

Chapter 5. Implementation and Costs

Implementation Activities

When implementing the NFMP Project's management strategy, the Department will carry out three principal types of activities, using the 21 scientific, management, and administrative staff currently dedicated to nearshore finfish management.

Management

- analyze data, prepare stock assessments, and review management approaches already in use in California and elsewhere
- prepare overviews, analyses, and information for consideration by constituents
- convene meetings and make presentations about management issues
- receive comments and factor them in with other information to develop management options
- draft amendments and proposed research protocols
- present management options or amendments to the Commission along with the rationale used to support them
- coordinate with the Council for nearshore and shelf groundfish resources

Enforcement

- ensure compliance with regulations through enforcement and education activities
- collaborate with scientific staff in conducting research from enforcement vessels
- participate in reviews of the effectiveness of the NFMP Project's management strategy, and suggest changes
- act as an in-the-field conduit for information to Department managers

The Marine Region deploys 57 law enforcement officers. Fourteen officers (two Patrol Lieutenants and 12 Fish and Game Wardens) and one Motor Vessel Engineer are funded by MLMA. These 14 officers are dedicated to nearshore fishery law enforcement. Officers enforce all provisions of the FGC and CCR Title 14.

Marine Region officers patrol ocean waters and shoreline for violations of regulations on gear, closures, limits, species, etc. They also conduct inspections of landings, wholesale and retail facilities, restaurants, and vehicles used to transport fish. Large and small patrol boats, vehicles, aircraft, radar, night vision equipment, satellite imagery, computer databases, and undercover operations are utilized to apprehend violators. One 54 ft patrol boat was funded by the MLMA; however, all the Department's marine patrol boats and crews enforce nearshore fishery provisions.

Officers dedicate a great deal of their time to informing and educating the public about fishing regulations, meeting with commercial, sport fishing, environmental, and special interest groups; and appearing at public and private schools, fairs, expositions and other public events.

Research

Research will include assembling, updating, analyzing, and disseminating information about the fishery. Researchers will also conduct monitoring and research programs identified in the NFMP, and collaborate with constituents and researchers on assessing and monitoring the developing projects.

Current fishery-dependent and fishery-independent research is described in Section 1, Chapter 2 of this document.

Current and Future Management, Enforcement, and Research Efforts and Costs

Based on annual expenditures for the fiscal year beginning 1 July 2000, baseline costs for management of the nearshore finfish fishery amounted to \$3.782 million. These costs were allocated among the three principal types of activity:

- Management: \$1.294 million
- Enforcement: \$1.382 million
- Research: \$1.106 million

The Department anticipates increased management and enforcement costs in implementing the NFMP. The research plan described in a previous chapter includes creation of a coordination unit and of four regional assessment teams. The costs associated with implementing this plan for fishery-independent and fishery-dependent research and monitoring, as well as socio-economic studies and restricted access are:

Fishery-Independent Assessment

Monitoring and assessment of nearshore fisheries and ecosystems will be carried out by four regional assessment units:

- Coordination Unit:
Staffing summary: 1 Personnel Year (PY) Research Director - Senior,
2 PYs Scientist, 2 PYs Scientific Aide/Fishery Technician
Estimated annual cost: \$290,000
- North Coast Region:
Staffing summary: 1 PY Scientist, 2 PYs Temporary Help
Estimated annual cost: \$102,000 (Redirected - \$76,500 New - \$25,500)
- Central Coast Region:
Staffing summary: 3.5 PYs Scientist, 16.5 PYs Temporary Help
Estimated annual cost: \$1,224,000 (Redirected - \$917,500 New - \$306,500)
- South Coast Region:
Staffing summary: 3 PYs Scientist, 15 PYs Temporary Help
Estimated annual cost: \$848,000 (Redirected - \$636,000 New - \$212,000)

- Operating expenditures: \$500,000
- Research: The research plan also includes research to improve information on key biological parameters for nearshore finfish. Chief among these is the validation of methods for ageing each of the 19 species. The costs for this activity are:

Staffing summary: 1 PY Scientist , 2 PYs Laboratory Technician, 3 PYs
Temporary Help
Estimated annual cost: \$238,700

Fishery-Dependent Monitoring

The Department's statistical database and landing receipt program provide vital information about fisheries. The research plan proposes improving this system by adding two programmer positions to improve the process of extracting data.

Staffing summary: 2 PYs Computer Programmer
Estimated annual cost: \$170,000

The quality of fishery-dependent information depends upon improving the ability of fishermen and non-consumptive users to collect accurate information, including identification of the diverse nearshore species. Scientific and enforcement staff will conduct informational outreach to these groups.

