

## **Chapter 8. Implementation Requirements**

This chapter provides estimated costs for the implementation of the WSFMP. The costs are grouped into the categories of enforcement, ongoing and future research, and administrative management. Estimating the individual costs of implementing the WSFMP is made by estimating the time to perform certain tasks such as the enforcement of regulations, collecting data, and reviewing documents. Generally, these kinds of costs are underestimated, because there is no way to determine how difficult some issues may be. Nevertheless, estimates are useful for determining what the actual costs may be and for comparing different options that may be proposed. These cost estimates include expenditures that are incurred regardless of whether or not the WSFMP is partially or fully adopted. These expenses are termed “sunk” costs and equate to the costs of enforcement, data collection, and monitoring that the Department must perform as part of its resource stewardship charge.

### **8.1 Enforcement**

Due to the extensive size of California, it is necessary to employ a variety of measures to ensure the protection of California’s wildlife and compliance with the laws of the State. These measures include land-based, ocean-based and air-based enforcement activities. With few exceptions, costs within the Department are attributed to programs (e.g., MLMA, Environmental License Plate Fund) and not to specific species. Thus, it is impossible to determine exactly how much it costs to enforce existing white seabass laws and regulations. However, a reasonable approximation can be calculated by determining the percentage of white seabass landings within the total number of all nearshore finfish landings made in the year 2000. The resulting percentage can then be multiplied by the total cost of nearshore enforcement in 2000. Enforcement personnel hours coded to MLMA were used because they represent nearshore enforcement activity. These hours were further limited to only those in the southern patrol district (Monterey County line to the U.S./Mexico border) since white seabass are primarily taken in the nearshore waters of southern California.

The estimated cost of enforcing nearshore Fish and Game laws in the southern patrol district in 2000 was approximately \$562,591 (Table 8-1). Of this amount, an estimated \$50,633 can be attributed to time spent on the enforcement of white seabass laws and regulations. If fishing effort and/or landings increase, the subsequent cost of enforcing Fish and Game laws and regulations will increase.

Table 8-1. Enforcement costs in 2000			
	Cost of all nearshore enforcement	Estimated cost for white seabass enforcement	
Game Warden Salaries	\$393,983.00	\$35,458.00	
Benefits at 32%	<u>\$126,075.00</u>	<u>\$11,347.00</u>	
Subtotal	\$520,058.00	\$46,805.00	
Operation expenses (travel, postage, telephones, auto and boat fuel, misc. equipment)	\$35,444.00	\$3,190.00	
Overhead at 20%	\$7,089.00	\$638.00	
Subtotal	<u>\$42,533.00</u>	<u>\$3,828.00</u>	
Total	\$562,591.00	\$50,633.00	

## 8.2 Ongoing and Future Research

### Ongoing research

In order to fully realize the goals and objectives of the WSFMP, it will be necessary to continue monitoring the commercial and recreational landings of white seabass. The monitoring effort will need to consist of the collection of fishery dependent data such as commercial fishing landing receipts, commercial fishing and CPFV logbooks and the dockside collection of biological data (e.g., length, weight) from both user groups. Once annual catch data are collected and edited for accuracy, they will be analyzed for short and long-term trends in the white seabass fisheries. The estimated costs of gathering these data are substantial. They have been separated into two categories; 1) statistical data and 2) biological sampling (Table 8-2, 8-3). Since the 1916, the Department has maintained the Commercial Fisheries Information System (CFIS) database. The annual cost of inputting, editing, and maintaining the white seabass recreational and commercial fisheries information in the CFIS system is an estimated \$16,411.00.

Since 1983, the Department has conducted a market sampling program for white seabass, other nearshore finfish, sharks, swordfish and invertebrates such as spot prawn and ridgeback prawn. This sampling program involves opportunistic sampling of the commercial catches in the counties of Santa Barbara/Ventura, Los Angeles/Orange, and San Diego. In 1998, Department samplers began to scan commercially-caught white seabass with a coded-wire tag detector to determine if hatchery-reared fish were contributing to the commercial fishery. The annual cost of maintaining the fishery dependent sampling program described is approximately \$91,000.00.

Table 8-2. Estimated cost of collection and maintenance of statistical (landing receipt, CPFV and commercial logbook) data. Pm = cost per person per month.	
Editing receipts and logs; data entry	\$679.00
Maintain databases	\$287.00
Printing receipts and logbooks	\$5,000.00
Supplies	\$500.00
Telephones	\$360.00
Mailing	\$1,500.00
Personnel - (1 Pm at Marine Biologist level, 1 Pm at Program Technician level)	\$6,125.00
Benefits at 32%	<u>\$1,960.00</u>
Total	\$16,411.00

Table 8-3. Estimated cost of fishery dependent biological sampling. PY = annual salary or wage per person.	
Personnel costs - 2.5 PY at Scientific Aide level	\$56,970.00
Travel and vehicle maintenance	\$8,000.00
Supplies	\$3,500.00
Telephone	\$825.00
Data processing	\$900.00
Rent	\$6,000.00
Training	\$1,000.00
Indirect costs	<u>\$13,802.00</u>
Total	\$90,997.00

All of the above costs summarize the effort now directed toward white seabass dependent data collection through the use of Fish and Game Preservation Fund and Sport Fish Restoration Act monies. Since these costs will continue with or without the WSFMP, they can be considered sunk costs (pre-existing commitment of funds with anticipated continuation). The total cost of collecting fishery dependent data is \$107,408.00.

