

**CALIFORNIA COASTAL COMMISSION**

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400

**W8A**

March 2, 2001

To: Commissioners and Interested Persons

From: Peter Douglas, Executive Director  
Susan Hansch, Chief Deputy Director  
Rebecca Roth, Federal Programs Manager  
Susan Swift, Federal Programs Analyst

Subject: **CZMA §309 Enhancement Grants Program—Assessment and Strategy, Item 8A, Wednesday, March 14, 2000**

---

**Recommendation**

Staff recommends that the Coastal Commission review, hear public testimony and endorse the proposed Updated Assessment and Strategy of the California Coastal Management Program addressing program enhancements under Section 309 of the Coastal Zone Management Act.

Staff will make refinements to the proposed assessment and strategy at the close of public comments on April 2, 2001 and submit the final document to OCRM for approval and to the Commission for information. In the event that the staff believes that public comments warrant substantive changes to the proposed document, the staff will bring the document back to the Commission for review in April.

**CZMA Background and Summary of Action Item**

The federal Coastal Zone Management Act of 1972 (CZMA) established a voluntary program to encourage states to develop and implement programs to manage the nation's coastal resources. The CZMA establishes minimum standards for state coastal management programs and provides federal grant assistance and federal consistency authority to states with approved programs. In 1977 the California Coastal Management Program (CCMP) was approved as meeting the standards of the CZMA.

Pursuant to the Federal Coastal Zone Management Act (CZMA), the Secretary of Commerce is authorized to make grant funds available to any coastal state with a federally approved Coastal Management program. A number of sections contained within the CZMA provide for the pass-through of federal grant funds. The primary source of grant funding used to implement the Commission's core program has statutorily been appropriated through Section 306 of the CZMA. For the past ten years the Coastal Commission has been granted from \$1,900,000 to \$2,000,000 annually.

The §309 Enhancement Grant Program, established through the CZMA as amended in 1990, provides funding for the Coastal Commission to evaluate and enhance the California Coastal Management Program (CCMP). Through this program, the Coastal Commission receives an average of \$410,000 per year and has been awarded up to \$630,000 in one fiscal year for CCMP enhancement projects. The Coastal Commission, working with the Office of Ocean and Coastal Resource Management (OCRM), periodically reviews the CCMP to assess the program's priority needs for improvement and to establish a strategy to meet those objectives. The Secretary of Commerce is authorized to make grant awards in support of the objectives identified by the strategy.

Staff is presenting the Updated Assessment and Strategy of the California Coastal Management Program (Assessment and Strategy) to the Commission for discussion and action. The two-part document provides a description and assessment of coastal program needs in nine enhancement areas.

As explained below, there are nine core program areas that states should consider for enhancement activities identified by §309 of the CZMA. The Coastal Commission's draft Assessment has identified five of the nine as high priorities:

- 1) cumulative and secondary impacts;
- 2) special area management plans;
- 3) public access;
- 4) wetlands; and,
- 5) coastal hazards.

The Strategy proposes a set of management tasks designed to achieve enhancements of the CCMP in the high-priority areas. The principal purpose of the Strategy is to describe projects the Coastal Commission will undertake to meet the priority enhancement area needs identified in the updated Assessment. The Strategy will serve as an internal guide for Coastal Commission staff in applying for Section 309 grant funding and in guiding implementation activities for the next five years.

## **Public Review and Comment**

As required by the federal guidelines, the Assessment portion of the draft document will be circulated for public review for a 30-day comment period that begins March 2, 2001. The February agenda contained a notice alerting the public to the availability of the document. Members of the public who are interested may request copies of the draft and final documents. The full text of the draft Assessment and Strategy will be available at the Commission hearing and on the Commission's web site ([www.coastal.ca.gov](http://www.coastal.ca.gov)). Staff will submit, pursuant to federal guidance, the final Assessment and Strategy to OCRM by April 2, 2001, for consideration as part of the Section 309 grant review process.

## **Background on CZMA Section 309 Enhancement Grants Program**

Section 309 of the Coastal Zone Management Act (CZMA), as amended in 1990 and again in 1996, establishes a voluntary coastal zone enhancement grants program to encourage states and territories to develop program changes in one or more of nine coastal zone enhancement areas. These enhancement areas are: wetlands, public access, coastal hazards, cumulative and secondary impacts, energy and government facility siting, marine debris, ocean resources, special area management plans, and aquaculture.

Under the program, the Secretary of Commerce is authorized to make awards to states and territories to develop and submit for federal approval program changes that support achievement of the objectives of one or more of the enhancement areas. Section 309 further requires OCRM to identify, in close cooperation with each state, that state's priority needs for improvement; and, to evaluate and rank funding proposals.

## **Components of Assessment and Strategy as Required by OCRM**

OCRM has provided states with guidance in order to complete the Assessment and Strategy document. Specifically, the Assessment should include the following:

- Identification of changes that have taken place within each of the nine Section 309 enhancement areas, including problems that have been addressed, new issues that have arisen, and changes in the status of the resources;
- Description of the nature of problems, changes in the status of resources, or new issues, including the extent to which they are being addressed and their relative importance
- Discussion of the basis for determining the priority needs for improvement of the coastal management program; and,
- An opportunity for the public to learn more about accomplishments under section 309 and to comment on the California's identification and justification of current priority needs, as well as the possible means that the state is considering to address the identified needs.

The Strategy should explain, with adequate detail, the conceptual program of the CCMP and the implementation activities for the next five years. OCRM will review California's Assessment and Strategy to determine whether the Assessment has been successfully updated and whether the Strategy is acceptable or unacceptable. States and territories that receive an acceptable ranking will receive funding based the standard allocation formula. This evaluation will occur within the context of each state's coastal resource management needs, its existing coastal management program, and its governmental structure.

## **SUMMARY OF THE UPDATED 309 ASSESSMENT**

### ***I. High-Priority Enhancement Areas***

#### **Cumulative and Secondary Impacts**

The focus of the Commission's §309 Strategy has been to use the framework developed by the Regional Cumulative Assessment Project (ReCAP) to improve the management of cumulative impacts. Since the 1997 Assessment and Strategy, the Commission has significantly improved its ability to manage cumulative impacts with a number of measures. Some highlights include:

- Managing cumulative impacts in the Santa Monica Mountains (SMM)/Malibu area through the ReCAP study and implementing the recommendations to improve cumulative impacts management in the region through coastal development permits and for use in LCP preparation.
- Assessing cumulative impacts in San Luis Obispo County using the ReCAP framework; and,
- Creating geographic information systems (GIS) for both the SMM/Malibu ReCAP and the San Luis Obispo County ReCAP, allowing systematic analysis of geospatial characteristics.

The entire California coast should continue to benefit from the analysis and trends-projection undertaken in the ReCAP process. This objective should be accomplished through the application of the Regional Periodic Program Review Guidance developed under the §309 program. To realize the greatest potential for this regional review process, the Commission may need to seek additional financial and legislative support. The Commission should continue to provide incentives for local governments to, complete, update, or amend their local coastal programs (LCPs). Additionally, methods are needed to update local land use plan (LUP) maps and to assist local governments in comprehensively evaluating the cumulative effects of LUP amendments. Other needs include improved information management and GIS capability and maintaining existing GIS.

#### **Special Area Management Plans (SAMP)**

CZMA Section 309(a)(6) provides for coastal states to prepare and implement special area management plans for important coastal areas. The Coastal Commission addresses this provision primarily through LCPs, and also through other resource and management plans in important coastal areas. The Coastal Act recognizes the importance of ongoing monitoring, evaluation, and update of LCPs in order to provide effective coastal management.

There have been few changes in the state's SAMP program since the last Assessment. Between September 1996 and December 2000, the Commission certified three new Land Use Plans and three new Implementation Plans, with six new LCP areas becoming fully certified and issuing permits. Other changes included LCP

amendments, the LCP grant program, funding for new periodic review staff, and participation of staff on the Marine Management Area Master Plan Teams.

The 2001 Assessment identifies SAMP as a high-priority enhancement area, representing a change from the previous Assessment. The LCPs that act as SAMPs for important coastal areas need to be updated in order to be legally adequate. There have been a number of significant changes made in the field of coastal management in recent years. Some of these changes have occurred due to changes in statute, such as the Coastal Nonpoint Source Pollution Program and Habitat Conservation Planning. SAMPs also need to reflect an updated knowledge brought about through regional cumulative assessments, such as securing new and protecting existing public access to the coast.

### **Hazards**

The cumulative growth of coastal development has led to a demand for shoreline protective devices. Additionally, the impacts of shoreline and bluff erosion from development activities have had cumulative effects on shoreline sand supplies. Since 1997, through the ReCAP program, the Commission has documented the loss of recreational beach areas and projected an increase in future armoring if current policies continued. Based on the ReCAP analysis, the Commission published the Beach Erosion and Response (BEAR) guidance document. BEAR provides information about improving mitigation measures for projects affecting sand supply, alternative approaches to armoring, and training materials about beach erosion issues. The cumulative assessment projects have also produced recommendations for improving policies related to setback determination and other hazard management mechanisms.

The 2001 Assessment recognizes that the program continues to need methods to minimize the cumulative impacts of development on the coast. A summation of the needs identified in the Assessment include improvements in:

- Training about coastal hazards for commission and local government staff;
- Technical resources, such as statewide inventories, surveys, mapping;
- Beach nourishment programs;
- Long term studies to assess the effectiveness of hard structures along the coastline;
- Alternatives to armoring, including such measures as improved setback policy and avoidance of hazard areas;
- Reevaluation of the existing definition of “bluff edge” in the interpretive guidelines;
- Addressing wildfires as a coastal hazard; and,

- Guidance for major watershed projects for addressing impacts to sand supply.

## **Public Access**

The cumulative effects of California's growth on public access are significant. Since 1997, the Commission has achieved key improvements to the Public Access program, implemented through the §309 program, with ReCAP as a catalyst. Most notably, the program enhancements have substantially improved the offer-to-dedicate (OTD) program. A new public access inventory database has dramatically improved tracking of OTDs. Additionally, the Commission has actively encouraged others, such as local governments, non-profit organizations, and state agencies, to accept OTDs. To help further educate these groups, the Access Program has held workshops about OTDs and jointly published booklets about operating, maintaining, and funding OTDs.

Support at the state level has also helped improved the Commission's Public Access Program. The California legislature passed a bill to increase liability funds available for litigation defense when lawsuits arise from personal injury claims on public accessways. Additionally, the Governor approved state funding for two new staff positions in the Access Program.

The current Assessment notes that both Commission and local governments need to continue to address cumulative impacts to public access to and along the coast. The work includes opening additional access and maintaining the quality of existing access opportunities. Some of the specific needs of the program are:

- Continued application of the ReCAP framework to undertake the periodic review of access components of LCPs;
- Improvement of the local governments public access policies;
- Monitoring and data collection to support cumulative impacts analysis;
- Continued improvements to the OTD program;
- Development of innovative funding mechanisms for public access;
- Creating comprehensive maps to support completion of the statewide Coastal Trail;
- Identifying and prioritizing the public historic prescriptive rights of beach use within the coastal zone;
- Improving management of polluted runoff to reduce beach closures; and,
- Creation of beach management plans.

## **Wetlands**

Cumulative and secondary impacts from various forms of development continue to threaten the remaining wetlands in California. Since 1997, the ReCAP studies and other §309-related wetland projects have resulted in, or contributed to, improvements to the CCMP. The Commission has achieved a number of accomplishments, condensed here, in its efforts to protect and enhance wetlands.

During the last 5 years, staff has worked on management plans and LCPs for specific wetlands within the coastal zone. To further protection and restoration of wetlands, staff has explored the concept of mitigation banking and the Commission is hosting a fellow who is developing a wetlands inventory for four counties. In the field, staff has improved its analysis of wetlands by consistently using the Hydrogeomorphic Approach (HGM) for assessment and delineations. The Commission has also increased outreach about wetlands and improved its interagency communication because of enhancement program-related projects, like ReCAP and the Nonpoint Source Pollution program.

To build on the enhancements made to the CCMP in the area of wetlands, the Commission needs to improve communication, research, technical assistance, and management of cumulative impacts. The following is a partial list of these needs:

- Research in and consistent implementation of adequate sized buffers and transition zones;
- Review of wetlands and watershed management policies of LCPs;
- Interagency procedures for monitoring wetland development, mitigation, and restoration;
- Refined criteria for permit conditions and mitigation and restoration policies;
- Implementation of a non-point source water pollution program to protect wetlands;
- Review and incorporate scientific data and information into the CCMP;
- Access to technical information for Commission staff; and,
- Funding to participate in interagency and interdisciplinary forums.

In addition, the program should consider pursuing legislative changes, such as amendments to the Coastal Act to establish wetland buffer requirements and to clarify what activities are considered development under the Coastal Act.

## **II. Medium-Priority Enhancement Areas**

### **Ocean Resources**

Through its regulatory and planning program, the Commission plays a critical role in protecting and managing ocean resources and uses in state waters and in coordinating state interests in federal waters. The state has made progress in enhancing its ocean management through a number of programmatic changes. During the Assessment period, California received federal approval the *Plan for California's Nonpoint Source (NPS) Pollution Control Program*. In addition to this major program change, there have been many single purpose statutes, such as amendments to existing laws and new statutes affecting ocean resources. At the staff level, the Commission continues to participate on statewide working groups and in regional planning efforts. Additionally, Commission staff participates as a member of the Resources Agency Sea Grant Advisory Panel, which guides the priorities for State matching support of Sea Grant projects.

Ocean resources continue to be stressed by human activities. To enhance the CCMP, the Commission should continue to address major needs in this area. The program would benefit from the following:

- Guidelines for conservation and protection of ocean resources and uses;
- Policy priorities and guidelines for managing the state's interests in federal waters;
- Improvements to interagency management of ocean resources;
- Focused attention on watershed management and control of polluted runoff;
- Research on the long-term affects of fresh water nuisance flows and NPS pollution;
- Improved policies to minimize risks from offshore vessel traffic;
- Program improvements to clarify and integrate the Commission's responsibility for oil spill prevention and response with applicable federal consistency requirements, if any;
- A programmatic environmental impact report on fiber optic cable projects; and,
- Focusing on ocean policy analysis in components of the state's educational system.



### **III. Low-Priority Enhancement Areas**

#### **Marine Debris**

One of the Section 309 programmatic objectives is to develop or revise programs that reduce the amount of marine and lake debris in the coastal zone. In terms of the overall trend, local beach managers continue to report reductions in apparent litter. Marine debris concerns have been integrated into marina and harbor pollution control initiatives. Other avenues have been through the public education and the NPDES storm drain discharge programs. Through these efforts, the public's awareness of the impact of marine debris has greatly increased. Additionally, a beverage container recycling was broadened in 2000, expanding the types of beverage containers covered by the California Refund Value program. This step should further reduce marine debris.

The Updated Assessment identifies marine debris as a low-priority, which represents a change from the 1997 Assessment. However, marine debris remains a significant problem on the California coast and one that will require extensive intergovernmental and public cooperation to solve. The Commission's successful campaign to qualify a new Coastal Protection license plate will provide an ongoing funding source for the Coastal Commission's marine debris programs. The license plate sales also support local programs to reduce marine debris.

#### **Energy and Governmental Facility Planning**

The Section 309 programmatic objectives include: 1)enhancing existing procedures and long-range planning processes for considering the needs of energy-related and government facilities and activities of greater than local significance, and 2)improving program policies and standards which affect the subject uses and activities so as to facilitate siting while maintaining current levels of coastal resource protection. California's energy landscape has changed in many ways in recent years. Commission staff has addressed some of these changes by participating in several interagency workgroups. In other work, staff is reviewing oil-spill response plans (OSRPs) for existing federal offshore oil platforms; a proposal to drill two exploratory wells, and government activities on federal lands

To enhance the Energy program, the Commission needs to address problems with mitigation conditions. The program needs:

- Adequate measures to monitor the mitigation detailed in permits and certifications;
- Ways ensure that conditions actually function to alleviate adverse environmental impacts;
- Better mitigation monitoring, reporting, record keeping;
- Correction of unsuccessful mitigation measures; and,

- Requiring independent monitoring.

