CALIFORNIA FISH AND WILDLIFE
STRATEGIC VISION PROJECT

PUBLIC COMMENTS FOR REVIEW

Comments Through December 4, 2011

From: earl cummings
Sent: Tuesday, November 08, 2011 2:18 PM
To: Melissa Miller-Henson
Subject: Current Visions/Common Themes

I was glad I attended the joint meeting today and picked up the Summary of Potential Draft Interim Recommendations. I'm glad I listened to the BRCC and SAG people in attendance discuss mutually agreeable editorial tweaks, and regret not having a chance to suggest a change I think would have been helpful.

I support the Current Vision bullet point urging management of natural resources of all kinds on an ecosystem basis, but there will be tension between that and the academic and professional training and development of many Fish and Game employees and almost all Commission appointees. There is a lot of difference between training in Fish and Game Management, which is predominately single species oriented, and ecosystem science which looks at entire plant and animal community interaction. I taught wildlife management and worked as a DFG Wildlife Biologist, but had MS training in Ecology. For many species under DFG oversight, the best available science is driven by the fish or game management emphasis, so there will need to be a significant effort to expand professional training and development opportunities to emphasize multi-species and multi-habitat approaches. At the DFG wildlife investigations lab where I first worked, there was substantial interaction and exchange with academia. I'll defer to some others on your panels to say whether there is much interaction between the DFG and UC or the State University these days.

I regret only being able to attend the morning session, and regret not being able to more actively participate as a member of the public, but you have a short deadline and a lot to produce, so I understand why my input wasn't convenient to hear in the midst of the meeting. I hope you can run this by the BRCC and SAG for their consideration.

I'd respectfully suggest that somewhere in the overarching goals and objectives that there be a link between the ongoing training and development of DFG staff and the multi-species/ecosystem oriented management theme. At this time, from my experience, there's a disconnect.

Sent via BlackBerry by AT&T

From: Dave Simpson
Sent: Tuesday, November 08, 2011 3:17 PM
To: Strategic Vision
Subject: Comments

With respect to the work that you're currently involved in---a strategic vision for the Ca dept. of Fish & Game, I would like to share my thoughts.

A strategic plan must be one that will enhance the Dept's. capabilities over the long term. The current "system" that changes leadership too frequently does not support this concept. The upshot is that good ideas from the previous administration are shuffled to a lower priority when a new one comes on the scene. Therefore, a plan must be put in place that will keep worthwhile programs going thru to fruition.

The other problem that I see is the one that allows an avowed anti-hunting, animal rights organization---namely the humane society---to be a part of the department's organization is an abomination & must be negated immediately!!

Thx for listening.

David A. Simpson,
Moreno Valley, CA

CALIFORNIA INVASIVE PLANT COUNCIL
Doug Johnson comments:

SUBMITTED
11/8/11
BRCC/SAGMTG

① "fish and wildlife" is not good shorthand for "fish, wildlife and plants." Just "Wildlife" is better.

② Organization into "Present" and "Future" seems off, and implies none of these things are happening now. Perhaps "Existing" and "Additional"?

③ Intro to Value section and Theme section are very similar. Suggest change in Theme intro from "the manner in which..." to "underlying principles and practices."

ASSOCIATION OF CA WATER AGENCIES BRCC/SAG MTG

DAVE: TWO COMMENTS I WOULD OFFER UP (UNFORTUNATELY I HAVE ANOTHER COMMITMENT)

1. I WOULD REVISIT THE COMMISSION'S MISSION STATEMENT AS ~~SE~~ STRIKE EVERYTHING AFTER "... SUSTAINABILITY OF CALIFORNIA'S FISH AND WILDLIFE RESOURCES."

   REASONING:

   1. MISSION STATEMENT SHOULD BE SUCCINCT, NOT INTO THE "WEEDS".
   2. ACTIONS TO BE TAKEN (BULLETS) TO SUPPORT THE MISSION STATEMENT SHOULD ~~TAKEN~~ UP ELSEWHERE IN STRATEGIC VISION/PLAN.
   3. IN FACT EACH OF THE BULLETS ARE ADDRESSED, AT LEAST IN PART, IN THE "POTENTIAL OVERARCHING GOALS AND OBJECTIVES" pp 3-5.

2. I WOULD ENCOURAGE THE SAG/BRCC SET ASIDE ADEQUATE TO DISCUSS THE CONCEPT OF "SCIENCE". IT IS ARGUABLY THE MOST CRITICAL CORNERSTONE TO A SUCCESSFUL DFG/CMMN STRATEGIC VISION. THE WORD "SCIENCE" STANDING ALONE COULD MOVE YOU AWAY FROM "OBJECTIVITY" TOWARDS A MORE SUBJECTIVE APPROACH. ~~DFG/CMMN~~ ~~BEEN~~ THERE IS VALUE AND PRECEEDANCE ESTABLISHED BY THE TERM "BEST AVAILABLE SCIENCE".

From: Rick Copeland
Sent: Tuesday, October 25, 2011 6:28 PM
To: Melissa Miller-Henson
Subject: F&W BRTF mtg for 10/26

I will probably be unable to personally attend the mtg. tomorrow and hope to be able to dial in somewhere after 1:30.

My notes/input are as follows based on the time stamps of the documents included in your Oct 25 post.

I missed the Oct 18 and 19 meetings completely in favor of attending the F&G Commission Meeting in Monterey re: other issues.

Thank you for the notes.

RE: the minutes from **Oct 18 mtg.**:
I agree that habitat management is part of "the mission". FYI: in this process it must be recognized that "man" is the manager. We (resource agencies and others) have to take responsibility for the resources, i.e. wildlife and habitats and yes, of course the human users.

Partnerships
partnerships are important. Intergovernmental alignment and coordination (more efficient processes) should be a vision mission goal.

re: couple of overlapping topics stated by BRTF folks: "partnerships cost time", "science based" and data source and transparency, were a mixed read from this meeting.

My summary..
Good science? Bottom line should be "biological science" over "political or social science".
man is the manager...
"best available science" does not "by in" decision makers as that can be skewed by the inability or lack of desire to move forward on prudent science based matters.. example a doe hunt.
Transparency re "science" or "best available science", should allow others "peers" to repeat the test and refute or conclude likewise how the "best available science based" process occurred.
And by all means use other NGO's or science communities for input. The cost will be less in the end.

Enforcement/Compliance
There was a note regarding non-governmental organizations partnering with enforcement. Why not include? Many often have a higher stake in enforcement.

RE: the minutes from the **Oct 19 mtg.**:
Broadly Informed and Transparent Decision-making:

Re: "Best available science" ok language...but show how and what basis the science was acquired...i.e. "transparency".

A question re: Traditional Ecological Knowledge. Four or five generations of a ranching family is easily sufficient for "traditional ecological knowledge".
My input: note that ranchers are typically tied directly to specific parcels where as the referred to traditional knowledge of tribal interests are often more of an umbrella knowledge. Thus long time ranch knowledge is probably more "hands on" targeted. Micro vs macro.

Mandates
concur with mandate review vs mission.
I for one feel that the F&W Vision should be able to have some direction for the legislature, Huffman or those that enact legislation to bring forward and update or remove timed out or contradictory mandates. There are numerous examples in the F&G Code that are contradictory.

Can't live with goals:
I agree...are resource management in Calif should be bio/physical science driven not social science.
Biological should be number 1 in the goal. leave politics (and related emotions) on the sidelines.

Summary: Managing resources based on Biological Science <u>not Political</u>, using the "best available science" open to peer review and using complete transparency whether science input is gathered from gov't resource agencies or otherwise.

I will review the PDF from each group prior to tomorrow .. on borrowed time..

Respectfully submitted

Rick Copeland
Wilderness Unlimited

GEORGE L. OSBORN
LOBBYIST

PUBLIC COMMENT
SUBMITTED 10/25/11
TO SAG GM WG

September 7, 2011

The Honorable Edmund G. Brown Jr.
Governor of California
State Capitol Building
Sacramento, CA 95814

Dear Governor Brown:

On behalf of my clients, the California Fish and Game Wardens' Association, we are disappointed that we did not gain support for the attached legislative language at the close of the current legislative session. We do, however, understand your staff's reluctance to support a last-minute gut-and-amend bill in this fast and furious legislative process.

On the positive side, we are very pleased that your staff would consider the goal of the legislation to be good public policy. We agree. To that end, we respectfully request that you consider the attached language for inclusion in your pension reform package as you develop it in the coming days. Certainly, the cost savings to California taxpayers will amount to many millions of dollars over time should the civilian, non-sworn members of Bargaining Unit 7 be absorbed by other "non-safety" bargaining units.

We believe that the public will view such a decision as a real step forward by you to address concerns regarding public employee benefits and retirement pensions.

Further, we believe that the legislation, if enacted, will assist California in increasing the recruitment and retention of Fish and Game Wardens thereby increasing protection of California's priceless natural resources. After all, "No wardens, no wildlife."

As always, we stand ready to assist you in any way we can and thank you for considering our views.

Sincerely,

George L. Osborn

cc: David Lanier, Chief Deputy Legislative Secretary
Marty Morgenstern, Secretary, Labor and Workforce Agency
The Honorable John Laird, Secretary, Natural Resources Agency
Anne Gust Brown, Special Counsel to the Governor
Jim Kellogg, President, California Fish and Game Commission
Carol Baker, Project Manager, FWSVP

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THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 3521.7 of the Government Code is amended to read:

3521.7. (a) The board may, in accordance with reasonable standards, designate positions or classes of positions ~~which~~ that have duties consisting primarily of the enforcement of state laws. Employees so designated shall not be denied the right to be in a unit composed solely of ~~such~~ those employees.

(b) State employee peace officers designated in Chapter 4.5 (commencing with Section 830) of Title 3 of Part 2 of the Penal Code who are employed in that capacity by one of the following state entities have the right to be in a unit composed solely of those employees:

(1) Department of Alcoholic Beverage Control.

(2) California Emergency Management Agency.

(3) California Exposition and State Fair Police Department.

(4) California Horse Racing Board.

(5) Dental Board of California.

(6) Bureau of Security and Investigative Services.

(7) Medical Board of California.

(8) Department of Corporations.

(9) State Department of Developmental Services.

(10) Employment Development Department.

(11) Department of Fish and Game, as a fish and game warden.

(12) State Department of Public Health, in the Food and Drug Branch.

(13) State Department of Health Care Services.

(14) Department of Industrial Relations.

(15) Department of Insurance, in the fraud division.

(16) Department of Justice.

(17) State Department of Mental Health.

(18) Department of Motor Vehicles.

(19) Department of Parks and Recreation.

(20) State Department of Social Services.

(21) Department of Toxic Substances Control.

(22) Franchise Tax Board.

(23) Secretary of State, in its Fraud Investigation Unit.

(24) Controller.

(25) California State Lottery.

