- Complete expert review of catch data, gear design, mapping information, and geographic restrictions and prepare an interim report to guide 2009 fishing effort.
- Complete expert review of fishing effort in 2009 and prepare a final report summarizing results, including economic, conservation, and technology lessons learned.

TNC will provide to the OPC copies of the interim and final reports on fishing effort under the CFA in winter 2008 and winter 2009 respectively.

Directed Trawl Impact Study

- Complete identification of sampling sites and conduct baseline surveys.
- Conduct the first round of trawling on “fished” sites and collection of video footage using the ROV.

TNC will provide the OPC a report showing sampling sites and preliminary results of efforts to assess direct impacts of trawling. If necessary, the OPC Science Advisor will be tasked with reviewing the scientific outcomes from the first-year study.

CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:

The proposed project is consistent with the Ocean Protection Act (Division 26.5 of the Public Resources Code) in the following respects:

The Ocean Protection Act identifies trust fund allowable projects in PRC Section 35650 (b)(2) as including projects that:

(B) Foster sustainable fisheries, including development of more selective fishing gear, collaborative research and demonstration projects between persons who fish commercially and scientists, promotion of value-added wild fisheries to offset economic losses attributable to reduced fishing opportunities, and the creation of revolving loan programs for the purpose of implementing sustainable fishery projects.

(F) Provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources.

The proposed project is consistent with the trust fund allowable projects listed above in that the TNC will undertake a sustainable fishery demonstration project, including collaborative research, which will hopefully result in more selective gear and value added wild fisheries. The project will foster collaborative partnerships in central coast communities and help promote local marine resource stewardship and pride. Further, the data and information generated by this project will inform central coast regional management decisions and potentially state and federal efforts as well.

CONSISTENCY WITH THE OPC STRATEGIC PLAN

Goal E (Ocean and Coastal Ecosystems) Objective 4b: “Investigate the feasibility of various sustainable fishery management approaches, such as vessel buy-backs, different quota systems, and limited entry programs. Encourage the development of sustainable fishing gear.” The CCGP is unique in that TNC has already participated in vessel buyouts and the PFMC is considering implementing a quota system. The proposed project will allow the OPC, in coordination with TNC and the local fishermen, to assess what these actions mean for the fishery and how communities can adapt to changing regulatory climates. These lessons could inform future actions by the OPC related to this strategic goal. In addition, the project will help to develop new trawl gear that will result in fewer impacts to ocean benthic communities.

Goal E (Ocean and Coastal Ecosystems) Objective 5a: “Encourage and support new and innovative economic activities that can be conducted in a sustainable manner along or off the

California coast.” This project uses innovative mechanisms (i.e., the Conservation Fishing Agreement and the Community-based Fishing Association) to create a fishery that is both sustainable environmentally as well as economically.

CONSISTENCY WITH OPC’S 2007/2008 FUNDING PRIORITIES

This project is consistent with the strategic opportunity grants section of the Funding Priorities. As that document states, priority will be given to innovative grants designed to:

- Improve management approaches and techniques for coastal and ocean resources
- Improve coordination or data sharing among local, state, or regional entities
- Produce results that can be applied to other areas or regions

The CCGP will achieve all these goals by testing innovative approaches to fisheries management, improving coordination among fishermen in the region and the regional managers at the PFMC and NOAA Fisheries, and sharing data about the outcomes of the project with state and federal fishery managers—information that can guide similar efforts in other regions or states.

CONSISTENCY WITH OPC'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the OPC's Project Funding Guidelines adopted June 14, 2007, in the following respects:

Required Criteria

1. **Directly relate to the ocean and coast:** The project will take place in waters and affect coastal resources off the Central California coast.
2. **Support of the Public:** This project has received a great deal support from the local and regional community including the City of Morro Bay, the Port San Luis Harbor District, the Morro Bay and Port San Luis Commercial Fishermen’s Organizations, Environmental Defense Fund, CDFG, NOAA, NMFS and PFMC and academic institutions. See exhibit 3.
3. **Greater-than-local interest:** The project is regional in scope and if this model proves to be successful, it could potentially be applied in other regions or in other fisheries.

Additional Criteria

4. **Resolution of more than one issue:** This approach not only allows the state to collect the data it needs to manage, but it also promotes working relationships among state and federal agencies, the NGO community, and the fishermen, which are extremely beneficial as the data are applied in a management context.
5. **Leverage:** See the “Project Financing” section above.
6. **Innovation:** This project involves a pioneering approach to implementing sustainable fishery practices and creating a community-based fisheries organization that can organize fishing effort, data collection, and management reforms in the area.

7. **Coordination:** This project involves a wide range of partnerships among community-based organizations, fishermen, NGOs, and the state and federal government.

COMPLIANCE WITH CEQA

The component of this project involving fishing activities is statutorily exempt from CEQA pursuant to 14 Cal Code of Regulations Section 15277 in that these activities will occur outside of California state waters and will be conducted pursuant to trawl permits issued by NOAA Fisheries in compliance with the National Environmental Policy Act. All fishing activities fall within the scope of the Environmental Impact Statement for the management measures for the federal groundfish fishery in 2008 that is prepared by the NOAA Fisheries and the Pacific Fisheries Management Council. Some portions of this project involve only data collection, research, and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource and are therefore categorically exempt from review under the California Environmental Quality Act (CEQA) pursuant to 14 Cal. Code of Regulations Section 15306. Staff will file a Notice of Exemption upon approval by the Council.