In addition, the Energy program needs to improve coordination with governmental agencies, involve the public early in the evaluation of complex and controversial projects, and address the conversion of offshore platforms to artificial reefs. The major need of CCMP in relation to Government Facilities is to continue working with the OCRM and other federal agencies to improve the federal consistency process in order to increase efficiency and address emerging issues.

### **Aquaculture**

Aquaculture is an important industry in California. However, there are numerous impacts related to this development activity, such as water quality effects, introduction of pathogens or exotic species to the ecosystem, impacts to native species, habitat damage, scenic impacts, and marine debris issues. The updated Assessment identifies the need to improve coordination between the existing regulating agencies to address these impacts. A procedural guidance document that compiles and analyzes Commission and local government permits for aquaculture facilities would help improve the CCMP.

## **SUMMARY OF THE UPDATED §309 ENHANCEMENT STRATEGY**

The principal purpose of the Strategy is to describe projects the Coastal Commission will undertake to meet the priority enhancement area needs identified in the updated Assessment. The Strategy builds upon the Assessment, explaining the conceptual program changes that will occur to meet the program needs. The Strategy will serve as an internal guide for Coastal Commission staff in applying for Section 309 grant funding and in guiding implementation activities for the next five years.

Although there have been significant improvements in managing cumulative impacts under the CCMP as a result of the §309 program, the 2001 updated Assessment identifies a continuing need to improve the management of cumulative impacts in priority areas throughout the coastal zone. The Strategy outlines a five-year plan for applying the ReCAP framework to achieve program changes that will address the priority needs identified in the updated Assessment.

The Strategy identifies program changes in four areas:

- Implementation of Regional Cumulative Assessment Project (ReCAP) recommendations pertaining to local coastal program policies and ordinances for the City of Malibu, Los Angeles County, San Luis Obispo and other jurisdictions processing comprehensive LCP updates;
- New procedural guidance on issues that are topics of local, regional, and statewide concern as identified in this Assessment and in past ReCAPs;

- Cumulative assessment analysis, recommendations, and procedural guidance on emerging and evolving coastal management issues; and,
- Periodic Review/evaluation of a region's coastal management of the cumulative impacts of development and recommendations for updating the region's certified LCPs.

### **ReCAP Implementation**

The first proposed program change would occur through the implementation of the recommendations made by the regional cumulative assessment project (ReCAP) in the Malibu/Santa Monica Mountains area. By implementing the program changes, the Coastal Commission will benefit from having additional model LUP policies and implementing ordinances. Implementing the ReCAP recommendations of past project areas is the most effective way to achieve the high-priority program enhancements relating to special area management plans.

### **New Procedural Guidance**

The second proposed program change would involve new or updated procedural guidance on issues that are topics of local, regional and statewide concern as identified in this Assessment and in past ReCAP studies. The past three ReCAP studies have recommended program changes. The updated guidance would provide for a comprehensive review of these program areas rather than dealing such issues on a case-by-case basis in isolation.

### **Addressing Statewide Issues**

The third set of changes to the CCMP proposed by the Coastal Commission would come about through cumulative assessment analyses, recommendations, and procedural guidance on topics of statewide concern. The Commission's program needs cumulative assessment analyses to address emerging and evolving coastal management issues. The analyses would result in improved statewide management of these important areas.

### **Cumulative Assessment of a High-Priority Region**

The fourth set of proposed program changes would occur by evaluating another region's coastal management efforts since the effective certification of the applicable LCPs. Conducting a ReCAP analysis—or periodic review—in a high-priority region will give rise to suggestions for LCP policies and implementing ordinances. A review could result in enforceable policies, administrative decisions, and memoranda of agreement. A review could also result in new or revised coastal land acquisition, management, and restoration programs. Conducting a periodic review that evaluates the impacts of development on coastal resources and public access is a critical program change that will potentially address all of the Coastal Commission's high priority programmatic enhancement areas.

**CALIFORNIA COASTAL COMMISSION**

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400

**DRAFT FOR PUBLIC REVIEW AND COMMENT**

**UPDATED ASSESSMENT OF THE CALIFORNIA COASTAL MANAGEMENT PROGRAM**

**Performed Under Section 309 of the Coastal Zone Management Act  
Coastal Zone Enhancement Grants Program**

**March 2001**

This is an update to the 1997 Assessment of the California Coastal Management Program (CCMP). It provides a description and assessment of coastal resources and program needs in nine enhancement areas, according to the July 2000 Guidance provided by the federal Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration. The Assessment includes achievements made under the current Section 309 grant and will serve as the basis for the Coastal Commission's strategy to address priority program needs in one or more enhancement areas during the next five-year federal grant cycle.

The staff report, dated March 2, 2001, summarizing the draft Assessment and Strategy, is also available. Please send comments to Rebecca Roth, Federal Programs Manager at the Coastal Commission's Headquarters office or at [rroth@coastal.ca.gov](mailto:rroth@coastal.ca.gov).



## **PREFACE**

*California's burgeoning population has created extraordinary development pressures along the state's scenic coastline. With nearly \$3.3 million in funding from the Enhancement Grants Program, the California Coastal Commission has greatly enhanced its ability to analyze and manage coastal resources during the last eight years. Coastal Commission studies funded by Enhancement Grants have documented:*

- *An insufficient number of locations where the public can get to the coast from Highway 1;*
- *Seawalls blocking sandy and cobble beach areas that could be used by the public;*
- *Harm to coastal wildlife and vegetation caused by development along the coast;*
- *Polluted runoff resulting in beach closures and damage to marine life;*
- *A degradation of water quality and the health of the wildlife and vegetation of coastal streams and wetlands;*
- *Continued threats to the remaining 9% of California's wetlands by development encroachments; and,*
- *Inadequate roads and insufficient water supply to serve planned development and serve California's coastal visitors.*

*The Enhancement Grants Program has been an important asset to coastal management in California, providing crucial funding for not only identifying these concerns, but also developing solutions. The Commission remains dedicated to our mission of protecting the coast. This Assessment and Strategy has allowed the Commission to reflect upon its accomplishments, identify the state's coastal management needs, and create a plan to address those needs.*



## **INTRODUCTION**

This updated Assessment and Strategy reviews progress made from 1997 through 2001 in achieving the coastal zone “enhancement objectives” of Section 309 of the Coastal Zone Management Act (CZMA) of 1972, as amended in 1990 and 1996. It also assesses the current ability of the California Coastal Management Program (CCMP) to continue to make improvements in the specified enhancement areas. Activities of the California Coastal Commission’s (herein referred to as the “Coastal Commission,” “the Commission,” or “the CCC”) coastal management program, the Pacific Coast portion of the CCMP, is described in this report. The Bay Conservation and Development Commission (BCDC), which administers CCMP activities within San Francisco Bay, has its own Assessment and Strategy document which is also being updated this year. Both the Coastal Commission and BCDC consider activities that have been and could be conducted by the State Coastal Conservancy in their respective updates.

<p>ASSESSMENT 2001 High Priority Areas for Program Improvements: 1) cumulative and secondary impacts; 2) special area management planning; 3) wetlands; 4) coastal hazards; and, 5) public access</p>
---

Section 309 of the Coastal Zone Management Act, as amended, established a grant program to encourage states to improve their coastal management programs in nine enhancement areas: wetlands, coastal hazards, public access, marine debris, cumulative and secondary impacts, special area management planning, ocean resources, energy and governmental facility siting, and aquaculture. Within each of these areas, states are required to update their last assessment of coastal resources and to document the coastal management program’s ability to manage those resources. Additionally, the assessment identifies major gaps that the State program faces in addressing the programmatic goal of each enhancement area. (*See Section entitled Enhancement Area Analysis*). As documented in the 2001 update of the Enhancement Area Analysis, the Coastal Commission has identified cumulative and secondary impacts, special area management planning, wetlands, coastal hazards, and public access as high priority areas for program improvements.

The Coastal Commission continues to carry out a work program funded under an enhancement program Assessment and Strategy adopted in 1992 and updated in 1997. To qualify for Federal CZMA funds under the enhancement grant program for FY 2001-FY 2005, the Coastal Commission must update its approved Assessment and complete a revised five-year Strategy that addresses priority areas where the program can be enhanced.

The Assessment and Strategy is organized according to guidelines provided by the National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management (OCRM). The Assessment section begins by summarizing work performed to enhance the coastal management program since the 1997 Assessment and Strategy. Next, the Enhancement Area Analysis documents the status of the Coastal Commission’s program relative to each enhancement area, discusses program needs, and establishes a priority (high, medium or low) for improvement of that area of the program.

This document not only provides an accounting of the program achievements made since the 1997, but it also gives the public an opportunity to comment on future needs of the state coastal program. The 2001 Assessment will be the basis for targeting priority improvements to the CCMP in the future.



**Background**  
**Section 309 Enhancement Program**

The original strategy for enhancing the Coastal Commission's program was adopted in 1992. At that time, three areas were identified as high priorities for improving the program: wetlands resources, coastal hazards and cumulative and secondary impacts of development. The Coastal Commission's 1997 program added public access to this list of high priority areas where the Coastal Commission's program could be enhanced.

Based on the assessment analysis of each of the enhancement areas, the Coastal Commission adopted a strategy that focused on strengthening the program's ability to deal with regional cumulative impacts to resources and public access that result from development approved under the coastal management program. The cumulative impacts strategy primarily focuses on the Commission's mandate to review implementation of the California Coastal Management Program by Local Coastal Programs (LCPs). The cumulative impacts strategy reviewed LCP and Coastal Act policies combined with past permit development actions in the following issue areas: cumulative impacts of development; wetland protection; coastal hazards and public access.

Completion of these regional reviews has repeatedly documented areas where the Commission's regulatory, technical assistance, and interagency coordination should be improved to prevent adverse cumulative impacts in the coastal zone. Likewise, the regional cumulative impact reviews have been the catalyst for statutory changes to Local Coastal Programs (LCPs). Specific projects relating to the priority enhancement issue areas (cumulative impacts of development; wetland protection; coastal hazards and public access) have also been completed and have enhanced the Coastal Commission's and local government's regulatory and planning activities.

**PROGRAM ENHANCEMENTS 1997-2000**

In 1997, the Coastal Commission identified the following areas were identified as high priority needs for program enhancements and changes: cumulative impacts of development; wetland protection; coastal hazards and public access.

Below are descriptions of significant program changes and improvements that have occurred in the past four years, many of which overlap among the four priority enhancement areas. Major accomplishments under the Section 309 program in the last four years include the following program changes and improvements:

- *new and revised authorities, including enforceable policies, administrative decisions, executive procedural orders and memorandum of agreement/understanding;*
- *new and revised Local Coastal Program policies and implementing ordinances;*
- *new and revised geographic information systems;*
- *new and revised guidelines, procedures and policy documents that provide specific interpretation of enforceable CCMP policies to applicants, local government and other agencies that result in meaningful improvements in coastal resource management.*

**Cumulative Impacts, Coastal Hazards, Public Access & Wetlands**

Los Angeles County, Santa Monica Mountains (SMM) LUP. Commission staff made twenty recommendations to the county based on the findings of the SMM/Malibu Area Regional Cumulative Assessment Project (ReCAP). The County of Los Angeles is currently working on



completing their LCP with regard to concentration of development, public access, and shoreline hazards. The Commission staff are working with the County to develop an LCP for submittal which incorporates the Commission's recommendations. The ReCAP project included analysis of impacts to coastal resources and guidance to Coastal Commission and local government staff regarding policy review of relevant LCP and CCC policies and procedures. The ReCAP report contained recommendations and guidance. The project involved reviewing policies pertaining to the problems identified and analyzing implementation of policies to address problems.

City of Malibu LUP. Staff made 21 recommendations to the City of Malibu. Recent legislation directed the Commission to complete the LCP for the City of Malibu. This process, scheduled for completion by January 2002, will provide the Commission with the ability to carry out the recommendations made through the ReCap review. The ReCAP project included analysis of impacts to coastal resources and guidance to Coastal Commission and local government staff regarding necessary changes to LCP and Coastal Commission policies and procedures. Similar to Los Angeles County, policy recommendations and guidance were provided to the Coastal Commission staff and the City of Malibu at the completion of the study. Policies were reviewed pertaining to the problems identified, the implementation of policies was analyzed, and the ReCAP report developed recommendations and guidance to address problems.

#### **Enhancement Activities Implementation**

As a result of the Enhancement Program, staff has developed and the Executive Director has issued revised policies and procedural guidance. The Commission needs now to focus on ensuring that the measures are implemented in day-to-day permitting and planning. Implementation will occur through local coastal planning by use of one or more of the following tools: completion of local coastal programs (LCPs), updates to existing LCPs; procedural guidance documents for Coastal Commission and local government staffs; and, ongoing staff training to promote continuing use of and regional periodic reviews (ReCAPs) and education of statewide trends.

Implementation of Program Changes from the Monterey Bay Region ReCAP. Based on an implementation strategy that resulted from the previous ReCAP in the Monterey Bay area, program changes were implemented. This was accomplished through a range of permits and LCP amendments by the CCC and local governments.

Coastal Development Permits. Commission permit actions implemented a variety of program changes identified in the ReCAP recommendations, including recommendations on shoreline development structure setbacks, public access offers to dedicate, maintaining wildlife corridors, and transfer of development credits to minimize impacts on coastal resources as a result of area build-out.

Updates to the Procedural Guidance for Conducting Regional Periodic Reviews. In 1998, updates were made to the estimates of required staff time and resources to complete regional cumulative assessments. In these revisions, staff described specific work tasks in greater detail. .

Completion of Statewide Strategy for Addressing Nonpoint Source Control. In 2000, the Commission and State Water Resources Control Board completed a statewide strategy for addressing nonpoint source pollution entitled the *Plan for California's Nonpoint Source Pollution Control Program* (January 2000). This plan was approved by the USEPA and NOAA last year and the approved program brings the combined authority of over twenty state agencies to bear on the





issue of nonpoint source pollution and has the goal of implementing at least 61 management measures for six different land use categories by 2013.

Procedural Guidance Manual: Addressing Polluted Runoff in the California Coastal Zone. In 2000, the Commission updated the procedural and technical guidance for incorporating polluted runoff control measures in planning processes and coastal permits. Efforts included (1) the training of all District and Headquarters planning staff in the use of the Procedural Guidance Manual; (2) forming a water quality task force consisting of a Water Quality Coordinator in each District office to be the lead person on issues relating to polluted runoff; and (3) more consistent incorporation of best management practices (BMPs) into staff reports and special conditions (e.g., BMPs that are equivalent to those recommended by the U.S. EPA pursuant to CZARA Section 6217). The update included significant enhancement to LCP ordinances and policies relating to erosion, sedimentation, and septic tanks. Additionally, a systematic method for reviewing local ordinances, policies, and LCPs was created.

### **Cumulative Impacts**

Procedural guidance revising the Commission's transfer of development credit program (TDC) program in the Santa Monica Mountains. As a result of recommendations in the Santa Monica Mountains/Malibu Area ReCAP, staff developed guidance for improving implementation of the TDC program to better address cumulative impacts. Los Angeles County Santa Monica Mountains LCP segment. This guidance has statewide applicability for jurisdictions developing lot retirement programs.

ReCAP Regional GIS. As a result of the ReCAP project in the Santa Monica Mountains/Malibu area, a database containing twenty years of Coastal Commission permits in the project area was developed and included several data layers to spatially analyze the implementation of various Coastal Act and Malibu/Santa Monica Mountains Land Use Plan policies (L. A. County and City of Malibu). The data sets include, for example, the location of shoreline armoring, public access opportunities, the location of new residential development and new subdivisions approved by the Commission and the location of lots where development potential was retired through the Transfer of Development Credit Program (TDC). This database is maintained in a regional database which is used to provide technical assistance to the local governments and to permit applicants, as well as to assist local and Commission staff in the analysis of cumulative impacts in permits and LCP completion.