SEC. 2. Section 3521.8 is added to the Government Code, to read:

3521.8. An employee of a state entity listed in subdivision (b) of Section 3521.7 who is not employed by the entity in the capacity of a peace officer designated in Chapter 4.5 (commencing with Section 830) of Title 3 of Part 2 of the Penal Code shall be transferred from Bargaining Unit 7 to Bargaining Unit 1, 4, 12, 13, 14, 15, or 19, as appropriate for the employee's job classification.

September 15, 2011

The Honorable Edmund G. Brown Jr.
Governor of California
State Capitol Building
Sacramento, CA 95814

Dear Governor Brown:

The mission of the California Game Wardens Foundation is to assist our Game Wardens in every way possible. They are a dedicated group of men and women who are under-paid, over-worked and poorly represented by their current union arrangement. The Board of Directors of the Foundation supports any legislation which might allow them a better chance at fair representation in negotiations.

We believe the attached Legislation, as part of your pending pension reform proposal, is a good first step in increasing and retaining the number of Wardens needed to protect California's Natural resources. We can have all the laws on the books, but without enforcement, these laws are ineffective.

Thank you for your consideration.

Respectfully yours,

Ellen Baker
Gary Bechtel
Ryan Broddrick
Jack Edwards
Howard Ellman
R. Judd Hanna
Steve McCormick
Warren E. "Ned" Spieker, Jr.
Peter D. Stent

/eb

California Game Wardens Foundation
Headquarters – 2180 Sand Hill Road – Suite 100 – Menlo Park, CA 94025
www.theGWF.org

California State Park Peace Officers Association
CSPPOA • PO Box 11 • Coloma CA 95613 • www.csppoa.org

September 18, 2011

The Honorable Jerry Brown, Governor
State of California
State Capitol, First Floor
Sacramento, CA 95814

RE: Removal of Non-Sworn Peace Officers from Bargaining Unit 7

Dear Governor Brown,

The California State Park Peace Officers Association (CSPPOA) respectfully requests that you include the attached legislative language in the pending pension reform proposal.

The intent of the attached language is to remove the *civilian non-sworn members* from Bargaining Unit 7 in order to give the sworn officers such as the California State Park Peace Officers (SPPO) more control over their own bargaining unit.

CSPPOA is made up of Rangers and Lifeguards who patrol the 278 CA State Parks. CSPPOA believes in order to recruit and retain high quality Rangers and Lifeguards, these changes need to be made to BU 7.

Thank you for your consideration,

Sincerely,

Scott Liske

Scott Liske, President
California State Park peace Officers Association

OCEANA | Protecting The World's Oceans

99 Pacific Street, Suite 155C
Monterey, CA 93940

831.643.9266
www.oceana.org

September 27, 2011

The Honorable Edmund Brown
Governor of California
State Capitol Building, Suite 1173
Sacramento, CA 95814

RE: Game Warden Proposal - **SUPPORT**

Dear Governor Brown:

Oceana believes that the effective enforcement of fish and wildlife laws is essential for the protection of both the ecology and economy of the State of California. The California Fish and Game Wardens' Association pension reform request should effectively result in more robust enforcement of these incredibly important laws. Oceana, as both a sponsor and supporter of legislation to promote ocean conservation, supports this request insofar as it should have positive benefits for conservation.

We appreciate your leadership on protecting California's natural heritage and your attention to this important issue. Please do not hesitate to contact us if you have any questions.

Sincerely,

Geoffrey Shester, Ph.D.
California Program Director

cc. The Honorable John Laird, Secretary, Natural Resources Agency
Mr. Jim Kellogg, Chair and Commissioner, Fish and Game Commission
Ms. Nancy Foley, Enforcement Chief, Department of Fish and Game
Senator Fran Pavley, Chair, Senate Natural Resources Committee
Assm. Jared Huffman, Chair, Assembly Water, Parks & Wildlife Committee

Coastside Fishing Club
666 Brighton Road, Pacifica, CA 94044

October 11, 2011

The Honorable Edmund G. Brown Jr.
Governor of California
State Capitol Building
Sacramento, CA 95814

Subject: Collective bargaining: peace officers.

Dear Governor Brown:

The Coastside Fishing Club respectfully requests that you consider the attached language for inclusion in your pension reform package as it is developed in the coming days. We support a strong enforcement presence in our marine and terrestrial areas – the proposed language will assist California in increasing the recruitment and retention of Fish and Game Wardens thereby increasing protection of California's priceless natural resources. We believe the general public, in addition to our members – recreational fishermen, will view the inclusion as a real step forward in addressing concerns regarding public employee benefits and retirement pensions.

The Coastside Fishing Club is an all-volunteer CA non-profit with 13,000 members, dedicated to enhancing the recreational fishing experience for all Californians. We hope you will consider our request.

Dan Wolford, Science Director

D L Wolford

Coastside Fishing Club

Attachment

cc: David Lanier, Chief Deputy Legislative Secretary
Marty Morgenstern, Secretary, Labor and Workforce Agency
The Honorable John Laird, Secretary, Natural Resources Agency
Anne Gust Brown, Special Counsel to the Governor
Jim Kellogg, President, California Fish and Game Commission
Carol Baker, Project Manager, FWSVP

CALIFORNIA
OUTDOOR
HERITAGE
ALLIANCE

"...promoting wildlife conservation and protecting our hunting heritage."

1600 Sacramento Inn Way · Suite 232 · Sacramento, CA 95815
916.643.4607 *phone* · 916.643.4682 *fax* · www.outdoorheritage.org

September 14, 2011

The Honorable Jerry Brown, Governor
State of California
State Capitol, First Floor
Sacramento, CA 95814

RE: Removal of Civilian, Non-Sworn Peace Officers from Bargaining Unit 7

Dear Governor Brown:

The California Outdoor Heritage Alliance (COHA) respectfully requests that you include the attached legislative language in the pending pension reform proposal.

COHA is a nonprofit organization dedicated to the protection of our hunting heritage and the promotion of wildlife conservation, and includes over 40 member organizations representing state, local and national conservation interests.

The intent of the attached language is to remove civilian peace officers from Bargaining Unit 7 in order to give California Game Wardens and other sworn officers more control over their own bargaining unit.

COHA believes this important change will ultimately provide for better recruitment and retention of California Game Wardens, which is desperately needed due to the current very low number of wardens statewide. Unfortunately, California continues to suffer from one of the lowest number of wardens per capita of any state. In addition, its vast acreage of wildlands, often difficult terrain and miles of coastline make fish and game enforcement efforts particularly challenging here.

The lack of sufficient number of wardens in the field has not only contributed to increased poaching and pollution in recent years, but also limited Fish and Game's ability to educate hunters, fishermen and the general public about our fish and game resources, as well as to provide other important outreach efforts.

Thank you for your consideration.

Sincerely,

Mark Hennelly, Vice President
California Outdoor Heritage Alliance

THE HUMANE SOCIETY
OF THE UNITED STATES

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September 14, 2011

Governor Edmund G. Brown
State Capitol
Sacramento, CA 95814

RE: Game Warden proposal

Dear Governor Brown,

On behalf of the Humane Society of the United States and our nearly 1.3 million members and supporters in California, I am writing to urge you to support a request by the California Fish and Game Wardens' Association (CFGWA) to include the attached legislative language in your pension reform proposal.

Game wardens are charged with the incredibly important task of overseeing California's wildlife and enforcing among other issues hunting and fishing regulations, but their resources to do so are stretched incredibly thin. In fact, the state of California has the lowest ratio of game wardens to population of any state or province in all of North America. Shockingly, the number of wardens in California, which number fewer than 200, has remained virtually unchanged since the 1950s.

Starting state game wardens are paid approximately 20 percent less than starting state highway patrol officers despite having more stringent education requirements. We agree with CFGWA that removing civilian, non-sworn peace officers from Bargaining Unit 7 will enhance recruitment and retention of wardens..

Poaching is a $100 million illicit industry in California and state game wardens are often forced to let leads go uninvestigated due to unmanageable caseloads. As the California population grows, poaching becomes an increasingly lucrative and dangerous problem. The agency is unable to respond to two-thirds of the calls to the state's tip line because of staffing shortages. Last year we provided a grant of $5,000 to help with the veterinary care for some of the dogs who work alongside wardens to detect and apprehend poachers – because the wardens were trying to cover such costs out of their own pockets due to budget shortfalls.

California state game wardens deserve bargaining options that are afforded to other state law enforcement personnel and we at The Humane Society of the United States implore you to grant their request.

Thank you for your consideration.

Sincerely,

Jennifer Fearing
California Senior State Director

Attachment

cc: The Honorable John Laird, Secretary, Natural Resources Agency
Mr. Jim Kellogg, Chair and Commissioner, Fish and Game Commission
Nancy Foley, Enforcement Chief, Department of Fish and Game
Senator Fran Pavley, Chair, Senate Natural Resources Committee
Assm. Jared Huffman, Chair, Assembly Water, Parks & Wildlife Committee

Co-Chairs
Ms. Judy Ki
Ret. CA Public School Teacher
Mr. James T. Lau
Fmr. Exec. Dir. CLCV Education Fund*

ASIAN PACIFIC AMERICAN OCEAN HARMONY ALLIANCE (APAOHA)

September 7, 2011

Hon. Jerry Brown
Governor of California
State Capitol, 1st Floor
Sacramento, CA 95814

Dear Governor Brown,

The Asian Pacific American Ocean Harmony Alliance (APAOHA) is concerned about the recruitment and retention of California Fish and Game Wardens who are a charged with protecting the state's natural resources and wildlife.

As such, we urge you to support the proposal to remove civilian, non-sworn peace officers from Bargaining Unit 7 and put sworn officers back in charge of their bargaining unit and allow for enhanced recruitment and retention of California's Fish and Game Wardens. While this will not immediately solve the warden shortage, it is a critical first step in that process.

The Alliance was established to represent the Asian Pacific American (APA) voice on the issue of ocean conservation and sea life preservation. Research shows that APAs strongly support environmental conservation.

Nearly three in four Asian American voters (74%) say that environmental issues are *extremely* or *very important* to them *personally*. In comparison, two in three voters (67%) statewide indicate environmental issues are extremely or very personally important.

More than four in five Asian Americans (83%) describe themselves as environmentalists, outnumbering voters statewide by a three-to-two margin. Specifically, a narrow majority (52%) of all California voters consider themselves environmentalists.

Thank you for taking the time to consider our support for this proposal.