Another heavily relied upon source of fishery dependent data available to the State is the Marine Recreational Fisheries Statistics Survey (MRFSS), conducted by the Pacific States Marine Fisheries Commission. This coastwide sampling program intercepts recreational anglers at launch ramps, piers and jetties, and on CPFV vessels. MRFSS data are presently provided free of charge, and are currently our only source of information on the take of white seabass by shore-based and private or rental boat fishermen. These user groups take more than 50% of the recreational white seabass catch. In the future, it may become necessary for the Department to provide funding for the MRFSS program if the current funding provided by NMFS is reduced or eliminated, as in 1991 through 1993, or if the funding is not increased on an annual basis as needed. Should either of these events occur, the State would need to find another way to estimate recreational take for private/rental boats and shore-based fishing or provide up to \$400,000 annually to maintain the southern California portion of the MRFSS study.

Future research

Despite being an important species to the recreational and commercial fisheries of the State, very little biological information has been gathered on white seabass in the past 30 years and the current knowledge of the essential fisheries information is limited (see Section 7.3). One of the most pressing needs is a current stock assessment. Also, there are several fishery-based issues that need to be addressed, such as, hooking mortality and survival rates for white seabass released by commercial and recreational fishermen. An on-board observer program is needed to determine accurate estimates of bycatch associated with the commercial white seabass fishery. Genetic studies are needed to determine the variation within wild seabass stocks and the effect, if any, hatchery-reared stocks may have on these stocks. The costs summarized in Table 8-4 can be viewed as either new costs required by the WSFMP, or the reallocation of more of the Marine Region budget from other species to white seabass.

Table 8-4. Cost of fishery independent data collection. PY = annual salary or wage per person.	
Personnel costs (1.5 PY at Associate Marine Biologist level; 1 PY at Permanent Intermittent Marine Biologist level)	\$123,546.00
Benefits at 32%	\$39,535.00
Travel, supplies, fuel, gear, etc.	\$150,000.00
Overhead at 20%	\$30,000.00
Ship time (20 days)	\$70,000.00
Special surveys (22 days)	<u>\$4,400.00</u>
Total	\$417,481.00

In addition to the costs described in Table 8-4, it would be necessary to contract for further investigation of white seabass genetics and additional work on white seabass habitat needs. The approximate cost of contracting for this work would be \$200,000 annually for a three-to five-year period.

The combined cost of conducting research, including the costs of collecting and maintaining statistical data; the collection of fishery dependent and fishery independent data by the Department; fishery independent data studies conducted through contracts; and, possibly funding MRFSS sampling is estimated to be between \$724,889 and \$1.2 million annually.

## **8.4 Administrative Management**

The following cost estimates (Tables 8-5 through 8-7) cover the managerial aspects of implementing the WSFMP. These estimates are based on staff processing time and costs above the staff level are included in overhead costs. This section does not address the question of whether or not there is sufficient staff or personnel time available to complete the tasks associated with the implementation of this FMP.

### **8.4.1 Coordination of the White Seabass Fishery Management Plan**

The implementation of the WSFMP will require that Department staff perform a variety of new activities which include:

- Analyze commercial and recreational catch data;
- Prepare reports on current fishery and oceanographic trends;
- Prepare updates on research for the WSSCAP and the Commission;
- Organize annual Advisory Panel meetings and other public meetings pertaining to white seabass fisheries;
- Prepare reviews of management recommendations made by the WSSCAP or by other interested parties to address potential impacts to the white seabass resource and socioeconomic impacts on user groups;
- Prepare various notices and regulatory packages necessary to maintain compliance with the Administrative Procedures Act (i.e., notice of intent, rule making packages) and with CEQA.

In addition, the Department staff will need to travel to public meetings and Commission hearings to give presentations, answer questions and take notes on public input. The estimated annual cost associated with the coordination of the WSFMP is \$73,966.00 (Table 8-5).

Table 8-5. Administrative cost of coordination for the WSFMP. PY = annual salary or wage per person.	
Personnel - (0.5 PY at Associate Marine Biologist level; 0.5 PY at Office Technician level)	\$46,944.00
Benefits at 32%	\$15,022.00
Operating expense/travel	\$10,000.00
Overhead at 20%	<u>\$2,000.00</u>
	\$73,966.00

### 8.4.2 Annual Meetings

A meeting of the White Seabass Scientific and Constituent Advisory Panel will be held annually at the Department's Los Alamitos office in southern California. The members of the WSSCAP volunteer their time, however, the Department will reimburse them for mileage and per diem lodging and meals. Assuming that the Panel consists of seven members who will attend each meeting, the maximum cost of each of these meetings will be \$1,655.50 (Table 8-6).

Table 8-6. Costs associated with the annual White Seabass Advisory Panel Meeting (seven panelists)			
Per Diem (\$135/day)	1.5 days	\$202.50	\$1,417.50
Travel (\$0.34/mile)	100 miles	\$34.00	<u>\$238.00</u>
Total per meeting			\$1,655.50

### 8.4.3 Publication of White Seabass Amendments

As the need arises, the WSFMP will undergo amendment. The costs associated with amending the plan are covered under the costs of coordinating the WSFMP (Section 8.4.1 above). However, the production and publication costs were not included in that section. The MLMA and CEQA require that all interested parties have an opportunity to review any proposed changes prior to a Commission hearings on the topic. Any

WSFMP amendments will be sent to all Fish and Game regional offices and federal depository libraries in the State. In addition, notices will be sent out to all interested individuals and fishery participants whenever possible. The cost associated with amending the WSFMP is estimated to be \$6,382.00. (Table 8-7).

Publication of notices & amendments (200 copies)	\$6,000.00
Mailings (200 pieces @ \$1.40)	\$280.00
Mailings (300 pieces @ \$0.34)	<u>\$102.00</u>
Total	\$6,382.00