### **Coastal Hazards**

Procedural Guidance Document on Permit Conditions for Beach Nourishment and Shoreline Protective Devices and on Monitoring of Beach Nourishment and Shoreline Protective Devices. In 1999, the Commission staff prepared and issued a final guidance document on Beach Erosion and Response. This guidance document will help staff address the continued loss of public beach from shoreline protection, provide a greater awareness of both shoreline problems and options to mitigate cumulative effects to the shoreline from armoring, and encourage staff to investigate alternatives to shoreline protection which eliminate or minimize impacts to local shoreline sand supply.



Ventura County LCP. Seven recommendations of the SMM/Malibu Area ReCAP were made to the Ventura County certified LCP with regard to public access and shoreline hazards. The Coastal Commission will need to work with the County to make changes to the LCP, policies and ordinances.

### **Public Access**

Access Program. The Commission improved information management and monitoring of Offers to Dedicate (OTD) public access statewide; this process led directly to an improved effort to implement a local government and nonprofit outreach program. Part of the outreach efforts involved developing and implementing a strategy to increase acceptances of dedication offers. Specifically, a GIS-based Accessway Information System was completed for all 15 coastal counties. In addition, a model set of maps identifying existing and potential public access opportunities were completed. Digital base maps suitable for depicting coastal access information were completed for "Offers to Dedicate" public access (OTD's) located in the Malibu area of Los Angeles County. Through the 1998-99 local assistance grant funds, 29 OTDs in have been accepted. In 1998, new legislation to increase liability protection for public accessways and \$25,000 in annual funds for operation and maintenance of accessways was passed in the California legislature.

Electronic Coastal Access Guide. In 1999, the Coastal Commission digitized its Access Guide. This project involved capturing and integrating electronic text files from previous publications of the guide. Information pertaining to all 15 coastal counties was converted into "html" format. This represents 110 "pages" of text files.

---

## **ENHANCEMENT AREA ANALYSIS**

---

The 2001 revised assessment will build on the 1997 Assessment for purposes of identifying where program enhancements should occur. Similar to 1997, NOAA's Office of Ocean and Resources Management (OCRM) has identified the purposes of the assessment. As stated by OCRM, they are as follows:

1. Identifying changes that have taken place within each of the nine Section 309 enhancement areas, including problems that have been addressed, new issues that have arisen, and changes in the status of the resources (see previous section *Program Enhancements 1997-2000*);
2. Describing the nature of problems, changes in the status of resources, or new issues, including the extent to which they are being addressed and their relative importance;
3. Providing the basis for determining the priority needs for improvement of state and territorial coastal management programs; and,
4. Providing the public with an opportunity to learn more about accomplishments under section 309 and to comment on the state's or territory's identification and justification of current priority needs, as well as the possible means that the state or territory is considering to address the identified needs.

Even though there have also been significant improvements and accomplishments that have increased and improved the Coastal Commission's coastal management program, many of the needs identified in the 1997 Assessment remain relevant today.



**Note to Reader: the Section 309 programmatic objectives are shown in italics as stated in Section 309 of the Coastal Zone Management Act (CZMA).**

---

## CUMULATIVE IMPACTS

---

### **Section 309 Programmatic Objectives**

- I. Develop, revise or enhance procedures or policies to provide cumulative and secondary impact controls.*

### **Resource Characterization**

California continues to evidence significant population growth like that experienced in recent decades. Forecasters predict that the population will likely continue to balloon well into the future. New estimates from the state Department of Finance indicate that by 2010, the population in California will grow by more than 5 million people, reaching 39 million. By 2040, forecasters expect the state's population to hit 60 million. Coinciding with the increased population is an increase in urbanization and other development pressures on resources.

Much of the California coast has sensitive areas susceptible to cumulative impacts. The CCMP identifies the following as sensitive habitats: dunes, wetlands (including salt and freshwater marshes and associated vegetation), riparian vegetation, tidepools, redwood and other forests, coastal scrub and sage, and grasslands. As growth in California continues, these resources are more prone to adverse impacts, especially in areas where resources have been seriously degraded in the past. Examples of cumulative impacts identified through Regional Cumulative Assessment Projects (ReCAP) and other Enhancement projects include:

- loss of public access opportunities through incremental armoring of the coast;
- hardening of wetland edges;
- impacts to wetland hydrology and water quality;
- cumulative impacts to public access through increases in use;
- impacts to sensitive resources through increased use near access areas;
- drainage of polluted runoff into coastal waterways; and,
- adequate service (roads, water, etc.) capacity to serve planned development.

### **Management Characterization**

The Coastal Act specifically requires review of cumulative impacts; this concern over cumulative impacts is also implicit in many specific policies in the Coastal Act and Local Coastal Programs (LCPs). Generally, the CCMP controls cumulative impacts through the implementation of statewide resource protection policies at the local decision-making level, specifically through a local government's LCP. However, LCPs are frequently amended; these amendments are often initiated for a particular development project, and not for a programmatic change or policy modification. Project-driven amendments, which often seek to allow development projects that may not otherwise be permissible by the certified LCP, may result in cumulative impacts to resources. Many LCPs are aging, and, again, without a programmatic review of their performance and incorporation of new, updated information these LCPs are not likely to effectively address cumulative impacts. Moreover, as the state's increasing population creates more development pressures, the Commission takes more regulatory actions on amendments and appeals.



1. *Changes since the 1997 Assessment.*

Since the last Assessment and Strategy, the Commission has significantly improved its ability to manage cumulative impacts with the following measures. These measures, include:

- a) **Monterey ReCAP.** A number of program changes were implemented through CCC permits and LCP Amendment reviews and education and intergovernmental coordination efforts (outlined in December 1998 report).
- b) **Managing cumulative impacts in the Santa Monica Mountains (SMM)/Malibu area.** Through the ReCAP program, the Commission assessed the cumulative impacts to public access and environmentally-sensitive habitats in the SMM/Malibu area. In addition, the study provided analyses of the effects of shoreline armoring and an overview of the concentration and location of development in the study area. Based on the findings of the SMM/Malibu Area ReCAP project, Commission staff developed and began implementing recommendations to improve the management of cumulative impacts to the area through coastal development permits. Because of ReCAP, Commission staff and local planners in the SMM/Malibu area have access to better information, including data from a geographic information system (GIS) that helps in the review of current and future development proposals. This information also helps with the management of cumulative impacts. For example, the data from the ReCAP is being used as Commission staff work with L.A. County to update its Land Use Plan (LUP). Additionally, staff is implementing ReCAP recommendations as it writes the LCP for the City of Malibu, as mandated by the state legislature in 2000 (AB988). It is anticipated that numerous ReCAP recommendations will be incorporated into the City of Malibu and L. A. County LCPs, which will help minimize the cumulative impacts identified through the ReCAP analysis. The review also identified numerous offers-to-dedicate (OTDs) scenic and conservation easements in the Santa Monica Mountains that were due to expire. The ReCAP developed an initial strategy with regional agencies to avoid loss of easements and mitigation. This resulted in agency attention being focused on the problems relating to non-access OTDs, which were required by the CCC to mitigate for development. These OTDs have not yet been accepted and this has been identified as a statewide issue and program need that will be addressed through the strategy. Revised Guidance for Implementation of the Transfer-of-Development Credit (TDC) program was completed to carry out recommendation of the ReCAP report.
- b) **Assessing cumulative impacts in San Luis Obispo County.** During the assessment period, Commission staff completed a draft study of cumulative impacts in San Luis Obispo (SLO) County using the ReCAP framework. The ReCAP team analyzed 11 issue areas identified at public workshops held in SLO County: public access, environmentally-sensitive habitats, agricultural land, scenic resources, industrial and energy development, water quality, new development, fishing and boating, shoreline hazards, archaeological resources and LCP procedures. Working with SLO County, the ReCAP team created a permit database and accompanying GIS to develop an overview of cumulative and secondary impacts that have occurred since 1988. The draft report, based on analysis of the data and maps, suggests alternatives that may strengthen the LCP to respond to ongoing and new coastal resource management challenges in the county.
- c) **Encouraging and participating in LCP updates.** Financial and legislative options were pursued to improve management of cumulative impacts. The Commission successfully secured funding from the legislature to fund LCP planning grants from 1997 to 2000. The Commission subsequently conditioned many of the grants to address cumulative impacts to public access and water quality. Several grants were conditioned to develop strategies to accept outstanding public access OTDs and to update water quality policies. As a result, 29 outstanding public



access OTDs were accepted by local governments with grant conditions and staff anticipates that hundreds more will be accepted as set forth by the local assistance grant conditions. Additionally, the Commission has increased the number of staff working on LCPs. Funding was secured for two additional staff positions in its baseline budget for work on periodic reviews and one staff member to work on the L. A. County LCP. Legislative recommendations were made to the Legislative budget committees to implement the periodic reviews statewide in order to improve management of cumulative impacts (January 7, 2000, and January 10, 2001, Coastal Commission Legislative Reports analyzing the 2000/2001 and 2001/2002 budget bills). The CCC coordinated on draft legislation—AB 640 (Jackson)—which focuses on measures to implement improvements to Section 30519.5 of the Coastal Act.

- d) **Improved technical assistance to local governments.** The Commission reinstated its Local Assistance Program to provide statewide support to local governments throughout the coastal zone. Through the Local Assistance Program, the Commission distributes a periodic newsletter with updates about issues and trends in coastal management, legislation concerning coastal issues, legal decisions, public education opportunities, and grant programs.
- e) **Improved technical assistance to Coastal Commission staff members.** The Commission has also increased its technical staff to include a geologist, a biologist, an ecologist, and two analysts who will participate in the development of Natural Community Conservation Plans. The new staff will help the Commission and local governments address some of the technical issues of coastal management. These positions have, to a certain extent, begun to improve the link between science and policy and have helped to guide permit decisions based on science. Linking policy decisions to science should help address secondary and cumulative impacts on the environment
- f) **Cumulative Impacts Analysis Tools: Databases and GIS.** Several tools were developed by the Commission through the Santa Monica Mountains/Malibu Area ReCAP and the San Luis Obispo County Periodic LCP Review. Databases of permit actions by the Commission and local government were developed in both areas; base maps of parcels were developed in both areas to facilitate spatial analysis of cumulative impacts using a Geographical Information System (GIS). These tools will allow the district analysts to do more comprehensive spatial analysis of cumulative permit actions that will inform their permit and LCP Amendment reviews. However, as GIS use expands, it raises new issues of data sharing and maintenance of data sets. This is a program need addressed in the Strategy. Improvements to the Statewide Permit Tracking System (PTS). The PTS was developed and implemented through previous §309 program improvements. Since 1997, improvements were programmed in the system to, which allow for the tracking of development types and issues to facilitate future cumulative analysis. Historical permit data has been collected to facilitate cumulative impact analysis in both the Santa Monica Mountains/Malibu area and San Luis Obispo County.
- g) **Procedural guidance documents and taskforces.** As noted in other sections of this report, Commission staff has published several guidance documents to help Commission staff and local government planners manage cumulative impacts. For example, the Commission published the Beach Erosion and Response (BEAR) document, which addresses the long-term impacts of shoreline protective devices and provides procedures for addressing the cumulative impacts of structures on sand supply and natural processes. A Commission staff taskforce on shoreline hazards, called the Beach Erosion and Coastal Hazards Taskforce (BEACH), is continually working to improve techniques to address shoreline erosion and coastal hazards through the Commission's regulatory actions. There are also new staff taskforces on water quality, wetlands, and environmentally sensitive habitats.



## **Conclusion**

### **PRIORITY NEEDS**

- Commission staff should continue to implement policies derived from the specific recommendations of the two completed ReCAP analyses through permits and LCP amendments. The implementation measurements will not only improve LCP policies and implementation ordinances in the ReCAP study areas, but can also lead to improved policies and ordinances throughout the coastal zone.
- The Commission must continue to use the ReCAP review framework to improve management of cumulative impacts in all areas of the coast. Application of the ReCAP framework will continue to improve the coastal program through a variety of mechanisms, including recommended changes to LCPs and recommended improvements to information management and monitoring in all areas of the coast. In addition to the regional approach, analyzing the cumulative impacts in the context of a statewide priority enhancement areas, such as ESHAs, wetlands, water quality or public access, is another way that the Commission could apply the ReCAP framework to improve management of coastal resources.
- Although the Commission has added two staff members to assist in addressing cumulative impacts, staffing levels remain inadequate to address both ongoing permit review and cumulative impacts. The Commission should continue to seek Legislative support for funding to staff to work on periodic reviews and post-certification monitoring.
- The Commission should continue its efforts to provide incentives for local governments to update and amend their LCPs, as the Commission is still unable to require such changes; under the CCMP, a local government assumes responsibility for implementing the Coastal Act after certification of its LCP.
- Lack of funding to assist local governments in local coastal planning is a significant impediment. The Commission should continue to seek ways to increase funding to local governments. In addition, methods are needed to update local LUP maps and to assist local governments in comprehensively evaluating the cumulative effects of LUP amendments.
- Continued improvements to the permit tracking database would improve the ability of Commission staff to use the data in analyzing cumulative impacts. One improvement would be to add mechanisms to the database to monitor conditions required on specific permits approved by the Commission.
- Expanding the Commission's GIS capability would greatly enhance the agency's ability to undertake cumulative impact analysis on both a regional and a statewide basis. A more comprehensive GIS could provide important information to both Commission staff and to local governments in reviewing and analyzing policies, ordinances, and permits. Commission staff should also be trained to use the GIS in their analyses.
- The Commission needs to link coastal program improvements to the increasing number of watershed planning and efforts within regions of the state outside the coastal zone.
- Long term research and monitoring in cooperation with scientists and academic researchers is needed to better understand the actual status of critical coastal resources. Therefore, the Commission should strive to improve links between science and policy makers. The link will help the Commission base its permitting decisions on a stronger scientific foundation. At the same time, the link would improve management of the cumulative impacts of coastal



development and growth in priority enhancement areas of access, wetlands, and hazards management.

**2. Priority:**

Last Assessment

This Assessment

**High X**

**High X**

Under the 1997 Assessment, cumulative impacts was identified as a high priority; the Commission continues to believe that addressing cumulative impacts remains a high priority as continued growth into the next century is expected. This growth will add pressure to develop in the coastal zone. Ongoing improvements in managing cumulative impacts will improve the Commission's and local governments' ability to meet the objectives of the CCMP. Application of the regional review methodology developed under ReCAP is a high priority to address management of cumulative and secondary impacts.

---

**SPECIAL AREA MANAGEMENT PLANNING**

---

**Section 309 Programmatic Objectives**

- i. *CZMA section 309(a)(6) provides for coastal states to prepare and implement special area management plans for important coastal areas.*

**Resource Characterization**

As established in the 1992 Final Assessment and the 1997 update, local coastal programs are considered the equivalent of the CZMA Section 309(a)(6) definition of *special area management plans for important coastal areas*. The Coastal Act allows for any local government lying in whole or in part in the coastal zone to prepare an LCP for that portion of the coastal zone within its jurisdiction. In addition, the Commission continues to review and maintain special area management plans for the four industrial ports, for two universities, and reviews public works planning for special districts, including important State Park units, and plans for the siting of energy facilities.