Sincerely,

Judy Ki
Co-Chair

James Lau
Co-Chair

APAOHA
P.O. Box 188858, Sacramento, California, 95818
www.apaoha.org

From: kirk vyverberg
Sent: Wednesday, October 19, 2011 2:24 PM
To: Melissa Miller-Henson
Subject: DFG Advocates-Public Comment-BRCC-Kirk Vyverberg-10-19

October 19, 2011

Joint Meeting of the Blue Ribbon Citizen Commission
and the Stakeholder Advisory Group,
California Wildlife Strategic Vision Project

Attn: Melissa Miller-Henson
Melissa@resources.ca.gov

Public Comment: Kirk Vyverberg, citizen

As president of a strategic communications firm that has served over thirty California companies in the development and implementation of their strategies for constructive change, I submit these recommendations as qualified for your considerations. As a member of a family that has over twenty five years of licensed professional service to the Department of Parks, the State Water Board, and the Department of Fish & Game, I offer our involvement and perspective. And, as a citizen who values the public trust mission of the Natural Resources Agency, I thank the Commission, the Stakeholders, and the Vision staff for their work on this project and their ongoing efforts to make this endeavor meaningful and significant.

To that end, I offer the following recommendation:

- **Utilize DFG Program Managers as advocates for staff recommendations to the Advisory Group, providing an integration of perspectives through active, full participation.**

Statement of Justification

Having attended every work group meeting of the weeks of September 06 and 20, I have witnessed the value of the primary Advisory Group Ground Rules *"intended to foster and reinforce constructive interaction, deliberation, communication, trust, creative thinking, and collaborative problem-solving – based on active, full participation and respectful interaction"*. Certainly, the wisdom contained therein should be applied to the integration of the DFG input to the Vision process.

During my participation, I submitted Public Comments to each of the Working Groups both verbally and in writing – without, however, the opportunity to take questions or interact. The results of that limited process were illuminating. Two groups posted the public comments and recommendations as if they were parallel work products to be considered, rebutted, or incorporated at some later date. Two groups did not acknowledge the Public Comments in any manner. The remaining two groups incorporated the recommendations into their work product content or verbatim. It is apparent from this experience that the issues addressed are of sufficient complexity that they require the constructive deliberation that comes from interactive presentation and advocacy.

Furthermore, the Stakeholder product has evolved over time in content, format, and language. Now, members are presenting and debating ideas within the current format of their product in an effort to advance the process. Ideas that are not presented in that format or in relationship to the content of the existing work draft will meet resistance. An Advocate can prepare and present the new ideas in the appropriate format for incorporation and in relationship to existing relevant content leading to support or constructive debate. Issues and challenges will be seen differently from the inside and outside perspectives – from both the point-of-view of the regulator and the regulated, or the project proponent and permit or grant reviewer. Reconciling these perspectives is required in order to improve meeting our resource management challenges. Though this may be difficult, the Vision process provides a significant opportunity we should not waste.

Finally, the solutions to many individual issues and challenges raised by either the Stakeholders or DFG staff are multifaceted, requiring consideration by more than one Work Group. For example, to achieve the goal of facilitated permitting may include solutions such as the development of compliance guidance [considered in the Regulatory or Communication group], the addition of dedicated, sponsored reviewers or fee adjustments [debated in Permitting, Finance, Governance], or the development of master agreements [from the Regulatory or Resources group]. DFG Program managers in the role of Vision advocates have the knowledge required to integrate a single recommendation into the framework of multiple relevant Work Groups.

Though the logistics may seem challenging, the benefits should out weigh the time and work required. Following the 3 Minute Rule - for Presentation, plus Q&A, plus Deliberation that concludes with a vote to incorporate, reject, or assign for reconciliation – each Work Group should be able to debate up to 20 ideas in a three hour session. This would result in over 100 recommendations debated among the various groups in a single week. DFG Program Managers could submit their top two recommendations for each of the six Work Groups. Advocates would have to read the DFG recommendations, select and prioritize those relevant to their programs, format them for incorporation into the current work product, provide a statement of justification - submitting two per Work Group or twelve in total. From these, the Facilitator or Chair could select and develop the week's agenda.

As stated in Assemblyman Huffman's opening letter to the Executive Committee on June 28, the final product should recognize past barriers to strategic change and provide implementation strategies for the future. The DFG advocates should be able to identify barriers and provide the organizational buy-in required to support future change management. Who better is there than these managers to communicate the value of the new Vision to their programs? As called for in Huffman's opening remarks and echoed in the Joint letter from Five Conservation Stakeholders of July 15, the quality and utility of this process will largely depend on the successful integration of the Stakeholder and DFG visions. Utilizing DFG Advocates to provide active, full review of informed, prioritized recommendations is the best way to integrate and reconcile the various perspectives represented in this valuable process and maximize the successful implementation of our new Vision.

Final 10-19-2011 BCC/SAG Comment

From: Bob Bertelli
Sent: Thursday, October 20, 2011 7:20 AM
To: Melissa Miller-Henson
Subject: Science

Hi Melissa, I have attached a short article from The Journal of Theoretics, that frames the issue of misunderstanding what science is, and gives a nice explanation and working definition of science.

Hope this of some help.

Bob

Journal of Theoretics Vol.1-3

Aug/Sept 1999 Editorial

What is Science?

It continues to amaze me how many "educated" people do not understand what Science* is or what is meant by the term "scientific method." The statements of Nobel Prize physicist Percy W. Bridgman[1] shows that such ignorance shows no regard for academic stature when he states, "No working scientist, when he plans an experiment in the laboratory, asks himself whether he is being properly scientific, nor is he interested in whatever method he may be using *as method*." What arrogance![2]

One of the best descriptions and explanations of the current concept of scientific method is interestingly found in the Appendix E of Frank Wolfs' website .[3]

1. Observation and description of a phenomenon or group of phenomena.
2. Formulation of a hypothesis to explain the phenomena. In physics, the hypothesis often takes the form of a causal mechanism or a mathematical relation.
3. Use of the hypothesis to predict the existence of other phenomena, or to predict quantitatively the results of new observations.
4. Performance of experimental tests of the predictions by several independent experimenters and properly performed experiments.

But in order to realize whether this is a valid concept or not, we need to understand what Science really is. Here is a typical dictionary definition of Science: "The observation, identification, description, experimental investigation [scientific method], and theoretical explanation of phenomena. Such activities restricted to a class of natural phenomena. Such activities applied to an object of inquiry or study."[4]

Science on the other hand is an interesting definition in that it previously has applied to those fields of study which utilize the scientific method. For physics and chemistry, this is easy, but when we get into archeology, psychology, geology, environmental studies, and so on, the use of scientific methodology becomes less applicable but yet aren't these still Science? What about archeology where even though one can not perform repeatable experiments we can yet validate hypotheses?

Let's say that I am an archeologist and that I hypothesize that an ancient culture "X" existed based upon a piece of pottery that I had found and I further hypothesize various characteristics of this culture. Later it is found that I was correct in my hypothesis through continued validation from other findings. I then hypothesize that any culture that can make such pottery will have a high lead content in their remains. Again this is found to be true. These hypotheses have now become theories as they have been verified yet they did not follow the definition of scientific method nor could they. This is Science.

Some may say that in archeology, we use carbon-14 dating (or similar process) which does follow the scientific method. Though archeology does utilize some aspects of other sciences that do follow the scientific method, this is archeology's use of physics. It is the physics that is following the scientific method in this case, not archeology.

The scientific method is fine for experimentation but it is inadequate in determining what is Science. In the past if a discipline could not be subject to the scientific method, it was not Science. Therefore, I would like to propose that **the scientific method should only be applied to experimentation when appropriate and not be used in the determination of what is or is not science, nor should it have any application in defining what is a hypothesis, theory, fact, or law.****

In terms of the definition of what is or is not a Science, we need to find a definition that is timeless and few could argue

against. One of the best way to understand the current definition of something is to look at its history (ignorance of the past will lead to mistakes of the future[5]) but I will leave that for a book on the subject because even though it is engrossing reading, it can get lengthy. I would like to propose that we define **Science as the "the field of study which attempts to describe and understand the nature of the universe in whole or part."*** Though simple, it is an encompassing and elegant definition, as we will see.

Therefore those fields of study which attempt to describe and understand the nature of the universe on a "whole" scale such as physics and chemistry would fit our definition but so would those fields which study it in "part" such as biology whose field has been limited to only those life forms on Earth. Archeology attempts to describe and understand the fossil and archeological record (a part of the universe) and this understanding includes what its function, purpose, state of existence, etc. was. The archeological example previously given also shows how a hypothesis, theory, and fact can develop in the field of archeology...all without using the scientific method.

Why do I think that it is important that we all be on the same page in our definition of Science?

- I am a stickler for being exact in our communications because if we do not have the same definitions then we can not communicate accurately and if we can not accurately communicate then we can not progress.
- By defining Science accurately, it is easy to see that scientific theory, fact, and law can be developed and verified totally outside the walls of the academic experimentalist and the scientific method.
- By knowing what academic disciplines are Sciences, we can better approach or attempt to describe and the universe in a more organized manner thereby maximizing the progress that mankind can make in developing his knowledge base.
- It shows us that hypothesis and theories are not the sole purview of the experimentalist with his/her scientific method.
- It is only through the field of Theoretics that we can get a logical overview of Science from which we can all get on the same page and allow Science to progress in all of its facets.

I only hope that all will become involved in Theoretics so that we can all be on the same page in our definitions, coherent and logical in our arguments and theory development, and rather than being petty, look at what is the best for Science and Mankind.

JP Siepmann, Editor <archive@journaloftheoretics.com>

Journal of Theoretics

* Definitions

(Every article, book, paper, etc. should always include definitions as well as a bibliography or reference section.)

describe: to understand the nature of something in the universe and define it in a manner that allows it to be studied and communicated.

fact: a theory that has been validated close to certainty.

hypothesis: a tentative or working assumption which scientific study has yet to validate.

For instance, I can make the hypothesis that fire is hot. I put my hand into a fire and find it is hot. Now it is a theory. If it is validated by many to the point of certainty then it is a fact. Technically, there is nothing that is 100% certain. For instance, I could be existing in a dream world where fire is hot while in my real world fire is cold. Though this is highly unlikely, it still could be so. But when something seems to be confirmed by every reasonable method, then we can call it a fact.

law: a characteristic of the universes that seems fundamental to the workings of he universe.

part: any component of the universe.

Science: the field of study which tries to describe and understand the nature of the universe in whole or part. The field of study or discipline that we call Science is spelled with a capital "S" as it is a proper noun in this use while science with a small "s" is the application of this discipline.

theory: a hypothesis or group of hypotheses which have been validated but not to the point of near certainty.

universe: that which exists and in its entirety. This includes all that exists whether it can be perceived or not.

whole: something that permeates the universe at large. e.g. gravity.

Note: The definitions used here and in the article above are those of the author's unless otherwise referenced.

**In addition to the above definitions of hypothesis, theory, fact, and law, below is an example of their appropriate use.

Let's say that I form the hypothesis that fire is hot. I then put my hand into a fire and find it is hot. Now it is a theory as it has been verified. If it is verified by many to the point of certainty then it becomes a fact.

Technically, there is nothing that is 100% certain. For instance, I could be existing in a dream world where fire is hot while in my real world fire is cold. Though this is highly unlikely, it still could be so. But when something seems to be confirmed by every reasonable method, then we can call it a fact.