Staffing summary: 0.75 PY Scientist, 1 PY Temporary Help
Estimated annual cost: \$157,000

Socio-Economic Studies

As described in the research chapter, the NFMP proposes a plan of socio-economic studies that will assist in evaluating the impacts of management, among other things. To address the need for information on key economic indicators, the NFMP presents a plan for periodic user-surveys to acquire the following information:

- expenditures, preferences, and demand information regarding the recreational fishery
- expenditures, preferences, and demand information on non-extractive uses and environmental qualities
- costs, preferences, and demand information about commercial fishermen and receivers
- consumer expenditures, preferences, and demand information for fishery dependent products or services

The necessary studies, conducted over a 4-year period, would cost an estimated \$631,900:

\$401,400	Recreational fishery and non-extractive use socio-economic survey
\$ 43,700	Commercial fishermen and receivers socio-economic survey
<u>\$186,800</u>	Commercial fishery products end-user survey
\$631,900	Total Cost

Restricted Access

Establishing Restricted Access regionally will require working groups in each of the regions adopted by the Commission. Using three regions, the cost for developing regional Restricted Access will be \$90,000.

Restricted Access Working Group Meetings: 3 per region
Meeting Cost: \$10,000/meeting X 9 = \$90,000

Summary of Estimated Future Annual Costs to Obtain EFi

<u>Description</u>	<u>Baseline</u>	<u>Redirection</u>	<u>New</u>
Management	\$1,294,000		
Restricted Access			\$ 90,000
Regional Allocation			\$ 90,000
Enforcement	\$1,382,000		
Research	\$1,106,000		
Coordination Unit		\$290,000	
North Coast Region		\$ 76,500	\$ 25,500
Central Coast Region		\$917,500	\$306,500
South Coast Region		\$636,000	\$212,000
CFIS/MFSU			\$170,000
Socio-economic Studies			\$210,633
Stock Abundance Studies			\$500,000
Age/Growth Studies			\$238,700
Education/Outreach			<u>\$157,000</u>
Total Implementation Cost	\$3,782,000	\$1,920,000	\$2,000,333

It is anticipated that most of the enforcement costs will be needed for activities related to marine protected areas (MPAs). The implementation of MPAs is not anticipated until 2005. Estimated additional enforcement costs are \$1.1 million, depending on MPAs, annual adjustments of seasons, and quotas adopted by the Commission. **These costs are based on three regions. With the adoption of four regions, costs will change accordingly.**

Source of Funds

The Department's management of commercial and recreational fisheries has been supported by general funds appropriated by the Legislature, by federal funds for commercial and recreational fishing, and by user fees in the form of permits, licenses, and other fees [FGC §710.5]. In FGC §711(c), the Legislature stipulated that revenues for hunting and sport fishing programs not be used for other purposes, including commercial fishing. In 1993, the Legislature reiterated its intent to ensure adequate funding from appropriate sources [FGC §711].

Objectives:

1. Help ensure that fees more accurately reflect all costs of the Department's management [FGC §710.5].
 - prioritize research, monitoring, and public information needs and identify funding costs and sources, as well as funding gaps
 - consider costs of implementation in choosing management options
 - identify the resources and time necessary to monitor and evaluate proposed management actions
2. Identify the resources and time necessary to acquire essential fishery information [FGC §7081(b)].
3. Cooperate with the Legislature and the commercial fishing industry to identify alternatives sources of funding for "the department's necessary marine resource management and protection responsibilities" [FGC §710.7(c)]. Investigate and propose new means of long-term funding for research and management of the nearshore fishery.

Coastal Impact Assessment Program (CIAP)

The NFMP has discussed the importance of recreational and commercial landings data as major, and often the only sources of information on trends in fisheries and fish populations. This is true for the nearshore fishery, as well as other fisheries managed by the State. The approach to management of the nearshore fishery described in the NFMP will require the most accurate and timely information available from an improved monitoring program. Recent federal funding (CIAP) is available to conduct a review of the Department's current commercial and recreational fisheries monitoring programs, including the nearshore fishery; review systems in use by other state, federal, and Canadian fisheries agencies; develop a new system for California commercial fisheries, and recommend a new program for the State's recreational fishery monitoring. While the benefits of this review will extend well beyond the nearshore fishery, this relatively newer fishery will greatly benefit from improvements in monitoring, sampling, and data collection and analysis. Addressing the status of nearshore fishery resources for the preparation of the NFMP has highlighted the limitations of the existing data collection programs. It is critical that concerted effort be directed to improving these functions now. As a result, not only will the resource itself benefit from sound management practices founded upon proper monitoring, sampling, and data collection and analysis, but non-consumptive and consumptive uses will benefit as well. These improvements, when implemented, should also result in more effective management, and increase public confidence in management of fisheries.

Until this review is completed, it is critical that existing programs be continued to maintain and create long-term databases necessary for proper resource management. The Department is directly dependent upon these CIAP monies to complete review activities and to produce revised monitoring programs, so that changes to monitoring programs can be implemented.

Funding sources cover sampling and data collection in a vast arena of the marine management of California's coastal resources, as stated above. This review will also benefit programs monitoring, for example, coastal pelagic species, highly migratory species, and some invertebrates. Estimated CIAP cost allotments will be \$200,000 for the recreational sector and \$300,000 for the commercial sector.