**Local Coastal Programs**

Local coastal programs consist of detailed land use plans and specific implementing actions to accommodate new development while protecting sensitive resources and providing for and protecting public access (Ports and Universities also have coastal programs that are identified as port plans, public works plans and long range development plans). Moreover, LCPs are considered the primary vehicle for statutorily securing the adherence and furtherance of community and regional coastal resource and public access planning efforts. There are 73 coastal jurisdictions. Because Section 30511(c) of the Coastal Act allows jurisdictions to submit their LCPs in separate geographic units, there are currently 125 geographic LCP segments that are have plans that have been certified by the Coastal Commission. As discussed in the cumulative impact section, the Coastal Act requires that the Commission review the implementation of certified LCPs every five years in order to determine whether the LCP is being effectively implemented in conformity with the policies of the Coastal Act. In enacting this mandate, the Legislature recognized the importance of ongoing monitoring, evaluation and update of LCPs in order to provide effective coastal management.



To date the Commission has completed only a few LCP reviews<sup>1</sup> and roughly 50 LCP reviews are overdue, some by more than 10 years. Approximately seven jurisdictions have on their own initiative, completed comprehensive updates to their LCPs. In these instances the LCPs have been amended to include revised and new policies and ordinances. Yet, significant statutory, land use, and population changes have occurred in the coastal zone. LCPs that contain out of date policies and standards for managing sensitive coastal resources become far less effective in guiding sound coastal management and threaten the continued protection of fragile coastal land and water areas. Restricted staffing levels has prohibited the Coastal Commission from participating in task force meetings, and from providing technical and general assistance to local governments with these updates.

Additionally, approximately 37 jurisdictions and segments of jurisdictions remain uncertified and there are 46 geographic areas where issues pertaining to a specific geographic area remain unresolved and the Commission retains coastal development permit authority (referred to as ADCs, Areas of Deferred Jurisdiction). As with LCP updates, assisting local governments in completing their LCPs and ADCs has been extremely difficult due to the lack of Coastal Commission staff and limited technical and financial assistance.

### **Regional Special Area Management Plans**

In addition to LCPs, there are a number of local and regional planning efforts that impact coastal development plans and permits involving various special area management plans. Staff involvement has been limited because: 1) the scope and scale of many of these plans are large and, 2) participation on these work groups is labor intensive. Where special area management plans have been developed in the coastal zone as a result of cooperative efforts by the Coastal Commission staff, local governments and other federal, regional and state entities, the result has been that the resource protection plans reflect the LCP policies and ordinances of the jurisdiction and the various other special area management plans are likely to be amended into the LCP.

The examples of such management programs include the national marine sanctuaries, research reserve systems and the inclusion of critical estuaries into the National Estuary Program. Other primary examples include the development of specific plans for identified resource areas, lagoon enhancement plans, specification of priority and resource-dependent uses within sensitive resource areas, restoration/mitigation plans for disturbed wetlands, habitat conservation plans, sensitive resource overlays, flood control/stream management programs. However, as stated previously, only a small majority of these plans have been incorporated into the certified local coastal programs. Because single-issue SAMPs are not being incorporated into the LCPs, there is misinformation regarding development standards and allowable uses of land. This also creates problems relating to enforceability of the special area management plan because if they are not incorporated in the LCP, they are not the legal standard of development review and they have not been subject to the level of public review required by the Coastal Act. Additionally, these types of planning documents do not represent a comprehensive plan for coastal protection because they neglect to provide a complete context for the area's plan to manage resources and public access in the coastal zone.

Reviews of eight SAMPs have occurred through federal consistency. These included the Morro Bay National Estuary Program Comprehensive Conservation Management Plan, the Redwood National Park General Management Plan, the Santa Rosa Creek Riparian Restoration Plan, the Tule Elk Management Plan in the King Range National Conservation Area, the Slide Ranch Master

---

<sup>1</sup> City of Trinidad; City of Sand City; San Luis Obispo County in progress





Plan, and the conceptual plan for restoration of Bolsa Chica wetlands. However, in many of these efforts, staff did not participate in the plan creation and the majority of the above listed special area management plans have not been incorporated into the existing certified LCPs.

### **Critical Coastal Areas**

The Coastal Commission is currently working with a number of other state agencies to develop and implement the Critical Coastal Area program, a component of California's Nonpoint Source Pollution Control Program. These agencies include: State Water Resources Control Board and several Regional Water Quality Control Boards, Department of Fish and Game, Parks and Recreation, State Lands Commission, Coastal Conservancy, Department of Transportation, and others. This program coordinates actions by multiple agencies to implement land-based management measures to control nonpoint source pollution affecting coastal waters. A working group, comprised of the agencies listed above, is currently developing criteria for the identification of Critical Coastal Areas, a method for prioritizing these areas for action once identified, and a general process for developing management plans to address the water quality problems affecting each critical coastal area.

The Coastal Commission anticipates that the development of these individual Critical Coastal Area management plans will include local agencies and stakeholders, and that the successful implementation will require coordination and cooperation with local governments and the Coastal Commission. A strategic plan is currently being drafted to articulate the goals, priorities and activities of the program. While as many as 70 or 80 Critical Coastal Areas may be identified along the California coast over the next several years, limited resources will likely result in the working group implementing management measures at only a few critical areas each year. Coastal Commission staff participation in this planning effort is important in order to assure that Critical Coastal Areas are identified in the local government's coastal program along with the land use development and resource policies to improve and protect these water bodies are included in LCPs.

### **Marine Protected Areas**

As discussed later, in the Ocean Resources section of this Assessment, the Coastal Commission has participated in several important efforts related to marine protected areas in recent years. Commission staff participated in a State Interagency Marine Managed Area (MMA) Workgroup that in January 2000 issued its report, "California's State Classification System for Marine Managed Areas." In 2000, the Marine Managed Areas Improvement Act was passed, which mandates the replacement of existing management classifications for marine and estuarine 'managed areas' into six consolidated classifications. Coastal Commission staff anticipates continued participation in this effort as establishment of these classifications should be incorporated into existing LCPs where applicable.

### **Habitat Conservation Planning**

Another regional planning effort that must be included in special area management plans is the habitat conservation plans (HCPs) and natural community conservation plans (NCCPs). Currently, there are 12 HCPs and ten NCCPs that are being developed in coastal counties and coastal watersheds of California and are nearing completion. These plans are developed by multiple federal, state, local government, environmental and developer stake holders and, in most cases, represent years of meetings and work by all the interested parties. Habitat conservation plans (the plans are also referred to as NCCPs, Habitat Management Plans, Multi Species Conservation Plans and Multi Habitat Conservation Plans) must be adopted before a developer can apply for an incidental take permit that would allow for the take of endangered or threatened species as identified by the federal and state



Endangered Species Act. These plans must not contradict either the habitat and resource protection policies of the Coastal Act or the area's certified LCP. The scale of these plans geographically exceeds the coastal zone boundary. However, in order for these plans to be enforceable in the coastal zone, development proposals must conform to the area's statutory policies (where there is a certified LCP, the LCP Land Use Plan policies are the legal standard of review). Therefore, similar to other special plans, it is important that they are included and amended into local governments' coastal programs. To date only one jurisdiction has included the habitat conservation plan as part of their LCP (Encinitas) and four coastal development permits involving a habitat conservation plan have been approved by the Coastal Commission. Consideration of the habitat planning efforts as part of the LCPs is critical for two reasons: 1) these habitat plans are the only way in which the take of habitat or of threatened and endangered species can occur; and, 2) the habitat plans allow for the take of habitat and species that could adversely affect coastal zone resources.

### **Management Characterization**

#### *1. Changes since the 1997 Assessment:*

As discussed above, the principal arena for special area management planning is the Local Coastal Program process. During the period between September 1996 and December 2000, the Commission certified three new Land Use Plans and three new Implementation Plans. In addition, six new LCP areas became fully certified and are issuing coastal development permits. During this period the Commission reviewed and acted on a total of 275 LCP amendments as well as eight Long Range Development Plan amendments, three Public Works Plan amendments, and 25 Port Master Plan amendments. Additionally, the Commission has formally acted on some special area plans (such as wetland management plans) through its regulatory process and has informally participated in a number of other area planning programs cooperatively with other agencies.

*Since 1997, there have been the following three changes in the state's SAMP program.*

- To encourage the enhancement of LCPs throughout the state, the Commission created a new LCP grant program in 1997. The Commission has awarded nearly \$1.6 million during a four-year period, providing funds to local governments working on LCPs. Two of the grant awards have helped to fund comprehensive periodic reviews of LCPs—one in the Malibu and Santa Monica Mountains area, and one in San Luis Obispo County.
- In December 2000, the Coastal Commission secured two new staff members to assist permit and LCP analysts and to participate in habitat conservation planning efforts.
- Two state laws were also passed related to reclassification of Marine Managed Areas. The Marine Life Protection Act, which passed in October 1999, directs the Fish and Game Commission to streamline and consolidate MPAs and 'marine life reserves' statewide, improve management and enforcement through development of a 'master plan,' and assess alternative sites. The second law involved creating a 'Master Plan Team' to implement this law. Coastal Commission staff participate in these meetings.

### **Priority**

Under the 97 Assessment, Special Area Management Plans were identified as a low priority. The ReCAPs have identified the importance of having current LCPs that reflect all the jurisdiction's special area management plans.



Priorities:

<u>Last Assessment</u>	<u>This Assessment</u>
<b>Low X</b>	<b>High X</b>

There is a great need to update LCPs to reflect significant changes that have occurred in the coastal zone and to incorporate the multitude of special area management planning efforts that have been identified above. SAMPs are being developed and adopted to address different objectives; such efforts need to be melded into the more comprehensive LCP planning efforts.

Of the total number of LCPs that are overdue for their periodic update and review by the Coastal Commission, four of them (Santa Barbara, San Mateo, Mendocino and Monterey Counties) are a priority for the following reasons: they have a high level of post-certification permit and appeals activity; they contain critical coastal resource management issues; they are faced with high growth and development pressures; and, they have experienced a higher number of project-driven amendments.

The CCMP provides the necessary structure for developing and implementing special area management plans. To date, the Commission has relied on the Local Coastal Program process as a means to incorporate special area planning efforts. However, as regional periodic reviews continue to be conducted as a means to address cumulative impacts, it is a high priority for the Coastal Commission to assist local governments in updating and amending their LCPs. Additionally, there is a large need for Coastal Commission staff to be more involved in special area management planning efforts. The program change that would enhance the CCMP while also ensuring the enforceability of the regional SAMPs is to have them approved and incorporated into the CCMP as local coastal program amendments.

---

## COASTAL HAZARDS

---

### **Section 309 Programmatic Objectives**

- I. *Direct future public and private development and redevelopment away from hazardous areas, including the high hazard areas delineated as FEMA V-zones and areas vulnerable to inundation from sea and Great Lakes level rise.*
- II. *Preserve and restore the protective functions of natural shorelines features such as beaches, dunes, and wetlands.*
- III. *Prevent or minimize threats to existing populations and property from both episodic and chronic coastal hazards.*

### **Coastal Hazards Characterization**

1. *General level of risk from the following coastal hazards:*

<b>Hazard</b>	<b>Risk</b>
Hurricane/Typhoons	<b>Low</b>
Flooding	<b>High</b>
Storm Surge	<b>Low</b>



Episodic Erosion	<b>High</b>
Chronic Erosion	<b>High</b>
Sea/Lake Level Rise	<b>Medium</b>
Subsidence	<b>Medium</b>
Earthquakes	<b>High</b>
Tsunamis	<b>Medium</b>

Chart provided by OCRM and determined by CCC

2. *Changes in the level of risk or state of knowledge since the 1997 assessment.*

The level of risk and state of knowledge about these hazards has not changed significantly since the last assessment; however, public awareness and concern about these hazards has increased greatly. Due to a series of natural disasters and several winters with intense storms, coastal residents now seem to have a heightened awareness of coastal hazards.

3. *Risks from inappropriate development.*

Significant amounts of public and private development are located adjacent to the shore and either are now or will soon be in danger from erosion. Many efforts to protect against erosion (e.g. shoreline armoring) also encroach upon public beach areas and adversely affect coastal resources. Unabated erosion can: affect roads and infrastructure, in some cases interrupting vital transportation routes; jeopardize life and private property; and reduce or eliminate many coastal recreational opportunities and coastal amenities. Such losses would have unimaginable private and public costs to replace or relocate essential facilities and to respond to erosion losses through insurance claims.

**Management Characterization**

1. *Changes to the State's hazards protection programs since the 1997 assessment.*

<b>Mechanism</b>	<b>Changes since last Assessment (level Significant/Moderate/None)</b>
Building restriction	<b><u>None</u></b>
Repair/rebuilding restrictions	<b><u>None</u></b>
Restrict "hard" shoreline protection structures	<b><u>None</u></b>
Restrict renovation of shoreline protection structures	<b><u>None</u></b>
Beach/dune protection	<b><u>None</u></b>
Permit compliance program	<b><u>None</u></b>
Inlet management plans	<b><u>None</u></b>



<b>Mechanism</b>	<b>Changes since last Assessment (level Significant/Moderate/None)</b>
SAMPs	<u><b>None</b></u>
Local hazards mitigation planning	<u><b>None</b></u>
Innovative procedures for dealing with takings	<u><b>None</b></u>
Methodologies for determining setbacks	<u><b>None</b></u>
Disclosure requirements	<u><b>None</b></u>
Publicly funded infrastructure restrictions	<u><b>None</b></u>
Other: Innovative programs to encourage beach nourishment; public awareness of hazards; increased staff training on shoreline erosion issues	<u><b>None</b></u>

Chart provided by OCRM and determined by CCC

## 2. Nature of Changes:

**Restrict “hard” shoreline protection structures; Beach/dune protection:** The Commission formed an in-house Beach Erosion and Response (BEAR) Task Force. This Task Force has met for several years and has produced a guidance document to help commission and local government staff in their review and analysis of proposals for shoreline protection devices. The Task Force, recently renamed BEACH for Beach Erosion and Coastal Hazards, continues to meet, providing an opportunity for staff to discuss statewide erosion concerns and to share approaches to beach and dune protection. It also provides each of the Coastal Commission’s area offices with in-house expertise in shoreline processes and coastal erosion as well as a team to help review all new shoreline protective projects, develop acceptable alternatives to conventional armoring and identify opportunities to encourage beach nourishment. Methods for improving mitigation measures for projects affecting sand supply have focused primarily on coastal development permit applications for shoreline protection and on review of amendments to Local Coastal Programs. Beach sand mitigation programs have now been implemented in northern San Diego County and portions of the central coast. In addition, a beach sand mitigation program is being developed for a project in Orange County that will address the reduction in sediment supply to the coast stemming from development in the coastal watershed.

**Procedural Guidance Documents and Commission Briefings:** The Commission staff prepared and issued a guidance document entitled Beach Erosion and Response (BEAR). This guidance document helps staff address the continued loss of public beach from shoreline protection by providing additional information on shoreline problems and options to mitigate cumulative effects to the shoreline from armoring, and encouraging staff to investigate alternatives to shoreline protection which eliminate or minimize impacts to local shoreline sand supply.

During and after the 1997/98 El Niño, Commission staff provided information on storm damage and various emergency development actions taken to respond to the winter storm events. Staff documented the actions taken throughout the state, enabling later follow-up to determine whether long-term actions are necessary. This documentation also assisted staff during follow-up meetings with local governments and property owners to either remove short-term protection development or



to identify information necessary for thorough review of a long-term development response through the regular permit process.

The Coastal Commission staff briefed the Commission on the effects of sea level rise on the California Coast. With better knowledge may come policies and procedures to plan for and better anticipate future changes to dynamic coastal processes.

Through a NOAA Coastal Fellowship, the Commission developed an ArcView program to provide information in support of decisions on beach nourishment and access. The program is called, "Identifying Potential Beach Nourishment Sites in California: A Decision-Support Tool and it contains general data for the state and site specific data for the San Pedro and Laguna Sub-Cells. The framework is now in place to update existing data as new studies become available and to extend detailed data statewide. A compact disc (CD) of this project was sent to the Coastal Services Center in October 2000.

The Resources Agency and the US Army Corps of Engineers have initiated a California Coastal Sediment Management Workgroup. Through commission staff's participation in these monthly meetings, staff is aware of and able to comment informally upon the various projects throughout the state that can affect coastal sediment. The overall mission of this group is "to facilitate regional approaches to protecting, enhancing and restoring California's coastal beaches and watersheds through federal, state and local cooperative efforts."