A Law on the other hand is not a fact, but rather it is something that seems fundamental to the workings of the universe. As we have seen, Laws are subject to revision (as Einstein did to Newton, and Siepmann has done to Einstein[6]).

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From: Bob Bertelli
Sent: Monday, October 24, 2011 4:43 PM
To: Melissa Miller-Henson
Subject: Entities involved in ocean and coastal management

This may be of help.

Overview of California Ocean and Coastal Laws With Reference to the Marine Environment

Prepared for the California Ocean Protection Council

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Table of contents

CHAPTER 1: FOUNDATIONAL AND JURISDICTIONAL ISSUES....9

1.1 INTRODUCTION....9
1.2 CALIFORNIA'S OFFSHORE BOUNDARIES....10
1.2.1 California State Boundaries....10
1.2.2 Federal Waters....12
1.2.3 Boundaries under International Law....13
1.2.4 The Territorial Sea (0 to 12 Nautical Miles)....13
1.2.5 The Contiguous Zone (12 to 24 Nautical Miles)....14
1.2.6 The Exclusive Economic Zone (12 to 200 Nautical Miles)....14
1.2.7 The Continental Shelf....14
1.2.8 High Seas....15
1.2.9 Non-Jurisdictional Limits on U.S. and State Regulation of Marine Species....16
1.3 OVERVIEW OF OCEAN AND COASTAL LAW IN CALIFORNIA....17
1.4 REGIONAL MANAGEMENT COUNCILS....20
1.5 STATE LAW....20

CHAPTER 2: CONSTITUTIONAL AND COMMON LAW OVERLAYS TO NAVIGABLE WATERS....21

2.1 INTRODUCTION....21
2.2 PUBLIC TRUST DOCTRINE....21
2.2.1 Overview....21
2.2.2 History....22
2.2.3 Trust Property is Inalienable....22
2.2.4 Granted Lands Must Comply with Public Trust....23
2.2.5 An Evolving Doctrine....23
2.2.6 Competing and Conflicting Uses....23
2.2.7 Statutory and Constitutional Rights under California Law....23
2.3 THE FEDERAL NAVIGATIONAL SERVITUDE....24

CHAPTER 3: FEDERAL AND STATE ENTITIES INVOLVED IN OCEAN AND COASTAL MANAGEMENT....25

3.1 INTRODUCTION....25
3.2 FEDERAL AGENCIES WITH OCEAN AND COASTAL RESPONSIBILITIES....25
3.2.1 Department of Commerce....25
3.2.2 Department of Interior....26
3.2.3 Department of Defense....27
3.2.4 Environmental Protection Agency....27
3.3 STATE AGENCIES WITH OCEAN AND COASTAL RESPONSIBILITIES....27
3.3.1 Resources Agency of California....28
3.3.2 California Ocean Protection Council....29
3.3.3 California Bay-Delta Program....30
3.3.4 Department of Boating and Waterways....31
3.3.5 California Coastal Commission....33
3.3.6 California Coastal Conservancy....35
3.3.7 DEPARTMENT OF CONSERVATION....37
3.3.8 California Energy Commission....38
3.3.9 Department of Fish and Game....40
3.3.10 Fish and Game Commission....44
3.3.11 Department of Parks and Recreation & State Parks Commission....44
3.3.12 Department of Water Resources....45
3.3.13 San Diego River Conservancy....46
3.3.14 San Francisco Bay Conservation and Development Commission....47

3.3.15 Santa Monica Mountains Conservancy *50*
3.3.16 State Lands Commission *51*
3.3.17 California Environmental Protection Agency *53*
3.3.18 Office of Environmental Health Hazard Assessment *53*
3.3.19 State and Regional Water Quality Control Boards *54*
3.3.20 California Health and Human Services Agency *55*
3.3.21 University of California & California State University Systems *56*
3.3.22 California Sea Grant *56*
3.4 INTER-AGENCY COUNCILS 57
3.5 PORTS 57
3.6 NATIVE AMERICAN TRIBES AND RANCHERIAS 58
3.7 REGIONAL FISHERY MANAGEMENT ORGANIZATIONS 58

CHAPTER 4: OCEAN USE PLANNING AND MANAGEMENT 59

4.1 INTRODUCTION 59
4.2 AN OUTLINE OF OCEAN MANAGEMENT 61
4.3 STATE INSTITUTIONS AND GOVERNANCE 63
4.3.1 California Ocean Resources Management Act (CORMA) *63*
4.3.2 California Ocean Resource Stewardship Act (CORSA) *64*
4.3.3 California's Ocean Action Plan *65*
4.3.4 California Ocean Protection Act (COPA) *66*
4.3.5 Ocean Protection Council *66*
4.4 MANAGEMENT COORDINATION WITH FEDERAL AGENCIES 67
4.4.1 Biodiversity Council *68*
4.4.2 CALFED Bay-Delta Program *68*
4.4.3 San Francisco Bay Joint Venture *69*
4.4.4 Southern California Wetlands Recovery Project *69*

CHAPTER 5: COASTAL ZONE MANAGEMENT 70

5.1 INTRODUCTION 70
5.2 DEFINITION OF THE COASTAL ZONE 72
5.3 LEAD STATE ENTITIES 73
5.4 OTHER STATE ENTITIES 74
5.5 CALIFORNIA COASTAL ACT OF 1976 75
5.5.1 Coastal Development Policies *76*
5.5.2 The Federal Consistency Requirement *77*
5.5.3 Interstate Consistency Issues *79*
5.6 PUBLIC ACCESS TO BEACHES AND THE COAST 79
5.6.1 State Policy *80*
5.6.2 The McAteer-Petris Act and Suisun Marsh Preservation Act *80*
5.7 BEACH EROSION, REPLENISHMENT, AND SHORELINE STABILIZATION 82
5.7.1 Introduction *82*
5.7.2 Regional Efforts within California *82*
5.7.3 Relevant Provisions of Federal law *83*
5.7.4 Relevant Provisions of State Law *84*
5.8 COASTAL CONSERVATION 85
5.8.1 Introduction *85*
5.8.2 State Law *85*

CHAPTER 6: MANAGED COASTAL AREAS 88

6.1 INTRODUCTION 88
6.2 FEDERAL MANAGED AREAS 88
6.2.1 National Marine Sanctuaries *89*
6.2.2 National Estuaries *89*
6.2.3 National Estuarine Research Reserves *90*

6.2.4 National Parks System *91*
6.2.5 Military Areas *91*
6.3 STATE MANAGED AREAS 92
6.3.1 Marine Managed Areas *92*
6.3.2 Historical Marine Managed Area Classifications *92*
6.3.3 New Statewide Classification System *100*
6.3.4 New Statewide Network of Marine Protected Areas *102*
6.3.5 Terrestrial and Non-Marine Units of the State Park System *103*
6.3.6 Management Authority *104*
6.3.7 Park Acquisition, Classification, and Planning *105*
6.3.8 Management of the State Park System *106*

CHAPTER 7: LIVING MARINE RESOURCES AND HABITATS 110

7.1 INTRODUCTION 110
7.2 MAJOR FEDERAL FISHERIES MANAGEMENT LAWS 111
7.3 PRIMARY STATE AGENCIES 113
7.4 MARINE LIFE MANAGEMENT 113
7.4.1 Marine Fisheries *115*
7.4.2 State Fishery Policy *117*
7.4.3 Scope of the MLMA *118*
7.4.4 MLMA Policies *118*
7.4.5 Fishery Management Plans *120*
7.5 STATE ENFORCEMENT OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (FCMA) 121
7.6 INTERNATIONAL REGULATION 123
7.7 WILDLIFE MANAGEMENT 124
7.7.1 Introduction *124*
7.7.2 Wildlife Management Laws *125*
7.7.3 Nuisance and Invasive Species *126*
7.8 ENDANGERED SPECIES AND MARINE MAMMALS 127
7.8.1 Endangered Species *127*
7.9 MARINE MAMMALS 129
7.9.1 Overview of Federal Laws *129*
7.9.2 Overview of State Law *130*
7.10 HABITATS 131
7.10.1 Salmon and Steelhead Trout Habitat *131*
7.10.2 Artificial Reefs *133*
7.11 HATCHERIES AND REARING FACILITIES 134
7.12 AQUACULTURE 135
7.12.1 Introduction *135*
7.12.2 State Policy *135*
7.12.3 Regulation of Aquaculture *136*

CHAPTER 8: CALIFORNIA'S MINERAL AND ENERGY RESOURCES 138

8.1 INTRODUCTION 138
8.2 ADMINISTRATION AND CONTROL OF SUBMERGED LANDS 139
8.3 OIL, GAS, AND MINERAL RESOURCES 141
8.3.1 Federal Management *141*
8.3.2 State Management *141*
8.3.3 State Lands Authority *142*
8.3.4 The California Sanctuary Act of 1994 ..... *143*
8.3.5 The California Coastal Act *143*
8.3.6 Coastal Resources and Energy Assistance Act *144*
8.3.7 Local Agencies *144*
8.4 RENEWABLE AND THERMAL ENERGY FROM OCEAN RESOURCES 144

8.4.1 Introduction *144*
8.4.2 Governing Statute *145*
8.4.3 Geothermal Energy *146*
8.5 DESALINATION 146
8.5.1 Introduction *146*
8.5.2 Governing Law *147*
8.5.3 Legislative and Executive Department Study of Desalination Facilities. *149*
8.5.4 Fiscal Provisions. *150*

CHAPTER 9: OCEAN AND COASTAL POLLUTION 151

9.1 INTRODUCTION 151
9.2 POINT SOURCE POLLUTION CONTROLS 151
9.2.1 Federal Requirements *151*
9.2.2 State Requirements *152*
9.2.3 Publicly Owned Treatment Works *154*
9.2.3 Urban Storm Water Permitting Program *155*
9.3 NON-POINT SOURCE POLLUTION 156
9.4 OTHER NON-POINT SOURCE PROVISIONS 158
9.5 DISPOSAL OF DREDGED MATERIALS 158
9.6 WATER QUALITY MONITORING, BEACH & SHELLFISH CONTAMINATION 159
9.6.1 Beach & Shellfish Contamination *160*
9.7 VESSEL POLLUTION 161
9.7.1 Ballast Water Control *162*
9.8 OIL POLLUTION 163
9.8.1 Harbors and Navigation Code *163*
9.8.2 Water Code *163*
9.8.3 Oil Transfer and Transportation Emission and Risk Reduction Act of 2002 ..... *164*
9.8.4 Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990 ..... *164*
9.8.5 Federal Oil Pollution, Prevention, Response, Liability, and Compensation Act of 1990 ..... *166*
9.9 FUNDING FOR IMPROVED WATER QUALITY AND QUANTITY 167