## **Conclusion**

1. *Significant impediments to meeting the 309 programmatic objectives:* The program needs identified include:

### Procedural and technical assistance:

- The Coastal Commission needs to develop, implement and continue a training program for local government and commission staff in order to improve management of coastal hazards.
- An on-going and maintained statewide inventory of the location, extent and cost of recent coastal damage resulting from storm events, earthquake activity, flooding, tsunami, erosion and bluff failure, resulting in criteria to designate areas as current and future high hazard areas would increase the scientific component in decision-making.
- Continue to enter and the revise data in a new tool, developed by a NOAA Coastal Services Fellow, called "Identifying Potential Beach Nourishment Sites in California: A Decision-Support Tool."
- Continued involvement in California Coastal Sediment Management Workgroup.
- Developing programs to support on-going beach nourishment in areas with a high potential for beach stability and recreational use.
- Supporting efforts for Opportunistic Beach Nourishment and providing training to local government staff on the filing and permitting steps necessary to implement such programs.
- Perform a study to examine the long-term effectiveness of hard structures along the coastline and the possible damages to the shoreline from their installation. The study should compare the effectiveness of those structures to other, more flexible protection activities. This



information would then point to aspects of the CCMP that would need to be changed to improve coastal hazard management.

- Complete a survey of the effectiveness of natural beach features in protecting coastal wetlands is needed.

Cumulative impacts and planning and regulation:

- Application of the ReCAP framework to undertake the periodic review of hazards management in LCPs is needed to address the cumulative impacts of growth and development along the coastline. Also, the review would improve the management of shoreline resources along other areas of the coast. Application of this framework could help develop needed technical, site specific data, including mapping, to determine the physical impacts from projects on shoreline resources.
- Improved programs and policies for siting structures away from high hazard areas and guidance on development strategies. Guidance for developing regional erosion and bluff retreat management plans, including alternatives to shoreline protective devices and alternatives to minimize the effects of emergency authorizations and rebuilding.
- Reevaluation, and possible modification, of the existing definition of “bluff edge” in the statewide interpretive guidelines for further clarity.
- Wildfires need to be recognized as a coastal hazard and LCP policies should be developed to insure that coastal lands are managed and developed to minimize the adverse impacts from wildland fires.
- Guidance for major watershed projects to address impacts to sand supply.

2. Priority:

<u>Last Assessment</u>	<u>This Assessment</u>
<b>High X</b>	<b>High X</b>

As discussed above, further attention to coastal hazards is a high priority. Many positive changes have occurred since the last assessment; however, far more work is necessary in staff training, outreach to local governments, workshops, and augmentation of the professional expertise on staff. The initial assessment enabled staff to focus on coastal hazards, to identify the cumulative impacts from coastal erosion, and to identify many of the approaches to address these impacts. The next steps need to both expand on general concerns, such as staff coordination and outreach to local governments, and focus on some of the specific concerns, such as improving setback policy, providing guidance and regional plans for emergency permits, guidance for beach nourishment and improving the identification of coastal hazards throughout the state.



**PUBLIC ACCESS**

**Section 309 Programmatic Objectives**

- I. *Improve public access through regulatory, statutory, and legal systems.*
- II. *Acquire, improve, and maintain public access sites to meet current and future demand through the use of innovative funding and acquisition techniques.*
- III. *Develop or enhance a Coastal Public Access Management Plan which takes into account the provision of public access to all users of coastal areas of recreational, historical, aesthetic, ecological, and cultural value.*
- IV. *Minimize potential adverse impacts of public access on coastal resources and private property rights through appropriate protection measures.*

**Resource Characterization**

*1. Extent of public access*

<b>Access Type</b>	<b>Extent (# of sites and/or # of miles or acres)</b>
State/County/Local parks	Along the coast, there are: <ul style="list-style-type: none"> <li>• 9 federal parks</li> <li>• 84 state parks equaling 23% of the coastline and 260 miles of shoreline</li> <li>• 89 local parks</li> </ul> Since 1997, four new beach access areas have been opened to the public.
Boat Ramps	There are 65 boat ramps.
Scenic Vistas	Much of Highway 1 (the shoreline road) contains scenic vistas. Many designated highway scenic vista points plus hundreds of local roads provide vistas.
Rights-of-Way	There are numerous accessways and 778 outstanding offers to dedicate easements along the coast. Since 1997, 236 easements have been accepted.
Fishing Piers	There are 18 fishing piers.
Nature Trails	Nature trails/Disabled access/boardwalks/walkways provide similar types of access to the coast and many exist in coastal cities and counties. For example, some boardwalks provide nature trail access as well as access for wheelchairs.
Disabled Access	See above.
Boardwalks/Walkways	See above.
Refuges	There are several refuges existing along the coastline. Since 1997, no expansions or additions have taken place.

Chart provided by OCRM and determined by CCC





2. Demand for public access.

According to the California Department of Finance, the state's population has increased by approximately 4.4 million people since 1996, reaching a total of 34.4 million people. Of this population, 85%—more than 29 million people—live within a two-hour drive of the coast. The Department of Finance projects California's population will grow to nearly 39 million by 2010 and to 60 million by the year 2040. This increase in residents will continue to stress the already overused public park system.

The net result is that California's population growth far exceeds the state's ability to provide for the outdoor recreation needs of residents and visitors. The cumulative impacts from growth and development lead not only to the need for new access opportunities, but greatly increase crowding and demands at existing access locations, which often leads to a degradation of quality at sites. To address these cumulative impacts to access, the Commission and local governments must work to open and maintain additional public access to the beach and maintain the quality of existing access opportunities.

3. Significant impediments to providing adequate access.

The main impediment is lack of funding to acquire, open, operate, and maintain public access areas. For instance, the Commission has required over 1200 public access easements, or offers-to-dedicate (OTDs) from private developers as mitigation for approved development projects. The Commission instituted this easement program in 1980 as a mitigation tool for impacts on public access from private development and required on average 150 OTDs per year. Now, 20 years into the program, only 37% of the easements have been accepted and only a small percentage of them have been opened to the public, due primarily to lack of money and fear of liability. Local governments and the state are reluctant to take on any additional areas of responsibility without funding to pay for it. Local non-profit groups are expressing interest in this easement program, but few have the financial resources to take on such a commitment. While the Coastal Commission has initiated programs to encourage easement acceptance, the program needs to continue to develop and implement innovative funding mechanisms to accept, open, and maintain access opportunities.

**Management Characterization**

1. Changes since the 1997 assessment.

Management Category	Changes since last assessment (level Significant/Moderate/None)
Regulatory Programs	<u>none</u>
Acquisition Programs	<u>none</u>
Comprehensive Access Planning	<u>significant</u>
Operation & Maintenance Programs	<u>moderate</u>
Innovative Funding Techniques	<u>moderate</u>
Public Education and Outreach	<u>moderate</u>

Chart provided by OCRM and determined by CCC



## 2. Nature of Changes

**Comprehensive Access Planning:** Since 1997, the Commission has designed and implemented an Access Inventory Database. This database contains information on the 1275 OTDs, 425 deed restrictions and 7 other legal documents that the Commission has required to enhance public access. This computerization is a result of the Enhancement Program. Computerizing the inventory facilitated the analysis of the data and the ability to share the data with the media, local government and nonprofits. This effort has enhanced the program's ability to prioritize the OTDs, identify appropriate management entities and ensure that OTDs are accepted before they expire. It has also provided background information to improve individual permit decisions.

Through the ReCAP effort, new guidance on addressing cumulative access impacts through development of Beach Management Plans and Regional Access Strategies has been developed, as discussed in the previous section.

**Operation and Maintenance Programs/Innovative Funding Techniques:** The Coastal Conservancy and the Commission published two booklets in 1997. The first, "Happy Trails to You", describes how to accept and manage offers-to-dedicate access easements. A booklet entitled "Limitations on Liability for Nonprofit Land Managers" is the second publication. In 1999, the McPherson bill, SB243, resulted in amendments to Civil Code Section 846.1, which increased liability protection and increased funds available for litigation defense.

**Public Education and Outreach:** Due to the computerized Access Inventory, staff has been able to educate the public about the status and issues relating to Offers to Dedicate public access. A Coastal Commission public hearing in 1998 led to numerous newspaper articles which in turn galvanized both government agencies and nonprofits to get more involved in accepting OTDs. Staff jointly has held workshops with the State Coastal Conservancy and Mendocino County to educate the various nonprofits about the OTDs and how they can participate in the process to achieve more open accessways. This prompted not only other jurisdictions but non-profits, as well, to initiate programs to accept OTDs.

## 3. Accomplishments.

Since 1997, the Coastal Access Program has addressed a number of the needs identified in the 1997 Public Access Action Plan:

- a. The Assessment identified a need for site-specific data in evaluating the physical impacts of seawalls upon beach access. Program improvements to address this issue have been made through several efforts: the Beach Erosion and Response Task Force (BEAR), the Project of Special Merit on sand mitigation in the San Diego region, and ReCAP.
- b. The 1997 Assessment identified a need to provide guidance on dealing with cumulative impacts from public access - impacts from posting illegal signs, red curbing, encroachments into public parking areas, etc. A ReCAP case study, *Regional Access Management Strategy for the Live Oak Area of Santa Cruz County*, ReCAP's *Procedural Guidance Document for Developing and Implementing Beach Management Plans*, and the Public Access Action Plan recommended mechanisms to address some cumulative impacts to access.



c. The 1997 Assessment identified several possible options to increase the OTDs accepted and opened on which significant progress has been made since 1997. These include:

- Suggesting implementing a fee schedule for projects built on public land and using fees for public access improvements. The City of Newport Beach's LUP contains such a policy and is being implemented through the permit process.
- Identifying a need to expand public access funding mechanisms.
- Identifying agencies or groups that will accept all Commission-required easements. The Commission signed a Memorandum of Understanding with the State Coastal Conservancy in April, 1996 that established a yearly review and acceptance procedure.
- Encouraging other public agencies to accept OTDs. At the request of the Commission, the State Lands Commission has started an active program to accept all lateral offers to dedicate on sandy beaches. State Lands has accepted a significant number of these offers, and has focused its first priority in the Malibu area. However, this program will not address all OTDs and the Commission may need to develop additional mechanisms to assist local governments and non-government organizations in accepting, opening, and maintaining OTDs. One successful mechanism in Mendocino County is the State Coastal Conservancy grant which paid for an OTD staff member to help nonprofit organizations review and accept OTDs.

d. Through its LCP Grant Program, the Commission has encouraged local governments to accept OTDs. The Commission added conditions to the grants awarded to Pismo Beach and the City of San Diego, for example, which stipulated that locality would accept all outstanding OTDs. The Commission expects that other jurisdictions will follow suit.

e. At staff's initiative and Commission endorsement, State Senator McPherson introduced SB243 to increase liability funds available for litigation defense when lawsuits arise from personal injury claims on public accessways. The bill, Knox AB 2291, amended section 846.1 of the California Civil Code.

f. The Commission has continued to improve the tracking of its required offers-to-dedicate to: 1) ensure compliance with conditions of development permits, and 2) to ensure that offers are accepted before they expire. In the absence of the tracking system, many OTDs would be lost.

## **Conclusion**

1. *Program Needs.* Based on the updated Assessment findings on public access, the following program needs are identified for the CCMP:

### **Access Program:**

- Improving the way local governments apply public access policies. The Commission should develop procedures and technical assistance to help local governments apply LCP access policies, particularly in light of evolving legal decisions and liability concerns. In particular, a Model Access Component for local governments to use as a reference would be helpful.



- Continuing improvements to the Commission's access program addressing access mitigation through OTDs. Improvements to help ensure that OTDs are accepted and opened for public use include: precise mapping of OTD locations, assistance to accepting agencies including more formal guidance outlining the steps to acceptance and guidance on liability issues, legal review of recorded documents, and development of management plans.
- Continuing to develop innovative funding mechanisms to accept, open, and maintain access opportunities and development of mechanisms to ensure ongoing maintenance of the public access.
- Creating comprehensive mapping to support completion of the statewide Coastal Trail, which the Commission is charged with identifying and implementing.
- Identifying and prioritizing prescriptive rights within the coastal zone. The Commission should work in concert with the Attorney General's Office to ensure that any access rights that the public may have acquired are preserved.

#### Cumulative Impacts Management

- Applying the ReCAP framework to undertake the periodic review of access components of LCPs is needed to address the cumulative impacts of development on public coastal access. Application of this framework could help develop needed technical, site specific data, including mapping, to determine the physical impacts from projects on public accessways.
- Ensuring that access is being provided to all communities. Regional evaluations of barriers to maximum public use are needed as well as strategies to provide access for a range of users and setting priorities for opening OTDs. The Commission should prepare and distribute regional access guides and maps, including guides for the disabled.
- Improving, and providing guidance for, monitoring and data collection to support cumulative impacts analysis, especially tracking of locally issued permits requiring public access and conditions placed on both Commission and local permits is needed.
- Improving management of polluted runoff to reduce beach closures.
- Continuing to improve the management of cumulative impacts in the Central Coast District as recommended by the pilot project needs to be carried out, including mechanisms to: encourage beach replenishment over shoreline protective devices; maximize visitor support facilities and upland support; implement alternative funding sources for transportation to support public access; and, provide measures to carry out the recommendations of ReCAP's *Regional Access Management Strategy* and *Procedural Guidance Document for Developing and Implementing Beach Management Plans*. The ReCAP framework can serve as a vehicle to apply these to other areas of the coastal zone. Staff training and outreach to local governments on these management measures is also needed.
- Identifying and removing or canceling non-permitted encroachments, signs, and programs that are inconsistent with Coastal Act policies. The Commission should develop Beach Management Plans, particularly in urban areas, to comprehensively manage the wide range of activities that occur on any given beach.



2. Priority:

Last Assessment  
**High X**

This Assessment  
**High X**

This program area remains a high priority for the CCMP. The access policies are a cornerstone of the California Coastal Act. Given the increasing population growth in the state, addressing the cumulative impacts of growth and development on public access in order to protect and maximize public access to the shoreline remains one of the Commission's highest public duties.

---

## WETLANDS

---

### **Section 309 Programmatic Objectives**

- I. *Protect and preserve existing levels of wetlands, as measured by acreage and functions, from direct, indirect and cumulative adverse impacts, by developing or improving regulatory programs.*
- II. *Increase acres and associated functions (e.g., fish and wildlife habitat, water quality protection, flood protection) of restored of wetlands, including restoration and monitoring of habitat for threatened and endangered species.*
- III. *Use non-regulatory and innovative techniques to provide for the protection and acquisition of coastal wetlands*
- IV. *Develop and improve wetlands creation programs as the lowest priority.*

### **Resource Characterization**

Approximately 91% of California's wetland acreage present before European settlement has been lost.<sup>2</sup> The largest losses of coastal wetlands (on a percentage basis) are thought to have occurred in San Francisco Bay and along the south coast.<sup>3</sup> The major impact suffered by California's wetlands is direct loss or degradation attributable to human activities. These activities include:

- *Conversion of wetlands to agricultural use:* Agricultural activities are the primary cause of wetland loss in California.<sup>4</sup>
- *Fill of wetlands for urban/industrial development:* The development of land for residential, commercial, and/or industrial uses has resulted in direct wetland loss through filling. In coastal areas, development in wetlands is strictly regulated and non-resource dependent uses are generally prohibited under the Coastal Act.
- *Oil and gas development.*
- *Roads, highways and railways.*
- *Port and marina development.*

---

<sup>2</sup> Dahl, T.E. 1990. Wetland losses in the United States 1780's to 1980's. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

<sup>3</sup>Dennis, N.B. and Marcus, M.L. 1984. Status and trends of California wetlands. Final report prepared for the California Assembly, Resources Subcommittee.