CHAPTER 10: MARINE OPERATIONS 170

10.1 INTRODUCTION 170
10.2 FEDERAL VS. STATE REGULATION OF MARINE OPERATIONS AND THE ROLE OF INTERNATIONAL LAW 170
10.2.1 Federal Preemption *170*
10.2.2 Role of International Law *172*
10.2.3 Regulation in State Territorial Waters *174*
10.3 NAVIGATION 175
10.4 VESSELS 176
10.4.1 Federal Controls *176*
10.4.2 State Controls *177*
10.5 HARBOR AND PORT DISTRICTS 177
10.6 CALIFORNIA'S PORTS 179
10.6.1 Introduction *179*
10.6.2 San Diego *180*
10.6.3 Long Beach *181*
10.6.4 Los Angeles *182*
10.6.5 Oakland *183*
10.6.6 San Francisco *185*
10.6.7 Humboldt Bay *185*
10.6.8 Other Ports *187*
10.7 DREDGING 187
10.8 PORT SECURITY AND ANTI-TERRORISM LAWS 188
10.8.1 International Law *188*

10.8.2 Federal Law *189*
10.8.3 State Law *189*

CHAPTER 11: EDUCATION AND RESEARCH 190

11.1 INTRODUCTION 190
11. 2 FEDERAL LAWS 191
11.3 STATE LAWS 192

CHAPTER 1: FOUNDATIONAL AND JURISDICTIONAL ISSUES

Photo: Sheila Semans

1.1 Introduction

This inventory of California ocean laws is developed in response to Action Item 2 of the Governor's Ocean Action Strategy[1] and the Ocean Protection Council's strategic plan.[2] These documents direct an update of California's inventory of ocean and coastal laws and regulations. This inventory is designed to serve as reference material for the work of the Ocean Protection Council and state and local agencies interested in ocean resource management. The inventory provides a generalized list of laws, which affect natural resources within the state's coastal and marine jurisdiction. Naturally, some redaction of relevant laws occurred in development of the inventory; laws that are not unique to ocean and coastal resources are generally not included in this inventory. For example, mining and timber laws are not included, though the regulation of these resources may directly or indirectly affect coastal and ocean resources. Included in this inventory are laws from various departments and commissions of California's chief resources agencies: the Resources Agency and California Environmental Protection Agency, as well as selected federal laws.

The Pacific Ocean and its resources are so fundamental to California's legal landscape that it is referenced in our Constitution and founding documents.[3] References to the ocean and coastal resources are found in well over half of California's 29 codes. Some codes provide a detailed regime for the identification and management of ocean resources; others mention these ocean resources only as a subset of a larger set of natural

[1] CALIFORNIA RESOURCES AGENCY & CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, PROTECTING OUR OCEAN, CALIFORNIA'S ACTION STRATEGY (HEREINAFTER "OCEAN ACTION PLAN"), (2004), page 10.
[2] California Ocean Protection Council, *A Vision for Our Ocean and Coast: Five Year Strategic Plan 2006*, Objective 2(a) (hereinafter: "STRATEGIC PLAN").
[3] The Treaty of Guadalupe Hidalgo, February 2, 1848, 9 Stat. 922, Art. V.

resources that are managed or regulated by the state. Two codes in particular provide detailed laws concerning ocean and coastal resources. The Resources Code and the Fish and Game Code contain significant detail concerning the management of ocean and coastal resources.[4] The regulation of saltwater fish and fisheries, for example, is both detailed and complex in its organization. While this inventory discusses relevant portions of these codes, an evaluation of how these laws integrate federal or local law would be beyond this document's intended scope. This inventory provides a starting point for California resource managers and other persons interested in these resources to identify where relevant laws are found and a simplified overview of their scope and effect.

This inventory does not completely capture the extensive activities of policy and advisory groups, academia or profit and nonprofit organizations, all of which are actively involved, either directly or indirectly, in the management of these important resources. Resource management in California is uniquely a collaboration of governmental and non-governmental entities involved in ocean activities. The transitory nature of the non-governmental organizations makes it difficult to chronicle all of the variety of activities and actors involved in management of California's ocean resources. The reader is therefore encouraged to contact relevant governmental organizations referenced in this document to learn of additional stakeholders and informal resource managers, which may be involved.

This inventory classifies ocean and coastal management into eight concepts: ocean use planning; coastal zone management; special ocean areas, living marine resources; mineral and energy resources; coastal and ocean pollution; marine operations and education and research. This inventory begins with an overview of ocean boundaries and jurisdiction then discusses some of the constitutional and common law principles governing management of navigable waters. Chapter 3discusses the agencies involved in ocean and coastal management in California and their principal duties related to the ocean.

1.2 California's Offshore Boundaries

The waters along and off the California coast include a complex array of local, state, federal, and international jurisdictions, including State Tidelands and Submerged Lands (State Tidelands), the Outer Continental Shelf (OCS), the territorial sea, the contiguous zone, the exclusive economic zone and high seas. These jurisdictions are used to describe areas of offshore ownership, sovereignty, various forms of mineral, fishery, national security rights, or regulatory controls." However, care should be exercised, as federal and state ocean boundaries are the subject of frequent congressional proposals to redefine the relationship between state and federal control of territorial waters and the continental shelf.

1.2.1 California State Boundaries

[4] Providing a section by section inventory of laws would require over 1,300 individual entries and would not prove useful in providing an overview of ocean and coastal laws within the state. Source: Westlaw, California Statutes database.

Article III, section 2 of the California Constitution provides that the boundaries of the state are those stated in the Constitution of 1849, as modified pursuant to statute. California Government Code Sections 170 and 171 provide for the boundaries of the state taking into consideration offshore islands, bays and inland waters. Government Code §172 declares definitions and boundaries of certain navigable waters of the State. These code sections were enacted in 1949 in response to the United States Supreme Court decision in *United States v. California,*[5] which held that the federal government, and not the states, has paramount rights to the lands offshore of the "inland waters" of the State. The dispute over who owned the submerged lands lying off the California coast was partially resolved in 1953 by the Submerged Lands Act (SLA), discussed below, the main purpose of which was to modify the effect of the *California* decision by moving the boundary between federal and state jurisdiction to the seaward boundaries of the state. Other sections of this code define the specific boundaries of several California counties whose boundaries include the Pacific Ocean. The Harbor and Navigation Code designates the state's official "coastline" with reference to the U.S. Coast and Geodetic Survey of 1933.

Under the above referenced state law, California's territorial boundaries extend three nautical miles (6076.103 ft x 3) beyond the outermost islands, reefs, and rocks, and include all waters between those islands and the coast. Under this state law definition, the entire Santa Barbara Channel is arguably within the state. On the other hand, federal law as set forth in the Submerged Lands Act as interpreted by subsequent decisions of the United States Supreme Court, defines California's state ownership boundaries more narrowly, extending three geographical miles (6087.15 feet x 3) from the coast and where inland waters meet the sea. Technically the three geographical miles are measured by creating concentric arcs from points on a base line that consists of either lower low water adjacent to a seaward physical point (an island, rock, breakwater, etc.) or a straight closing line across the mouth of a bay determined by the United States Supreme Court to be an inland water (Monterey Bay and San Diego Bay are examples). This definition provides a three-mile-wide band around any islands lying off the coast, but excludes waters between the islands and the coast. Under this federal law definition of California's boundaries, areas such as the central portion of the Santa Barbara Channel are not within the state waters.[6]

[5] 332 U.S. 19 (1947).
[6] For an interesting discussion of this issue and the use of international precedent in determining shore boundaries, See AARON L. SHALOWITZ, SHORE AND SEA BOUNDARIES, especially chapter 5, available at http://chartmaker.ncd.noaa.gov/shalowitz/v1p1ch5.pdf.

1.2.2 Federal Waters

The Submerged Lands Act (SLA) of 1953[7] grants coastal states ownership of lands and resources out to three nautical miles from shore, and provides for State control and regulation of resource development, such as fisheries and energy resources, within this area.

The Outer Continental Shelf Lands Act (OCSLA) of 1953[8] establishes federal jurisdiction over the lands and resources beyond three nautical miles from shore, and creates a legal process for developing outer continental shelf resources.

[7] 43 U.S.C. 1301, *et seq*.
[8] 43 U.S.C. 1331, et seq.

Even within state waters, the federal government has enclaves of federal waters in federally designated marine sanctuaries (discussed in Chapter 6) and aquatic national monuments such as the recent designation of rock monuments offshore of the coast of California as the California Coastal National Monument[9] and adjacent to military installations.[10] The monument spans the entire coast between Mexico and Oregon. It encompasses the islands, rocks, exposed reefs, and pinnacles off the coast above mean high tide. The Bureau of Land management will manage these monuments in cooperation with state and local authorities.[11]

1.2.3 Boundaries under International Law[12]

The boundary line dividing the land and internal waters from the ocean is called the *baseline*. The baseline is determined according to principles described in the 1958 United Nations Convention on the Territorial Sea and the Contiguous Zone[13] and the 1982 UN Convention on the Law of the Sea (UNCLOS),[14] and is normally the low water line along the coast, as marked on charts officially recognized by the coastal nation. In the United States, the definition has been further refined based on federal court decisions; the U.S. baseline is the mean lower low water line along the coast, as shown on official U.S. nautical charts.[15] The baseline can be drawn across river mouths, the opening of bays, and along the outer points of complex coastlines (with some limitations). Water bodies inland of the baseline—such as bays, estuaries, rivers, and lakes, and sometimes portions of coastal ocean waters—are considered internal waters and are subject to national sovereignty over nearly all persons and things located there (with some exceptions, such as foreign warships).

1.2.4 The Territorial Sea (0 to 12 Nautical Miles)

Under international law, every coastal nation has theoretical sovereignty over the air space, water column, seabed, and subsoil of its territorial sea, subject to certain rights of passage for foreign vessels.[16] The territorial sea is located adjacent to and seaward of the nation's land territory and internal waters.

---

[9] Presidential Proclamation of January 11, 2000, reproduced at http://www.ca.blm.gov/pa/coastal_monument/proclamation.htm.
[10] 43 USCA § 155 (reserving lands for military operations).
[11] Source: http://www.ca.blm.gov/pa/coastal_monument/.
[12] U.S. Commission on Ocean Policy, An Ocean Blueprint for the 21st Century (2004), App. 6, at 5.
[13] 516 U.N.T.S. 205; 15 U.S.T. 1606; T.I.A.S. 5639.
[14] U.N. Doc. A/CONF.62/122 and Corr.1 to 11, 21 I.L.M. 1261 (done at Montego Bay, Dec. 10, 1982).
[15] National Oceanic and Atmospheric Administration, Coastal Services Center. Federal Geographic Data Committee Marine Boundary Working Group: U.S. Marine Cadastre —Seabed and Subsoil Boundaries. December 31, 2002. Available at http://www.csc.noaa.gov/mbwg/htm/cad_sla.htm (accessed January 14, 2004).
[16] UNCLOS, Article 2 *et seq*.