<sup>4</sup> Dahl, 1990.



- Flood control projects.
- Polluted runoff. Polluted runoff often occurs from existing development and ongoing agricultural activities. Sedimentation from poor watershed development practices, nutrient input, and sewage spills are just a few of the water quality impacts caused by nonpoint source pollution.

1. Direct and indirect threats to coastal wetlands, both natural and human-made

Threat	Significance
Development/fill	High
Erosion	Medium
Pollution	High
Channelization	High
Nuisance or exotic species	High
Freshwater Input	Medium
Alteration of Hydrology (Other)	High
Lack of Proper Buffers for Wetlands (Other)	High

Chart provided by OCRM and determined by CCC

**Development/fill:** All wetlands in California's coastal zone are potentially threatened by development/fill activities. However, this threat is probably of most concern in highly urbanized areas (e.g., Southern California) where the limited availability of suitable upland area has increased the pressure to develop remaining wetland areas. Existing wetland habitat has been most affected by the lingering effects of earlier development (e.g., point and nonpoint source pollution, chronic reductions in the amount of water reaching wetlands, and the loss of adjacent buffer areas).

**Pollution:** The water quality status of most wetlands within the coastal zone is unknown, due to inadequate available data. However, some wetlands are known to have suffered adverse impacts due to human development. The ReCAP done in the Monterey Bay area provided data to show that nonpoint source pollution is adversely affecting wetlands; pesticides and heavy metals are evident in some wetlands studied. Point source discharges also exist within some coastal wetlands; the exact effects of these discharges are not fully known. The Coastal Commission, as well as other government agencies, has taken steps to address polluted runoff.<sup>5</sup>

Impediments to addressing the threat of pollution include: 1) the inability to effectively quantify the nature and extent of the problem; 2) the difficulty of controlling the source of the problem--especially for nonpoint source pollution; and 3) the arduous education process within and among government agencies and the public to change practices and behaviors that result in polluted runoff.

Continuing to improve existing regulations and to monitor compliance will help ensure that adverse water quality impacts from new development do not occur or are adequately mitigated. However,

<sup>5</sup> California Coastal Commission, *Procedural Guidance Manual: Addressing Polluted Runoff in the California Coastal Zone*, San Francisco: October 2000.



the Enhancement Program found that real progress in addressing water quality problems is best achieved through watershed planning and management.

**Nuisance or exotic species:** The threat of exotic species (both plant and animal) is known to occur throughout the coastal zone and is of enormous concern. With few exceptions, there is limited information necessary to provide a detailed description of recent trends in the establishment of exotic species within the coastal zone. Although the reports of exotic species have tended to increase, this may be due to the fact that people are now paying more attention to this threat and documenting its occurrence. Concern among researchers and the academic community has increased, which may suggest the threat is increasing.

The main impediment to addressing exotic species is the lack of policy alternatives. Existing federal policies either focus on specific means of introduction (e.g. introduction via ballast water) or are very broad (e.g., the Fish and Wildlife Service's directive to address exotic plant species establishment). In both cases, the policies lack effective means to control new introductions and eradicate established exotic species. In addition, eradication of exotic species requires substantial disturbance to existing habitat and collateral damage to native species. In many cases, eradication is not possible. The main strategy is control of new introductions and the spread of established species. Future efforts should focus on this strategy as the primary means of reducing this threat.

**Hydrology/Erosion:** Development within and outside of the coastal zone has adversely affected the hydrology of many wetlands within the coastal zone through increased runoff, channelization, increased erosion, nonpoint source pollution, and changes in water flow. Wetlands may lose their tidal connection due to interference from development, which often creates the need for periodic dredging in perpetuity. In the Monterey Bay region, ReCAP determined that the hydrology of virtually all wetlands have been altered by human activities. Natural events can also affect hydrologic processes which, combined with anthropogenic alterations, can lead to synergistic cumulative impacts, including reductions in water quality, changes in habitat composition, and reductions in habitat size and biodiversity. For example, dry seasons decrease the flow of fresh water into salt marshes, altering the quality of the wetland system.

The lack of comprehensive, watershed-based planning is the major impediment to addressing threats to wetland hydrology. Watershed management can help to reduce duplication, foster cooperation and consistency, and result in more efficient use of limited government funds. Such plans can recommend regulatory improvements to uniformly apply to new development in the watershed as well as necessary programs to comprehensively address existing contributory activities and uses.

**Lack of proper buffer areas for wetlands:** Undeveloped upland areas adjacent to wetlands, which buffer the wetland from human development and activities, have diminished over time and will continue to do so, absent improvements in the regulatory process. While buffers are an important aspect to protecting a wetland, the Coastal Act does not contain specific requirements for buffer zones. LCPs also lack a clear direction regarding buffer provisions.

The chronic loss of these transition zones adversely affects the quality of wetland habitat eventually leading to a loss in biodiversity and overall degradation of the resource. The scientific information necessary to determine the proper size of a buffer area in California is also lacking, so it is not known what size buffer will best protect a wetland and what, if any, uses are compatible with a buffer area. Buffers also are not required for activities, such as on-going agriculture, that are



exempt from or predate the permit process, although these activities can lead to ongoing impacts to a wetland.

**Loss of habitat for endangered and threatened species:** In California, wetlands support 41 of the state's rare and endangered species. All of the impacts to wetlands discussed above directly impact the survivability of wetland-dependent species. In order to recover, there must be improvements to and protection of the native habitat of these species.

### **Management Characterization**

#### *1. Changes since the 1997 Assessment.*

<b>Management Category</b>	<b>Changes since last assessment</b>
Regulatory Programs	<i>None</i>
Wetlands Protection Standards	<i>None</i>
Assessment Methodologies	<i>Moderate</i>
Impact Analysis	<i>Moderate</i>
Restoration/Enhancement Programs	<i>Significant</i>
SAMPs	<i>Moderate</i>
Education/Outreach	<i>Moderate</i>
Wetlands Creation Programs	<i>Moderate</i>
Acquisition Programs	<i>Significant</i>
Mitigation Banking	<i>Moderate</i>

Chart provided by OCRM and determined by CCC

#### *2. Nature of changes.*

**Assessment Methodologies:** Changes which have improved the description of wetlands and provided a more consistent means for assessing mitigation include:

- Implementation of the Hydrogeomorphic Approach (HGM) for wetland assessment. This approach was developed by the Army Corps of Engineers (COE) and implementation in California is coordinated through the COE and the Environmental Protection Agency.
- Improvement in wetland delineations using established methodologies. This is not a funded enhancement program change, but these efforts benefited from enhancement program related work.

**Restoration/Enhancement Programs & Wetland Creation/Acquisition Programs:** The State Coastal Conservancy is the primary agency responsible for such programs in the coastal zone, although the Coastal Commission assists in an advisory capacity to aid the planning process and regulatory approval. A Coastal Services Center (CSC) Coastal Management Fellow joined the Commission in July 2000 to work on a project called the "Creation of a Habitat Inventory and Information System to Facilitate Wetland Preservation and Restoration in Central and Northern California". The two-year CSC Fellowship will provide information on wetlands by developing a wetland information system for four Commission-identified priority counties: San Luis Obispo, San Mateo, Humboldt, and Del Norte.





The Coastal Conservancy is actively involved in the South California Wetlands Recovery Project, created in 1997 to acquire, restore, and enhance coastal wetlands. In 1998, the Project received approximately \$6 million in State funding, an amount that will increase due to additional funds available through State Propositions 12 & 13, the Parks and Water bonds. These propositions will also help the Coastal Conservancy and other public agencies fund acquisitions, restorations, and enhancements of wetlands throughout the state.

**Special Area Management Plans:** Changes include:

- Development of management plans for specific wetlands within the coastal zone. Information from the Enhancement Program such as guidance documents have substantially improved these efforts.
- Continuing work by the Resources Agency to develop a strategy for a regional planning framework for Southern California coastal wetlands.
- The Southern California Wetlands Recovery Project.

**Education/Outreach:** Changes include:

- Better interagency communication in relation to the completion of Enhancement Program related projects (e.g. ReCAP, Fellow's wetlands inventory project) and distribution of information resulting from those projects (e.g. wetland procedural guidance manuals).
- Interaction with local government, site representatives (e.g., Elkhorn Slough managers and staff), and individuals from academic institutions through seminars and conferences.

**Mitigation Banking:** Although the concept of wetland mitigation banking has been around for a number of years, the Commission has been increasingly drawn into discussions of proposed wetland mitigation banks in the coastal zone. This increase coincided with the issuance of State and Federal guidance on mitigation banking in 1995. The Enhancement Program has greatly increased the Commission's ability to effectively participate in the framing of this emerging approach.

**Conclusion**

*1. Priority Needs:* The following program improvements are needed to better address individual and cumulative impacts threats to wetlands:

Communication, research and technical assistance needs:

- Continual improvements to methods to review and incorporate into the CCMP the extensive data and information that has been developed on wetlands over the last 15 years.
- Researchers need to be better informed of the needs of government staff to ensure that policy-relevant research is undertaken. Improved scientific understanding and access to technical information for Commission staff is also needed.
- Funding for staff to participate in interagency and interdisciplinary forums to resolve wetland management and restoration issues.
- Monitoring or developing a series of restoration projects to demonstrate alternative restoration techniques to study their long term effectiveness, and to test the economic and scientific factors, practicality and usefulness of restoration and monitoring techniques;
- As recommended by ReCAP, research in and consistent implementation of adequate sized buffers and transition zones. Evaluate whether amendments to the Coastal Act are warranted to establish buffer requirements and to clarify that natural vegetation removed for agricultural



purposes in a wetland/buffer area, where it has not recently been farmed, is development under the Coastal Act.

Legislative needs:

- Possible legislative changes for:
  1. updating and maintaining reports on natural resources of all coastal wetlands;
  2. developing a comprehensive, coordinated, and focused wetland protection and restoration program for California's coast; and
  3. analyzing and updating certified LCPs as new data from LCP monitoring becomes available.

Cumulative impacts management/ programmatic needs:

- Application of the ReCAP framework to undertake the periodic review of wetlands and watershed management policies of LCPs is needed to address the cumulative impacts to wetlands and water quality and to improve the management of these resources along other areas of the coast. Application of this framework could help develop needed technical, site specific data, including mapping, to determine the physical impacts from projects on wetlands and watershed resources.
- Guidance to develop regional wetland and watershed management plans.
- Development of interagency procedures for monitoring wetland development, mitigation (including mitigation banks), and restoration, including criteria for effective design and implementation and criteria for evaluating successful projects.
- Refined criteria for permit conditions and mitigation and restoration policies for interagency use that adequately account for the unique attributes of California's wetlands systems.
- Continued efforts to implement a nonpoint source water pollution program to strengthen wetland protection. While the Commission has laid the foundation for strengthening its review of polluted runoff, this program needs to be expanded. Staff anticipates that the Critical Coastal Area effort will further our wetland protection efforts.

2. *Priority:*

Last Assessment  
**High X**

This Assessment  
**High X**

Although significant progress has been made on specific aspects of the wetland issue area, the overall goal of establishing an integrated, comprehensive wetland management and enhancement program remains unfulfilled. The Coastal Act clearly mandates the preservation and enhancement of California's coastal zone wetlands. Yet population growth, continuing development pressure, limited scientific understanding, lack of coordination and communication, insufficient funding and expertise, and political inconsistencies in protecting wetlands all impede substantial progress to achieving the overall goal. As found in the last assessment, wetland issues remain a high priority for enhancing the coastal program, from both a State and national perspective.



**OCEAN RESOURCES**

**Section 309 Programmatic Objectives**

- I. *Develop and enhance regulatory, planning, and intra-governmental coordination mechanisms to provide meaningful state participation in ocean resource management and decision-making processes.*
  
- II. *Where necessary and appropriate, develop a comprehensive ocean resource management plan that provides for the balanced use and development of ocean resources, coordination of existing authorities, and minimization of use conflicts. These plans should consider, where appropriate, the effects of activities and uses on threatened and endangered species and their critical habitats.*

**Resource Characterization**

<b>Resource or Use</b>	<b>Threat or Conflict</b>	<b>Degree of Threat (H/M/L)</b>	<b>Anticipated Threat or Conflict</b>
Habitat and living resources	Decline of habitat and fisheries, water pollution	High	Point and nonpoint source pollution and habitat loss in watersheds and coastal areas
Water quality	Pollution from inland waterways	High	Watershed degradation from polluted runoff
Shoreline erosion	Development, river channelization, dam construction	High	Development activities, armoring
Ports and harbors	Dredge and fill, conflicts with habitat	Medium	Dredge and fill, conflicts with habitat
Vessel traffic	Potential spills	Medium	Potential spills
Oil and gas	Cumulative impacts to offshore resources and coastal communities	High	Oil spills, aging facilities, pollutant discharges
Tourism and recreation	Unmet demand, user conflicts	Medium	Unmet demand, user conflicts
Research and education	Research priorities	Low	Research priorities
Mineral extraction	Offshore mining of sand and gravel, deep ocean mining	Low	Offshore mining of sand and gravel, deep ocean mining



Resource or Use	Threat or Conflict	Degree of Threat (H/M/L)	Anticipated Threat or Conflict
Desalinization	High cost and energy demand, potential coastal/ marine resource impacts	Medium	High cost and energy demand, potential coastal/ marine resource impacts (e.g., brine discharges), potential growth-inducing effects.
Fiber optic cable project	Impacts to coast and ocean resources from installation of fiber optic cables	Medium	Hard bottom habitat destruction, whale entanglement, public access, water quality, fishing
Marine Protected Areas	Resource management, user conflicts	Medium	Resource degradation, user conflicts
Fisheries	Species depletion, user conflicts	Low	Species depletion, user conflicts
Oil spill response technology	Impacts to water quality and marine resources	Low	Impacts to water quality and marine resources

Chart provided by OCRM and determined by CCC

2. Changes since the 1997 Assessment.

- Since 1997, the state has made improvements in the management of ocean resources. The Contaminated Sediments Task Force for the Los Angeles River Basin has been established by the legislature with a goal of developing a management strategy for disposal of dredged materials by 2003; the Commission co-chairs the taskforce with the Los Angeles Regional Water Quality Control Board.
- The Commission is a member of the Resources Agency Sea Grant Advisory Panel (RASGAP) which advises the Secretary for Resources on priorities for state matching funds for Sea Grant projects. The Sea Grant research and education program continues, as does work on the San Francisco Bay and Santa Monica Bay National Estuary Programs. Work continues on the proposed San Francisco Bay National Estuarine Research Reserve.
- The CCC facilitates the quarterly meetings of the Coast and Ocean Managers group. The Coast and Ocean Managers group consists of representatives from California's coastal management agencies (California Coastal Commission, San Francisco Bay and Conservation Development Commission and the State Coastal Conservancy), the state's National Estuarine Research Reserve Systems (Tijuana River, Elkhorn Slough, S.F. Bay), the state's National Marine Sanctuaries (Channel Islands, Monterey Bay, Gulf of the Farallones, and Cordell Bank), and a representative from the California State Lands Commission. The managers in this group collaboratively work to problem solve and achieve the common goal of enhanced coast and ocean management.



- In June 1998, the National Ocean Conference afforded an opportunity to address ocean programs and policies for the 21<sup>st</sup> century. Important attention also continues to be given to ocean resource issues through new and expanded programs being implemented by California's four National Marine Sanctuaries at the Gulf of the Farallones, Cordell Bank, Monterey Bay, and the Channel Islands. An example of one such important effort that has been completed is the Monterey Bay Water Quality Protection Program, in which the Commission has been a leading participant.
- Demands for dredging and disposal of dredge material to allow for port expansion continues, and there is a continued need to address the methods for mitigation of port processes. While major improvements to vessel traffic management have occurred through the work of harbor safety committees, close calls still occur even with many new protective measures. Population and tourism continues to grow, placing continued stress on the ocean resources through a wide range of activities (e.g., jet skis). Marine user conflicts have increased. Fiber optic cable projects have proliferated, affecting fishing and other ocean resources.