1.2.5 The Contiguous Zone (12 to 24 Nautical Miles)

International law recognizes a contiguous zone adjacent to and seaward of the territorial sea of each coastal nation. Within its contiguous zone, a nation can assert authority to prevent or punish infringement of its customs, fiscal, immigration, and sanitary laws that apply in its territory or territorial sea. Under the 1958 United Nations Convention on the Territorial Sea and the Contiguous Zone, the United States formerly claimed a contiguous zone extending from 3 to 12 miles offshore.[17] In 1999, eleven years after President Reagan extended the U.S. territorial sea to 12 miles, President Clinton proclaimed a contiguous zone from 12 to 24 miles offshore for the United States,[18] consistent with UNCLOS, and thereby enhanced the authority of the U.S. Coast Guard to take enforcement actions against foreign flag vessels in this zone.

1.2.6 The Exclusive Economic Zone (12 to 200 Nautical Miles)

The Law of the Sea Treaty confirms the right of each coastal nation to establish an *exclusive economic zone* (EEZ), adjacent to the territorial sea and extending a maximum of 200 miles seaward from the baseline from which the territorial sea is measured. Within this area, the coastal state has limited sovereign rights for the purpose of exploring, exploiting, conserving, and managing the natural resources. The coastal nation also has jurisdiction in the EEZ over artificial islands or other installations and structures having economic purposes, as well as the protection and preservation of the marine environment.[19] President Reagan proclaimed an EEZ for the United States in 1983,[20] consistent with international law as reflected in UNCLOS. The U.S. EEZ, as originally established, occupied a belt of ocean between 3 and 200 miles offshore. The 1988 presidential proclamation on the territorial sea had the effect of changing the width of the U.S. EEZ to between 12 and 200 miles offshore for international purposes. Consistent with international law, the U.S. EEZ proclamation did not assert any control over vessel traffic (surface or submarine), aircraft over flight, or the laying of cables and pipelines on the ocean floor, which generally are traditional high-seas freedoms.

1.2.7 The Continental Shelf

The Outer Continental Shelf Lands Act codifies the 1945 Truman Proclamation concerning the U. S. exercise of dominion over the continental shelf adjacent to the U.S.[21] The Act proclaims U.S. sovereignty over all submerged lands lying seaward of State coastal waters (three miles offshore), which are under U.S. jurisdiction.[22] The

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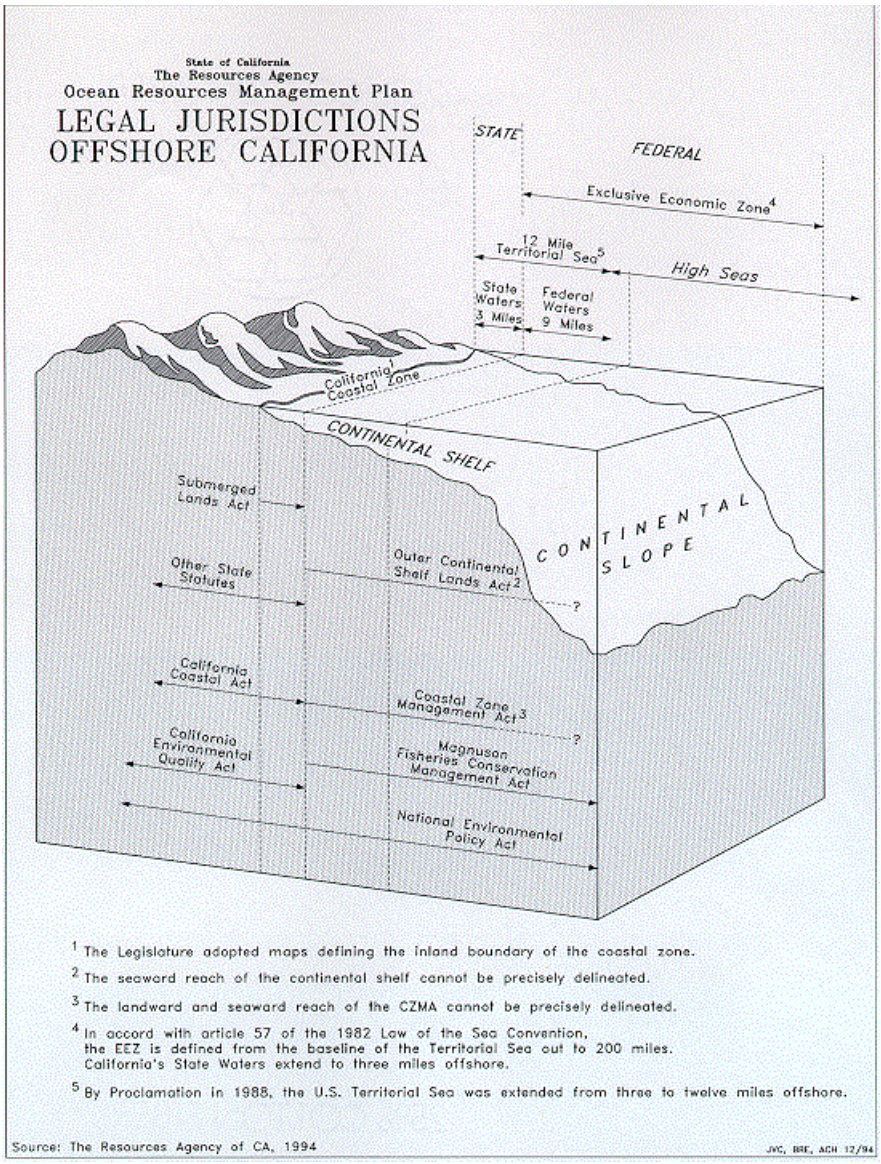
[17] 516 U.N.T.S. 205; 15 U.S.T. 1606; T.I.A.S. 5639. The U.S. declared its contiguous zone in State Department Public Notice 358 of June 1, 1972, 37 Fed. Reg. 11,906 (June 15, 1972).
[18] Presidential Proclamation 7219 of September 2, 1999. "The Contiguous Zone of the United States." 64 Fed Reg. 48,701 (Sept. 8, 1999).
[19] UNCLOS, Article 55 *et seq.*
[20] Presidential Proclamation 5030 of March 10, 1983. "The Exclusive Economic Zone of the United States of America." 48 Fed. Reg, 10,605 (Mar.14, 1983).
[21] See discussion of this in the U.S. Commission on Ocean Policy, An Ocean Blueprint for the 21st Century, supra note 12, App. 6, at 8.
[22] 43 U.S.C. 1331 - 1356, PL 212, Ch.345, August 7, 1953, 67 Stat. 462.

statute authorized the Secretary of Interior to promulgate regulations to lease the OCS in an effort to prevent waste and conserve natural resources and to grant leases to the highest responsible qualified bidder as determined by competitive bidding procedures. Amendments to the Act established policy for the management and exploitation of oil and natural gas in the Outer Continental Shelf, and for protecting the marine and coastal environment through an oil spill liability fund, the Coastal Energy Impact Program, and a fisheries contingency fund. The authority for the Secretary of the Army to prevent obstructions to navigation in navigable waters of the United States is extended to artificial islands and fixed structures located on the outer continental shelf.[23] In addition, the Secretary of Interior may, by agreement, utilize personnel, or facilities of any Federal agency for environmental studies or information for assessment of management of impacts on the environment or impacts on marine biota from pollution or large spills. Federal agencies must notify the Department of Interior regarding their activities that will have a direct and significant effect on the Outer Continental Shelf or its development.[24]

1.2.8 High Seas

The high seas are areas of the ocean that are not subject to sovereign control. The high seas were formerly defined by the 1958 U.N. Convention on the High Seas as the area beyond the territorial seas of coastal nations.[25] Today, they are defined by UNCLOS as the area seaward of the territorial seas and EEZs of coastal nations.[26] Sixty percent of the world's oceans remain high seas and, in general, the traditional freedoms of the high seas still prevail.[27] With a few exceptions, such as natural resource management-related matters and scientific research, many high-seas freedoms also apply in the EEZ. Even on and above the high seas beyond the EEZ, the United States and other coastal nations have some limited ability to exercise governmental jurisdiction and legal authority to make or enforce law.

[23] 43 U.S.C. 1333(e)
[24] 43 U.S.C. 1334(h). The Minerals Management Service is the Interior agency which administers OCS leases and conducts environmental studies within the OCS, as discussed in chapter 8, below.
[25] 1958 United Nations Convention on the High Seas; 450 U.N.T.S. 82; 13 U.S.T. 2312; T.I.A.S. 5200.
[26] UNCLOS, Article 86.
[27] Source: U.S. Commission on Ocean Policy, An Ocean Blueprint for the 21st Century, *supra* note 12, App. 6, at 9.



1.2.9 Non-Jurisdictional Limits on U.S. and State Regulation of Marine Species

The United States is party to a number of international treaties and international organizations that use non-geographically based mechanisms to protect high seas resources, ensuring the compliance of parties, and constraining non-party actors. The Convention on International Trade in Endangered Species,[28] for example, prohibits trade in species listed as endangered in its Appendix I as well as certain species protected unilaterally within certain jurisdictions. The Tunas Convention Act of 1950[29] authorizes the Secretary of Commerce to issue regulations for implementing recommendations of

[28] Convention on International Trade in Endangered Species of Wild Fauna and Flora, *done* March 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243.
[29] Act of September 7, 1950, *codified at* 16 U.S.C. §§ 951-961, as amended.

the Inter-American Tropical Tuna Commission (IATTC). To achieve the goals of the Convention, the Secretary of Commerce is authorized to establish open or closed seasons, limit the size and quantity of the permissible catch, limit or prohibit incidental catch of regulated species and other measures to implement IATTC recommendations. Concurrent with these regulations, the Secretary of Commerce also issues regulations prohibiting U.S. entry of any fish taken in a manner which undermines the effectiveness of IATTC recommendations.[30]

The Fishermen's Protective Act of 1967[31] authorizes the Secretary of Commerce to establish an insurance fund for the reimbursement of owners or charterers of fishing vessels which incur damage, loss, or destruction while engaged in any fishery under U.S. exclusive management, or are damaged by a vessel other than a U.S. vessel. The Fund is capitalized by monies recovered from administrative fees, surcharges collected on foreign vessels, and revenues from the Fishing Vessel and Gear Damage Compensation Fund. The 1971 Pelly Amendment to the Fishermen's Protective Act[32] authorizes the Secretary of Commerce, upon determination that foreign nationals are conduction fishing operations in a way that diminishes the effectiveness of international fishery conservation programs, or engaged in trade/taking of endangered or threatened species to certify such to the President in order to create trade sanctions. Upon periodic review, if the reasons for certification no longer exist, the Secretary may revoke the certification.

Other restrictions on fishing and resource extraction arise by virtue of direct trade limitations. In 1994, the establishment of the World Trade Organization (WTO) to administer the General Agreement on Trade and Tariffs (GATT) resulted in changes in its dispute resolution process. Most important, an Appellate Body was created to review panel decisions about violations of the trade agreement. As a result of this change, parties have the ability to discuss further the balance between free trade principles and environmental protection.[33]

1.3 Overview of Ocean and Coastal Law in California

For both historical and practical reasons, the law governing coastal and ocean management offshore of the California coast is a complex nexus of sovereign interests. The U.S. Commission on Ocean Policy (USCOP) summarizes this complexity:

> Management of ocean and coastal resources and activities must address a multitude of different issues, and involves aspects of a variety of laws—at local, state, federal, and international levels—including those related to property

[30] *See* 50 *C.F.R.* Parts 280 and 281.
[31] 22 U.S.C §§ 1971-1980; Pub. L. 90-482, as amended.
[32] 22 U.S.C. §§ 1978 *et seq.*
[33] For example, the U.S. banned importation of shrimp from countries not employing sea turtle exclusion devices for shrimp trawls. The panel found that the measure applied by the United States is justified because it does not constitute arbitrary or unjustifiable discrimination as long as there were ongoing serious, good faith efforts to reach a multilateral agreement for the protection and conservation of sea turtles. http://www.wto.org/english/news_e/news01_e/dsb_21nov01_e.htm. For a fuller discussion of this issue, see USCOP, An Ocean Blueprint for the 21st Century (2004), supra note 12, App. 6, pp. 63-67.

> ownership, land and natural resource use, environmental and species protection, and shipping and other marine operations—all applied in the context of the multi-dimensional nature of the marine environment. Several of those aspects of law may come into play simultaneously when addressing conflicts over public and private rights, boundaries, jurisdictions, and management priorities concerning ocean and coastal resources. In addition, some laws result in geographic and regulatory fragmentation and species-by-species or resource-by-resource regulation.[34]

Because of this complexity, a complete list of relevant federal laws would be both unwieldy and irrelevant to the Council's purpose. Hence, a summary of major federal laws are listed to provide context to state laws that are discussed further below.

At the federal level, numerous departments and agencies have some authority over ocean waters or resources. For example, the offshore oil and gas leasing and permit review process involves a number of federal and state regulatory agencies. In federal waters, the federal government—specifically the Secretary of the Interior—has the authority to issue leases and permits for the extraction of oil and natural gas, pursuant to the Outer Continental Shelf Lands Act. Within the U.S. Department of the Interior, such authority has been delegated to the Minerals Management Service. However, an applicant also needs to comply with a variety of other laws, some of which are cross-referenced in the Outer Continental Shelf Lands Act: applicable requirements of state coastal zone management programs, pursuant to the Coastal Zone Management Act (CZMA); the National Environmental Policy Act permit requirements of the U.S. Army Corps of Engineers for obstructions to navigation under the Rivers and Harbors Act (RHA); permit requirements of the U.S. Environmental Protection Agency under the Clean Water Act (CWA) for the discharge of pollutants into the ocean and pursuant to the Clean Air Act (CAA) for certain air emissions; and additional legal requirements involving other federal agencies.

In state waters, the state has sole jurisdiction to issue leases and permits for oil and gas extraction, but the applicant also has to meet the requirements of the state's coastal zone management program, the U.S. Army Corps of Engineers, U.S. EPA (or a state agency exercising Clean Water Act and Clean Air Act exercising legal authority in lieu of EPA), and other state and federal agencies exercising additional legal authorities. Existing federal and state laws generally focus on regulation of individual categories of resources or activities. For example, the Outer Continental Shelf Lands Act governs oil, natural gas, and mineral exploration and extraction on the Outer Continental Shelf. The Clean Water Act and other statutes regulate activities affecting water quality in "waters of the United States" (which generally means internal navigable waters and ocean waters out to three miles)[35] in the contiguous zone and in many instances further seaward based on the CWA or as specified in another statute governing the offshore activity; and the Rivers and

[34] USCOP, An Ocean Blueprint for the 21st Century (2004), *supra* note 12, App. 6, at 2.
[35] See Oil Pollution Act, 33 U.S.C. 2701(35) ("territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of 3 miles).

Harbors Act regulates potential obstructions to navigation, both in state waters and on the OCS.

Similarly, federal laws often focus on one category of living marine resource, rather than on ecosystems as a whole. For example: the Magnuson-Stevens Fishery and Conservation Act governs the management of federal fishing waters off the coast of the United States. As part of this process, the Commerce Department directs the National Oceanic and Atmospheric Administration (NOAA), which in turn delegates practical management to the NMFS. The NMFS oversees the operations of eight regional fishery management councils, including the Pacific Fishery Management Council (Pacific Council). The Pacific Council manages fisheries for salmon, groundfish, coastal pelagic species (like sardines, anchovies, and mackerel), and highly migratory species (like tunas and sharks) in the EEZ. The Pacific Council develops, among other things, annual harvest recommendations for the species of fish within its fishery, which are then subject to revision by the NMFS and formal approval by the Secretary of Commerce. The Pacific Council is also a part of California law.36

Federal laws that begin to address ecosystem impacts from resource extraction activities are emerging however. In an effort to curtail the effects of driftnet fishing on U.S. marine resources, the Driftnet Impact Monitoring, Assessment, and Control Act of 1987[37] authorized the Secretary of Commerce to enter into agreements with foreign nations to monitor, assess and reduce the adverse effects of driftnets in the marine environment. The Driftnet Act Amendments of 1990[38] direct the Secretary of Commerce, through the Secretary of State and the Secretary of Homeland Security, to seek international agreements that require foreign driftnet vessels to be equipped with satellite transmitters, authorize U.S. officials to board and inspect foreign driftnets vessels for violations of the agreement, require reliable monitoring and documentation of all catches by foreign vessels, impose time and area restrictions on driftnet use to prevent interception of anadromous species. It also requires driftnets be constructed of biodegradable materials, be clearly marked, and be designed to minimize the taking of non-target living resources.

With the geographic divisions of legal authority over ocean resources between the federal and state governments, the possibility of multiple agencies having a regulatory or an advisory role at both the federal and state levels with respect to a particular resource or activity, and individual laws typically addressing individual categories of resources or issues, the protection and management of ocean and coastal resources and ecosystems can sometimes be a challenge for managers at all levels of government.

For example, states generally have authority to regulate recreational and commercial fishing in state waters.[39] However, if the Secretary of Commerce determines that a state is taking actions in state waters that are adverse to a (largely federal water) fishery

[36] Fish & Game Code §§ 1400 *et seq.*
[37] Title IV of Pub. L. 100-220, *codified at* 16 *U.S.C.* 1822 *et seq.*
[38] Pub. L. 101-627, § 107.
[39] *See People v. Weeren* (1980), 26 Cal3d 654, 163 Cal.Rptr. 255.

regulated under the MSA, the Secretary may intervene and regulate that fishery in state waters.[40]

1.4 Regional Management Councils

In addition to various federal agencies that are involved in marine resource conservation, the U.S. is a party to a variety of regional fisheries management councils that serve as advisors on the management of trans-boundary living marine resources. These councils include:

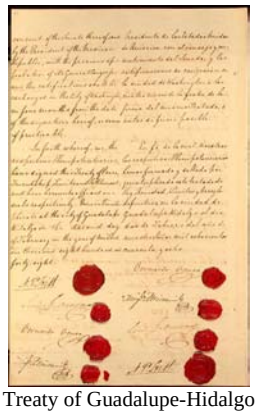
APFIC: Asia-Pacific Fisheries Commission IATTC: Inter-American Tropical Tuna Commission IPHC: International Pacific Halibut Commission NPAFC: North Pacific Anadromous Fish Commission PICES: North Pacific Marine Science Organization PSC: Pacific Salmon Commission SPC: Secretariat of the Pacific Community WCPFC: Western and Central Pacific Fisheries Commission (U.S. is an observer)

1.5 State Law

State statutes which detail ocean and coastal resource management are as varied and complex as the laws listed in the appendix suggest. These laws span 26 of California's 29 statutory codes. State laws generally apply in California's territorial sea. However, as discussed in more detail in Section 5.2 below, federal consistency with state coastal zone planning and fisheries enforcement extend state authority to areas beyond the territorial sea. In addition, problems which span the boundary between state and federal waters can require state cooperation and concurrence in the management regime, or require the state to exercise its delegated authority to enforce federal laws such as fishing restrictions, clean water act violations, etc.

[40] *See* 16 U.S.C. § 1856(b).

CHAPTER 2: CONSTITUTIONAL AND COMMON LAW OVERLAYS TO NAVIGABLE WATERS


Treaty of Guadalupe-Hidalgo

2.1 Introduction

Two related but distinct common law doctrines frequently influence public management of coastal and ocean waters. The public trust doctrine is an ancient common law doctrine that requires states to protect the public's interest in water-related activities such as commerce, navigation, and fishing on tidal and submerged lands and the beds of navigable waterways. When California was admitted to the union in 1850, it acquired sovereign ownership of tidelands under the terms of a common law trust doctrine evolved from Roman and English law.[41] A related, but distinct doctrine is the navigational servitude.

2.2 Public Trust Doctrine[42]

2.2.1 Overview

The public trust doctrine compels states to affirmatively protect the public's interest in water-related activities such as commerce, navigation, and fishing on tide and submerged lands and the beds of navigable waterways. These lands, also known as sovereign lands, inured to California when it entered the Union as occurred with all states, and may not be bought and sold like other state-owned lands.

The California Legislature designated the State Lands Commission as the steward of public trust lands that have been retained by the state.[43] The Commission also has

[41] See *City of Berkeley v. Superior Court* (1980) 26 Cal.3d 515, 521, 162 Cal. Rptr. 326, *cert. den.*, 449 U.S. 840.
[42] This information draws heavily from the following sources: The State Lands Commission's "Public Trust Policy," and "Public Trust Doctrine" (for the complete text see http://www.slc.ca.gov/Policy%20Statements/Policy_Statements_Home.htm) and Jan Stevens, *The Public Trust: A Sovereign's Ancient Prerogative Becomes the People's Environmental Right*, 14 U.C. Davis L. Rev. 195 (1980).
[43] Pub. Res. Code § 6301.

oversight authority for trust lands granted by the legislature to local governments. The Commission acts according to legislative direction and the public trust doctrine to ensure that sovereign lands are used in appropriate ways that protect the public's interest.

As a creature of common law, the public trust doctrine is constantly evolving to adapt to changed circumstances both through legislative action and as guided by case law. Traditional trust uses of commerce, navigation, and fishing continue today. Environmental preservation and recreation have also been found appropriate by the courts. In addition, other uses such as oil production and pipeline rights-of-way are allowable if they do not interfere with trust needs.

2.2.2 History

The public trust doctrine derives from the long-held idea that the air, the rivers, the oceans, and the shoreline are for public use and can not be owned privately. Under English common law, the sovereign held title to navigable waterways and submerged lands, not in a proprietary capacity, but as trustee of a public trust for the benefit of the people for commerce, navigation, and fishing.