**Water Quality.** Although point and nonpoint source pollution continue to impact ocean resources, the state has made a major step forward in addressing nonpoint source pollution by beginning to implement the *Plan for California's Nonpoint Source Pollution Control Program* (January 2000), that was approved by the USEPA and NOAA last year. This program brings the combined authority of over twenty state agencies to bear on the issue of nonpoint source pollution and has the goal of implementing at least 61 management measures for six different land use categories by 2013. As discussed in other sections of the assessment, initial steps have included interagency meetings to identify "critical coastal areas" (where nonpoint source pollution creates or threatens to create adverse impacts on coastal water quality) and meetings to enhance interagency cooperation and minimize overlap. Beach closures continue to plague California's coast and have resulted in legislation to increase monitoring and promulgate statewide standards for protecting public health. In addition, Governor Davis has proposed to dramatically increase spending to improve water quality at public beaches and create a goal of reducing closures by 25% by the summer of 2002 and a 75% reduction by 2010. The state is in the process of developing a "Proposal for a Comprehensive Ambient Surface Water Quality Monitoring Program" for the whole state that will include ambient monitoring of coastal waters.

In 2000, California had the highest number of beach closings due to poor water quality. The state is lacking a water quality monitoring program covering all tributaries, small bays and estuaries or the entire nearshore waters along the coast and therefore it remains difficult to comprehensively determine the health of these waters.

**Marine Protected Areas.** The Coastal Commission has participated in several important efforts related to MPAs in recent years. Commission staff participated in a State Interagency Marine Managed Area (MMA) Workgroup that in January 2000 issued its report, "California's State Classification System for Marine Managed Areas." Two state laws were also passed related to reclassification of MMAs. The Marine Life Protection Act, which passed in October 1999, directs the Fish and Game Commission to streamline and consolidate MPAs and 'marine life reserves' statewide, improve management and enforcement through development of a 'master plan,' and assess alternative sites. The second law involved creating a 'Master Plan Team' to implement this law. Coastal Commission staff are participating in these meetings. In 2000, the Marine Managed Areas Improvement Act was passed, which mandates the replacement of existing management classifications for marine and estuarine 'managed areas' into six consolidated classifications.



At the federal level, in January 2000, the California Coastal National Monument was designated and placed under the jurisdiction of the BLM. The monument includes all islands, rocks, exposed reefs and pinnacles above the high water mark that are currently owned by the U.S. along the entire California coast and extending out for 12 miles. Commission staff have met with BLM staff and will be involved in a commenting and/or permitting role for regulations and/or use restrictions that the BLM may promulgate. A May 2000 Presidential Executive Order to develop a national MPA system also directed NOAA to establish Marine Protected Area Centers (one for policy, one for science); and, in November 2000, the City Santa Cruz in California was selected as the site of new national MPA science center. Commission staff have been in contact with the new center's staff and anticipate future collaboration with the center. Commission district staff have been involved with activities related to several of the national marine sanctuaries offshore California.

The Channel Island National Marine Sanctuary is considering expansion of its boundaries, and the Monterey Bay NMS recently completed a Kelp Management Report. Commission staff have also commented on issues related to NOAA's consideration of whether to promulgate rules related to fiber optic cable projects in national marine sanctuaries.

Additionally, Commission staff have performed MPA-related work during the course of permitting various types of projects, including fiber optic cable projects, oil and gas projects, recent changes in vessel lanes to avoid California marine sanctuaries and reduce oil spill risk, and the permitting of new MPAs.

**Fiber Optic Cables (FOCs).** Coastal Commission staff reviews proposed fiber optic cable (FOC) projects for their consistency with the California Coastal Act for compliance with the California Environmental Quality Act, and for consistency with the federal Coastal Zone Management Act. Major Coastal Act issues associated with these projects include impacts to marine resources, consolidation of facilities (corridors and co-landings), removal of cables, mitigation fees, cable burial, protection of marine mammals, public access, commercial fishing, water quality, and impacts to environmentally sensitive habitat areas.

In 2000, the California Coastal Commission permitted four offshore FOC projects, consisting of six trans-Pacific and three north-south aligning cables. This illustrates the recent expansion of FOC development in the coastal zone. From the Coastal Commission staff's permitting and regulatory experiences with these projects, staff has developed a set of general principles and standard conditions for FOC projects in order to minimize or avoid environmental impacts and make the projects consistent with the Coastal Act. These principles have evolved over time, and continue to change as the Commission acquires greater knowledge and experience with permitting of FOC projects.

State and federal agencies as well as interested parties and the public would all be better served by the completion of a programmatic environmental impact report (PEIR) of FOCs and their cumulative impacts on coastal resources.

**Vessel Traffic.** In 1997, the Monterey Bay National Marine Sanctuary (MBNMS) and the U.S. Coast Guard (CG) forwarded to the International Maritime Organization (IMO) a subset of vessel traffic management recommendations made by a 22-member multi-stakeholder workgroup. Commission staff was active in this workgroup.

Based on the workgroup recommendation, the IMO subsequently approved a set of "recommended tracks" for large cargo vessels and vessels carrying hazardous cargo in bulk



offshore central California. These two IMO-approved measures are coupled with voluntary vessel agreements already in place for oil tankers carrying Alaska North Slope crude oil, and one to be crafted for barges carrying oil as cargo. There were also accompanying changes to traffic separation schemes off the entrance to San Francisco Bay, and exiting the Santa Barbara Channel. As a suite of measures, these provide greater assurance of large offshore vessels traveling in a more predictable and orderly manner along central California, thereby reducing the threat of a major oil spill.

The MBNMS/CG efforts are now being used as a model for similar studies by a British Columbia (BC)/States workgroup. This broader effort covers the entire west coast ( from Cook Inlet, Alaska, to San Diego, California). The BC/States effort, in which Commission staff also actively participates, is expected to continue through 2002. Characterizing the nature of vessel traffic off the west coast has been difficult, and creates a continuing information need.

**Oil Spill Response Technology.** The use of chemical dispersants, or *in-situ* burning of spilled oil, are two examples of “alternative response technology” (ART). If applied successfully, these technologies, coupled with traditional mechanical oil spill cleanup techniques, can reduce the amount of surface-carried oil able to foul sensitive resources. However, use of ART involves environmental trade-offs. While later generations of chemical dispersants have themselves become less toxic, they nevertheless serve to take the oil into the water column, where the fine oil droplets can be taken up by marine organisms. Likewise, a successful *in-situ* burn can remove spilled oil from the water surface, but instead place oil particulates (ash) into the air or into the water column. Commission staff continues to work with state and federal oil spill response agencies, trustees, and industry to identify federal consistency or permitting issues that may arise from the use of ART.

**Southern Sea Otters.** The California (southern) subspecies of sea otters, listed as threatened under the federal Endangered Species Act (ESA), underwent a significant population decline between 1996-2000. In addition to fewer sea otters counted during biannual surveys, sea otter mortality increased throughout their range. While the sources for increased mortality have not been fully ascertained, it may be that an increase in the incidence of infectious disease, perhaps aided by some level of immune deficiency, may be a significant contributor to the decline. Nonpoint water pollution has been suggested as a possible source of contamination to the sea otter population. While many agencies and institutions are now focused on research to answer these questions, there are tremendous remaining information needs regarding nearshore California coastal ecosystem health and monitoring.

At roughly the same time as overall population decline, sea otters expanded their natural coastal range to south of Pt. Conception, and into a sea otter “containment” zone established in 1987 as part of a sea otter translocation effort to an offshore California island, San Nicolas island. The Public Law (P.L. 99-625) supporting this translocation also established containment zones, from which sea otters would be excluded. PL 99-625 also established criteria under which the translocation could be considered “failed”.

Taking the factors of coastal sea otter population decline, expansion of sea otters into a containment zone, and the overall poor success of the San Nicolas Island translocation into account, the U.S. Fish and Wildlife Service (USFWS) has within the past two years 1) redrafted its Southern Sea Otter Recovery Plan, 2) initiated a consultation under Section 7 of the ESA, 3) issued a Biological Opinion, and 4) provided an evaluation of the translocation program. Commission staff provided comment to the USFWS on the Recovery Plan, the Biological Opinion,



and the translocation evaluation. The USFWS has assured Commission staff that should there be any changes to the translocation or containment program (as they anticipate), the USFWS will reapply for Coastal Commission federal consistency review of the southern sea otter translocation program. This application for federal consistency may occur within the next one to two years.

Resolution of sea otter recovery objectives may affect related future decisions regarding commercial fisheries and oil exploration and leasing.

**Management Characterization**

1. *Changes in programs and initiatives developed since the 1997 assessment.*

<b>Program</b>	<b>Status</b>
Statewide comprehensive ocean management statute	<u>Yes</u> — California Ocean Resources Management Act
Statewide comprehensive ocean management plan	<u>Yes</u> — <i>California's Ocean Resources: An Agenda for the Future.</i>
Single purpose statutes related to ocean resources	<u>Yes</u>
Statewide ocean resources planning/working groups	<u>Yes</u>
Regional ocean resources planning efforts	<u>Yes</u>

Chart provided by OCRM and determined by CCC

2. *Nature of changes.*

**Statewide Plan:** *Plan for California's Nonpoint Source Pollution Control Program* (January 2000)

**Single Purpose Statutes:** Many amendments have been made to single purpose statutes affecting ocean resources, including, for example, amendments to fisheries laws, to the Oil Spill Prevention and Response law and new statutes which establishes major funding through Section 8g of the Outer Continental Shelf Lands Act (OCSLA) for local governments affected by activities on the OCS.

**Statewide Working Groups:** Interagency Fiber Optic Cable Group co-chaired by the Resources Agency and the Technology, Trade, and Commerce Agency.

**Regional Planning Efforts:** Examples include the Los Angeles Basin Contaminated Sediments Taskforce, the Morro Bay National Estuary program efforts, and the Monterey Bay National Marine Sanctuary Advisory Committee

**Research and Education:** The Commission is working with RASGAP to revise the priorities for State matching support of Sea Grant projects.

**Conclusion**

1. *Major gaps in meeting the programmatic objectives.* The following program needs are identified:

- Development of guidelines for long-term planning for conservation and protection of ocean resources and uses, and specific policy priorities and guidelines for long-term management of California's interests in federal waters (particularly those relating to resource and use conflicts)





in federal and state waters). Development of measures for proposed implementing legislation, if any.

- Focus on ocean policy analysis in components of the state's educational system.
- Improvements to interagency management of ocean resources, including development of possible alternative conflict resolution mechanisms and frameworks.
- Focused attention on watershed management and control of polluted runoff. This includes the need to identify permanent sources of funding for water quality staff. The need for further reducing and improving the control of polluted runoff and for participating in watershed management efforts is also discussed under the related issue areas of Wetlands, Public Access, and Cumulative Impacts.
- Research on the long-term effects of fresh water nuisance flows on intertidal biological communities and on the health effects from nonpoint source pollution on California beaches.
- Improved policies to minimize risks from vessel traffic offshore.
- Program improvements to clarify and integrate Commission's responsibility for oil spill prevention and response with applicable federal consistency requirements, if any.
- Programmatic environmental impact report on fiber optic cable projects.

2. *Priority:*

Last Assessment  
**Medium X**

This Assessment  
**Medium X**

Ocean Resources remain, as in the 1997 Assessment, a medium priority of the CCMP. Addressing the myriad impacts to ocean resources, both as an individual agency and in coordination with other agencies, will be an important aspect of the Commission's role during the next five years. NPS, oils spills, and other impacts of on- and offshore development will continually pose challenges to managing ocean resources. This enhancement area requires the persistent attention of the Coastal Commission to help ensure the balanced use and development of ocean resources. It is therefore a medium priority.

---

**MARINE DEBRIS**

---

**Section 309 Programmatic Objectives**

*I. Develop or revise programs that reduce the amount of marine and lake debris in the coastal zone.*

The Coastal Commission carries out an ongoing, statewide campaign that combines conservation, education, recycling, community involvement, minority outreach and hands-on action to solve the problems of coastal management and ocean pollution. The program includes a statewide annual Coastal Cleanup Day, a year-round Adopt-A-Beach program of beach and waterway cleanups, a statewide clean boating campaign, a restoration education program at Upper Newport Bay in Orange County, an on-line directory of marine, coastal and watershed educational resources, a marine education and restoration grant program, a school assembly program, and a set of K-12 conservation-oriented school materials called Save Our Seas. In the coming years, the Coastal Commission's marine debris education program plans to work with fishermen to reduce the waste associated with fishing, especially nets and plastic line, and encourage recycling of these products.



**Marine/Lake Debris Characterization**

*1. Extent of marine debris and its impact on the coastal zone.*

<b>Source</b>	<b>Impact</b> (Significant/Moderate/Insignificant)	<b>Type of Impact</b> (aesthetic, resource damage, etc.).
Nonpoint sources (urban runoff)	Significant	Aesthetic and resource damage
Land-based Recreation	Significant	Aesthetic and resource damage
Boating	Moderate	Aesthetic and resource damage
Offshore operational waste	Low	Aesthetic and resource damage
Sewage and medical waste	Low	Health

Source: 1995 International Coastal Cleanup, California Results, Center for Marine Conservation Chart provided by OCRM and determined by CCC

*2. Changes since the 1997 assessment.*

In terms of the overall trend, local beach managers continue to report reductions in apparent litter, especially at beaches involved in the year-round Adopt-A-Beach program. The percentage of bottles and associated goods found in the debris collected during California's annual cleanup declined dramatically from 20% in 1988 to about 9% in 2000. It appears that the state's beverage container recycling program, which came into full operation during this period, is responsible for the decline in this specific type of litter. In the past eight years, however, the percentage has leveled off to approximately 7.5% each year. However, the beverage container recycling law was expanded in 2000 and is expected to reduce the incidence of beverage container debris further. Plastic continues to be the biggest and most persistent contributor to marine debris.

**Management Characterization**

*1. Changes since the 1997 Assessment.*

<b>Program</b>	<b>Status</b>
State/local program requiring recycling	Existed – expanded in 2000
State/local program to reduce littering and wasteful packaging	Existed
State/local regulations consistent with Marine Plastic Pollution Research and Control Act	Existed
Marine debris concerns incorporated into harbor, port, marina and coastal solid waste management plans	Existed
Education programs	Existed

Chart provided by OCRM and determined by CCC



2. Nature of the Changes.

Marine debris concerns have been integrated into marina and harbor pollution control initiatives through the Commission's Coastal Nonpoint Pollution Control Program. Other avenues have been through the public education elements of the Santa Monica Bay and San Francisco Bay National Estuary Projects, and the NPDES storm drain discharge programs of coastal jurisdictions. The awareness of the impact of marine debris has been greatly increased through these efforts. Beverage container recycling was expanded in 2000 with the enactment of a law that expands the types of beverage containers covered by the California Refund Value program (consumer pays a surcharge, which is redeemed at a recycling center). The program now includes beer and wine containers, bottled water, fruit juices, coffee and tea drinks and sports drinks. This program should further reduce marine debris. We do not yet have the data from Coastal Cleanup Day 2000 to see if a change in the quantities of these items was recorded.

**Conclusion**

1. Significant gaps or impediments.

The Commission's successful campaign to qualify a new Coastal Protection license plate has provided an ongoing funding source for the Coastal Commission's marine debris programs. The license plate sales also support local programs to reduce marine debris. As a result, the Coastal Commission has added staff and developed a public education program that has significantly enhanced the Commission's efforts to deal with marine debris. Therefore, funding is less of a concern than in previous assessments and the need to enhance this area is now a low priority.

2. Priority:

<u>Last Assessment</u>	<u>This Assessment</u>
<b>Medium <u>X</u></b>	<b>Low <u>X</u></b>

Marine debris is a significant problem on the California coast and one that will require extensive intergovernmental and public cooperation to solve. It is also a focus of widespread direct public involvement with the coastal management program, especially for young people, and can act as an introduction to participation in more complex coastal issues. It is also a subset of the public access and wetland issues, having impacts on both. Integrating marine debris-related activities into the overall coastal enhancement scheme will make for a stronger strategy.

**ENERGY AND GOVERNMENT SITING**

Section 309 Programmatic Objectives

- I. Enhance existing procedures and long range planning processes for considering the needs of energy-related and government facilities and activities of greater than local significance.
- II. Improve program policies and standards which affect the subject uses and activities so as to facilitate siting while maintaining current levels of coastal resource protection.

**MANAGEMENT CHARACTERIZATION**

1. Energy Facilities



Since preparation of the last assessment, California's and government siting activities have included completion of several studies; activities on federal oil and gas leases including litigation; oil spill plan review; and power plant projects.

**California Offshore Oil and Gas Energy Resources (COOGER) Study Complete.** Since the last assessment, the *California Offshore Oil and Gas Energy Resources* ("COOGER") study was completed (January 2000). The purpose of the COOGER study was to address local government (San Luis Obispo, Santa Barbara and Ventura counties) and State concerns about the potential demands on onshore infrastructure resulting from expanded California offshore oil and gas development. The study examines different levels of demand for onshore infrastructure that might result from different rates of offshore oil and gas development. The U.S. Department of the Interior and oil industry funded the COOGER study. Between 1993 and 2000, Commission staff participated as a member of the management team overseeing the study's preparation.

**High-energy Seismic Survey (HESS) Multi-Agency Process Complete.** There has been increased interest on behalf of the oil industry to use a new high-energy seismic survey technology to map reservoir information. The use of this new technology could (1) enhance oil and gas development within existing state and federal lease areas, (2) result in significant impacts to marine resources and the marine environment, and (3) result in space use conflicts in ocean waters. Commercial and recreational fishermen, environmental groups, and members of the public have expressed a great deal of interest in ensuring that potential impacts to coastal resources resulting from high-energy seismic survey activities are minimized.

Between September 1996 – February 1999, the Commission staff participated in a multi-agency High Energy Seismic Survey Task Force whose work resulted in publication of the *High Energy Seismic Survey Review Process and Interim Operational Guidelines for Marine Surveys Offshore Southern California*. The document includes a multi-agency coordinated project review process and suggested operational guidelines for the companies to consider when designing proposed surveys. The proposed process will not pre-empt or supercede any applicable statutory or agency regulations. However, if the process proceeds as outlined, it will result in a more efficient review than what occurred in the past. Members of the task force meet annually to update the document, if necessary.

**Coastal Commission Lawsuit against Department of the Interior.** There are currently 36 undeveloped federal outer continental shelf ("OCS") leases offshore California. Between 1968 and 1984, the U.S. Department of the Interior conducted lease sales which resulted in the issuance of one lease in 1968 and the remaining 35 leases between 1979 and 1984. All of the leases were initially extended beyond their primary 5-year term by lessee requests for lease suspensions. In 1992, the Minerals Management Service ("MMS") directed lease suspensions in order to conduct the COOGER study (described above). The last directed suspension expired in August 1999. In May 1999, at the close of the COOGER study, the lessees submitted to the MMS additional requests for suspensions to give the companies more time to develop plans for exploring or developing these leases. The suspension requests were necessary to avoid expiration of the leases. In July 1999, the Coastal Commission asserted federal consistency review authority over the requests for suspensions under the Coastal Zone Management Act ("CZMA"). In November 1999, the MMS approved the requests for suspension without requiring the lessees to submit consistency certifications to the Coastal Commission. These suspensions run for a maximum of 4 years, though they vary by lease. Under the suspensions, the lessees are required to complete specific work toward development of the leases.



In November 1999, the Coastal Commission, Governor of California, and Attorney General filed suit in U.S. District Court asserting that MMS should not have approved such requests without the Coastal Commission's review and approval of consistency certifications pursuant to the CZMA. That case, *State of California ex rel. Coastal Commission v. Babbitt et al.*, is still pending.

**Exploration and Development of the 36 Federal Leases.** While *State of California ex rel. Coastal Commission v. Babbitt et al.* is pending, the lessees are developing plans to explore and develop the subject 36 federal leases. Coastal Commission staff is currently reviewing a proposal to drill two exploratory wells into the Cavern Point Unit from existing Platform Gail. One operator is proposing to amend an existing Development and Production Plan ("DPP") to use three existing Point Arguello platforms to develop the resources of the Rocky Point Unit. The MMS is also preparing an environmental impact statement ("EIS") to evaluate the potential impacts of using a mobile drilling rig to drill 5-8 delineation wells on four units located in the Santa Maria Basin and northern Santa Barbara Channel. All of these projects will require federal consistency review under the CZMA.

**Oil Spill Response Plans.** Coastal Commission staff is currently reviewing oil spill response plans (OSRPs) for existing federal offshore oil platforms. Oil spill response capability was required as part of previously concurred-in federal consistency certifications issued by the Coastal Commission for platform development and production plans (DPPs). Over the past year, Commission staff has provided written comments to the Minerals Management Service (MMS) on each plan. Commission staff comments to the MMS on the OSRPs have focussed on issues that might trigger further federal consistency review, such as platform response equipment changes, or changes in response time.

**Power Plants.** Since the last assessment was prepared, California de-regulated its energy market, which prompted a number of power generators like Pacific Gas & Electric and Southern California Edison to sell off their coastal power plants to new operators. The Coastal Commission is currently reviewing proposals to modernize or expand six existing coastal power plant facilities. The last coastal power plant project to be reviewed by the Coastal Commission was over 10 years ago.

The Coastal Commission has permit jurisdiction over thermal power plants fewer than 50 megawatts. The California Energy Commission ("CEC") has exclusive jurisdiction over thermal power plants of 50 megawatts or greater. For those projects 50 megawatts or greater, the CEC preempts the jurisdiction of all other state and local agencies (including the Coastal Commission and local governments) when it certifies a new, modified or expanded power plant. However, the Coastal Act requires the Coastal Commission to submit a report to the CEC analyzing the proposed power plant project's conformity with the Coastal Act's Chapter 3 policies and the policies of any certified local coastal program ("LCP"). The Coastal Commission expects to see additional power plant expansion projects within the next few years.

Concurrence with the National Pollutant Discharge Elimination System (NPDES) General Paragraph. In January 2001, the Coastal Commission concurred in the federal consistency certification for EPA's new NPDES general permit that will cover a total of 22 oil and gas platforms on the Outer Continental Shelf offshore California. Discharges from 14 of the 23 platforms had been regulated by a general NPDES permit that the EPA issued in 1982; the remaining eight platforms were covered by individual NPDES permits. All of these permits had effectively expired, but had been renewed administratively on an annual basis since their issuance. The new general permit now regulates discharges from all existing platforms plus discharges from exploration vessels; the primary discharges of concern are produced water, drilling fluids and drill cuttings.



The new general permit brings substantial environmental improvements by requiring all existing facilities meet EPA's stringent 1993 effluent limitations guidelines. In addition, the new general permit provide a host of improvements to monitoring methods, including more stringent monitoring standards for discharge, first time volumetric limitations on discharge of drilling muds and cuttings, required use of aqueous-based drilling muds, broad toxicity testing on vertebrate, invertebrate, and plant species, and several long-term analyses of discharge effects. Therefore, the new NPDES permit offers the prospect for improved water quality and greater protection of marine resources.

## **2. Government Facilities**

The Commission's review of government activities on federal lands continues to increase. Since 1997, the Commission has reviewed 1,450 submittals involving a wide range of federal activities and coastal issues under the federal consistency provisions of the federal CZMA. The Commission during this period participated in managing impacts from radar facilities in Port Hueneme and developing management strategies for marine acoustics. In addition, the staff also participated in regional task forces to address the disposal of dredged sediment and in efforts by OCRM to revise federal consistency regulations.

### **Conclusion**

#### **1. Data Gaps/Program Needs**

##### **Energy**

The Commission staff continues, as funding allows, to participate in multi-agency Joint Review Panels for the development of EIR/S documents for major projects and is also an active participant on the Multi-Agency Coordination Committee ("MACC") for the remediation of a large oil spill at the 2,700 acre site of the former Unocal Guadalupe oil field. Improving coordination with other federal, state and local government agencies and involving the public early the in evaluation of complex and controversial projects remain a priority need.

Adequate measures or funding to monitor implementation of the mitigation measures contained in permits and consistency certifications is needed. There is a need to develop ways to "close the loop" between applying special conditions to projects and ensuring that these conditions actually function to alleviate adverse environmental impacts. Better mitigation monitoring, reporting, record keeping and correction of unsuccessful mitigation measures could enhance the Commission's program.

In some cases, the Commission has imposed independent monitoring as a means of ensuring objective performance standard evaluations and application of remedial measures, if necessary. Substantial evidence suggests that independent monitoring, if applied routinely, would enhance permit compliance and better ensure positive results for the benefit of affected coastal resources. The Commission should evaluate further whether independent on-site monitors would enhance permit compliance. There is a need to determine options for placing the financial burden of independent monitoring on the beneficiaries of coastal development permits (i.e., applicants).

Another major program need is to close the scientific data gaps on the question of whether converting offshore oil and gas platforms to artificial reefs (known commonly as "rigs-to-reefs") provides habitat and marine resource benefits. Some of California's oil and gas platforms are near the end of their productive lives and will be proposed for abandonment by platform operators in the near future. The question of whether a platform should be converted to a reef in lieu of removal is highly controversial and raises significant resource concerns. In 1997, the MMS and California



State Lands Commission sponsored a workshop on platform decommissioning. That workshop identified a number of technical and biological concerns about developing a rigs-to-reef program in California. There is a need to determine if options are available for placing the financial burden on the platform operators to fund independent studies to address these data gaps.

### Government Facilities

The major program need for government facilities is to continue working with the OCRM and other federal agencies to improve the federal consistency process in order to increase efficiencies and address emerging issues. These needs include, for example, implementing the new federal consistency regulations, implementing and improving the process for phased review of existing and future proposed facilities, and improving coordination mechanisms.

#### 2. Priority:

Last Assessment  
**LOW X**

This Assessment  
**LOW X**

---

## AQUACULTURE

---

### Section 309 Programmatic Objective

- I. *Enhance existing procedures and long range planning processes for considering the siting of public and private marine aquaculture facilities in the coastal zone.*
- II. *Improve program policies and standards which affect aquaculture activities and uses so as to facilitate siting while ensuring the protection of coastal resources and waters.*

### Management Characterization

California state laws define aquaculture as a type of farming involving the propagation, cultivation, maintenance, and harvesting of aquatic plants and animals for human consumption or bait. Under this definition, aquaculture does not include the propagation, cultivation, or maintenance of aquatic plants or animals for the purpose of habitat restoration or enhancement (e.g., salmon hatcheries constructed as mitigation for water diversion projects).

The majority of California's aquaculture development is comprised of commercial farming of freshwater fish, and is sited outside of the coastal zone. Within the coastal zone, the major aquaculture activities include, in order of importance, commercial farming of oysters, abalone, and mussels. To a lesser degree, clams and scallops are farmed. These activities all involve both onshore and offshore components (e.g., abalone farms circulate seawater through tanks located onshore, and oyster farming involves cultivation on artificial substrates placed in coastal waters with onshore support facilities).

The state's ability to address aquaculture through regulations, state and local statutes, and guidelines, et cetera is as follows:



- The California Department of Fish and Game (CDFG) is charged with promoting aquaculture in the state and may grant leases on state tide and submerged lands for the purpose of commercial aquaculture development.
- Aquaculture projects are regulated under the California Environmental Quality Act (CEQA). In most cases, the CDFG serves as “lead agency” for marine aquaculture projects under the CEQA.
- The offshore components of aquaculture projects are regulated under the California Coastal Act. Depending on the location, the onshore components of an aquaculture project in the coastal zone are regulated under either the Coastal Act or a local government’s certified local coastal program.
- The California Department of Health Services regulates the harvesting of bivalve shellfish for human consumption under the Health and Safety Code.
- The California Office of Spill Prevention and Response (OSPR) is responsible for investigating possible seafood contamination if alternative oil spill response technologies are used in the vicinity of aquaculture facilities.

Environmental concerns associated with aquaculture development in California include:

- the effects of wastewater discharge from aquaculture facilities to marine water quality;
- introduction of pathogens into the marine environment;
- introduction of exotic species into the marine environment;
- adverse effects to the genetic quality of native species;
- habitat damage (e.g., damage to eel grass beds resulting from construction activities);
- degradation of the scenic quality of the coast;
- marine debris originating from improperly maintained or abandoned aquaculture projects that may litter beaches and harm marine life due to ingestion or entanglement;
- development projects that may degrade marine water quality on which aquaculture is dependent (e.g. livestock and grazing); and
- oil dispersants, and *in-situ* burning of spilled oil, are two methods of alternative oil spill response technology that have potential impacts on nearshore aquaculture resources. While recent studies indicate that the actual dispersants to be used are considered less toxic than those tested years ago, the use of dispersants may mix oil into the water column, where the oil itself becomes available for uptake by marine invertebrates and fish and may provide a unpalatable odor or taste. *In-situ* burning of oil could create residual oil-bearing ash that might settle onto and be driven below the water’s surface, becoming available for uptake by water-column or benthic aquatic species and perhaps contaminating the product so that it is not considered marketable.
- Abalone mariculture facilities harvest kelp to feed abalone, and a recent increase in the number of cultured abalone operations significantly increased the amount of kelp harvested. Studies that examine the impacts of sustained kelp harvesting are inconclusive as to whether intensive and repetitive harvesting in a confined kelp area causes significant harm to kelp canopy or kelp habitat.<sup>6</sup> The Commission has expressed interest in working with CDFG to improve data and cooperation on this issue.<sup>7</sup>

---

<sup>6</sup> Monterey Bay National Marine Sanctuary Kelp Management Report, October 3, 2000.

<sup>7</sup> Letter from the California Coastal Commission to CDFG, April 15, 1999, regarding kelp canopy removal practices.





The production of bivalve shellfish (filter feeders) is dependent on high water quality in order to protect public health. Thus, the effects of point source and nonpoint source discharges to the quality of coastal waters is an important concern for the aquaculture industry.

Aquaculture projects in the California coastal zone may conflict with the following uses:

- public access to and along the shoreline;
- public recreational activities (e.g., sea kayaking, recreational fishing, diving, ecotourism);
- commercial fishing (when placed within working harbors and marinas); and
- navigation.

### **Conclusion**

*1. Major gaps or impediments in addressing the programmatic objectives for this new enhancement area.*

Existing state and local regulations under the Fish and Game Code, the California Environmental Quality Act, the California Coastal Act, certified local coastal programs, and the California Health and Safety Code, can adequately address environmental concerns and use conflicts associated with aquaculture in the coastal zone. However, improved coordination between the regulating agencies would further the above stated programmatic objectives. For example, in one instance, the CDFG granted an aquaculture lease for a project that raises significant concerns under the Health and Safety Code and the Coastal Act. Better communication between the agencies and improved coordination of the permitting processes could reduce such conflicts. One such improvement could be realized through the development of a procedural guidance document which compiles and analyzes the existing permits and conditions for aquaculture facilities that the Commission and/or local governments have acted on to date. This document would help in analysis of future projects, particularly if interest in aquaculture facilities along the coast increases.

*Priority:*

<u>Last Assessment</u>	<u>This Assessment</u>
<b>Low <u>X</u></b>	<b>Low <u>X</u></b>

The effects of aquaculture to coastal and marine resources, public access and recreation, and public health are all adequately addressed under existing state and local laws. Although the industry would be better served through improved regulatory coordination, aquaculture development is a minor activity in comparison with other types of coastal zone development in California. For these reasons, aquaculture is considered a low priority in the view of the state's coastal program.