After the American Revolution, each of the original thirteen states inherited this sovereign right and duty. Each became trustee of the tide and submerged lands within its boundaries for the common use of the people. [44] Subsequently admitted states, like California, possess the same sovereign rights over their tide and submerged lands as the original thirteen states under the equal footing doctrine. Consequently, in the coastal context, title to submerged lands seaward to 3 nautical miles and tidelands up to the ordinary high water mark are held by the state in trust for the people.

2.2.3 Trust Property is Inalienable

In the landmark case, *Illinois Central Railroad Co.* v. *Illinois*, the U.S. Supreme Court held that states may not alienate the public trust attached to its sovereign lands except in very limited circumstances. In that case, the Court found that the Illinois legislature's grant of most of Chicago's waterfront to a private railroad was void.[45] In California, the validity of private patents along the coast arose early in the state's history. The court held in *People* v. *Morrill* that the conveyance of lands along the coast is invalid.[46] The doctrine thus serves as a limitation on the state's ability to divest itself of its public trust responsibilities.

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[44] For example, United States Supreme Court has indicated that shellfish harvesting is an interest protected by the public trust doctrine as early as the late 1800's See *McCready v. Virgina,* 94 U.S. 391, 395-97 (1976) (restrictions on oyster harvesting permitted under concept of state authority to regulate public waters and *Smith v. Maryland*, 59 US. (18 How.) 71, 75, 15 L.Ed. 269 (1855) (right to access to submerged lands "is held by the State, not only subject to, but in some sense in trust for, the enjoyment of certain public rights, among which is the common liberty of taking fish, as well shellfish as floating fish") (citing cases from as early as 1811).
[45] *Illinois Central R.R. Co.* v. *Illinois*, 146 U.S. 387, 452-53 (1892).
[46] *People* v. *Morrill*, (1864) 26 Cal. 336.

2.2.4 Granted Lands Must Comply with Public Trust

The legislature has granted public trust lands to 85 cities, counties, and harbor districts for local management. These lands, known as "granted lands," include the state's major ports. A grantee must manage trust lands consistent with applicable granting statutes and the public trust doctrine. The State Lands Commission exercises oversight over all granted lands by monitoring and auditing the activities of grantees to insure compliance with the terms of the statutory grants and the public trust.[47]

2.2.5 An Evolving Doctrine

As society's uses of sovereign lands have changed, the public trust doctrine has expanded to include more than the public rights of commerce, navigation, and fishing. Recreational purposes such as bathing, swimming, boating, and preservation of tidelands in their natural state for scientific study, open space, and wildlife habitat were found to be valid trust uses by the California Supreme Court in the case of *Marks* v. *Whitney*.[48] The public trust doctrine will likely continue to be clarified and defined by the courts to reflect the public's use of these valuable lands.

2.2.6 Competing and Conflicting Uses

With much of California's population located along the coastal corridor, and especially concentrated in urban areas, different trust uses often conflict. Generally, trust uses are not prioritized, and a process must occur to sort out the most appropriate use for a given area among competing valid trust uses. Another caveat of the doctrine is that public trust lands must be used to serve statewide, as opposed to purely local, public purposes.

Uses of trust lands are generally limited to uses that are water dependent or related. Although some uses of trust lands are clearly inappropriate, some proposed uses must be examined on a case-by-case basis. State Lands Commission policy offers the following guidance for improper uses:

Uses that are generally not permitted on public trust lands are those that are not trust use related, do not serve a public purpose, and can be located on non-waterfront property, such as residential and non-maritime related commercial and office uses. While trust lands cannot generally be alienated from public ownership, uses of trust lands can be carried out by public or private entities by lease from this Commission or a local agency grantee. In some cases, such as some industrial leases, the public may be excluded from public trust lands in order to accomplish a proper trust use.

2.2.7 Statutory and Constitutional Rights under California Law

[47] Pub. Res. Code § 6306.
[48] *Marks* v. *Whitney* (1971), 6 Cal.3d 251, 259-260.

There are statutory and constitutional provisions that relate to some of the same uses as the public trust doctrine, but often are distinct rights in addition to the public trust doctrine. For example, the public right to navigate, found in the California Constitution, does not rely on the state's ownership of the submerged bed.[49] The public trust doctrine remains intact as a common law doctrine based on the state's sovereign property rights in the beds of its submerged and navigable waters.

2.3 The Federal Navigational Servitude

The federal navigational servitude provides the national government a superior right to navigate tidal or navigable fresh waters in order to protect interstate commerce and navigation. The source of the servitude stems from the Commerce Clause to the United States Constitution with provides for federal oversight of interstate commerce. This servitude subjects all private-ownership rights to the control of the federal government in the interest of navigation.[50] The scope of the navigational servitude depends upon whether the navigable water is marine or riparian. In tidal waters the control of the Federal Government extends to the "mean higher high water line."[51] Water bodies which are non-navigable or inaccessible to the public are exempt from the navigational servitude, since they are unsuitable to interstate commerce.[52]

[49]California Constitution article X, § 4.
[50] See *Gibson v. United States*, 166 U.S. 269, 271-272 (1897).
[51] *United States v. California*, 381 U.S. 139, 171 n.40 (1975).
[52] *Kaiser Aetna v. U.S.*, 444 U.S. 164, 100 S.Ct. 383 (1979)(refusing to impose a navigational servitude on marinas made navigable through dredging).

CHAPTER 3: FEDERAL AND STATE ENTITIES INVOLVED IN OCEAN AND COASTAL MANAGEMENT

Pacifica; Photo: Eileen Ecklund

3.1 Introduction

As mentioned previously, management of ocean and coastal resources in California is a mix of state, local and federal regulatory and proprietary agencies that have a presence on the coast and offshore.

3.2 Federal Agencies with Ocean and Coastal Responsibilities

Many if not most federal agencies have programs or responsibilities that touch and concern California's coastal and ocean areas. However, given the focus of this document on state law, only a few of the significant federal actors are identified.

3.2.1 Department of Commerce

The federal agency with the largest ocean and coastal presence is the Department of Commerce by virtue of its department, the National Oceanic and Atmospheric Administration (NOAA). NOAA conducts research and manages ocean resources through the study of weather and satellite information; fisheries research and management; coastal services and international relations. NOAA is actively involved in the establishment of marine sanctuaries, and estuaries of national significance. Under the National Estuarine Research Reserve System three reserves within California: Elkhorn Slough, the Tijuana River, and the San Francisco Bay provide for long-term research, monitoring, and public education. Enforcement activities are the responsibility of the state partners and fisheries.

Under the Magnuson-Stevens Fisheries Conservation Act, NOAA's National Marine Fisheries Service has regulatory authority for marine finfishes, invertebrates, and marine mammals other than sea otters in waters 3-200 nautical miles from shore.

3.2.2 Department of Interior

The Department of Interior is the federal government's primary land-management department and has several agencies with responsibility for ocean and coastal-resources. The United States Fish and Wildlife Service is largely responsible for enforcing wildlife conservation laws throughout the U.S. The Service enforces several major federal statutes including the Marine Mammal Protection Act,[53] the Endangered Species Act[54] and the Lacey Act.[55] The Service also manages the system of National Wildlife Refuges including Castle Rock, Humboldt Bay, San Pablo Bay, Marin Islands, Farallones Islands, Don Edwards reserve in San Francisco Bay, Salinas River, Guadalupe-Nipomo Dunes, Seal Beach, and the Tijuana Slough.

The National Park Service has several park lands located along the California coast including Redwood National Park, Point Reyes National Seashore, Golden Gate National Recreation Area, Channel Islands National Park and the Cabrillo National Monument. With the exception of the Channel Islands National Park, the seaward boundary of coastal national park lands extends to 1000ft offshore, or roughly one-quarter of a mile[56]. The National Park Service regulates the use of the seabed within the 1000ft but there is ambiguity as to its authority to regulate the harvest of living marine resources.

The Bureau of Land Management (BLM) has management responsibility for the California Coastal National Monument established in 2000 which extends from shore to twelve nautical miles and is composed of thousands of small rocks and pinnacles above mean high tide. The primary purpose of the Monument is to protect geological values, including habitat. The BLM manages living marine resources in cooperation with CDFG; a memorandum of understanding formalizes this agreement and includes the Department of Parks and Recreation.

The Minerals Management Service manages the nation's natural gas, oil and other mineral resources (such as sand and gravel) on the outer continental shelf. The Service has expanded duties as a result of the Energy Policy Act of 2005 provides new authority to facilitate renewable energy production and alternative uses of the outer continental shelf ("OCS"). Section 388 of the Act authorized the Secretary of the Interior to grant leases, easements, or rights-of-way for renewable energy projects and alternate uses of

[53] 16 U.S.C. §§ 1361-1421h (Act establishes a federal responsibility to conserve marine mammals. The Department of the Interior is responsible for all other marine mammals, including sea otter, walrus, polar bear, dugong and manatee.)
[54] 16 U.S.C. §§ 1531-1544.
[55] 16 U.S.C. §§ 3371-78 (Amendments to the act make it unlawful to import, export, transport, buy or sell fish, wildlife and plants taken or possessed in violation of federal, state or tribal law).
[56] Adjacent to the Golden Gate National Recreation Area, there are several underwater areas (mostly former military properties) that remain the property of the federal government.

existing oil and gas facilities on the Federal Outer Continental Shelf.[57] The Secretary of the Interior delegated authority for the new program to the Minerals Management Service. The Service is in charge of implementing new alternative energy research and development in the OCS. The Act also contains economic incentives, environmental, and legal criteria for evaluating new uses of the OCS.

3.2.3 Department of Defense

The Department of Defense has several large installations along the California coast .The Department of Defense and the Department of Fish and Game have made efforts in the past to coordinate military activities within resource management activities. The U.S. Air Force established nine 'danger zones' near Vandenburg Air Force Base, limiting boating within the zone.

3.2.4 Environmental Protection Agency

The USEPA provides a broad spectrum of environmental monitoring and enforcement activities to California's coastal and ocean environment. EPA has major programs involved in monitoring and enforcement of water quality in coastal and ocean areas. These programs are administered largely through the state and regional water quality control boards with EPA retaining oversight authority. Some water quality programs retained by EPA include ocean dumping regulation under the Marine Protection, Research and Sanctuaries Act;[58] dredge disposal under the Sanctuaries Act and the Clean Water Act; vessel discharge limitations, coral reef management (by Executive Order); marine debris under the Beaches Environmental Assessment and Coastal Health Act of 2000[59] and regulation of atmospheric deposition under the Clean Air Act.[60] EPA's Ocean, Coasts and Estuaries Program website has additional information on EPA's activities.

3.3 State Agencies with Ocean and Coastal Responsibilities

Ocean resource management in California largely falls under the authority of two executive branch agencies, the Resources Agency[61] and the California Environmental Protection Agency (CalEPA)[62]. The Resources Agency oversees budget and related functions for the Department of Boating and Waterways and its commission, the Coastal Commission, the Coastal Conservancy, the San Francisco Bay Conservation and Development Commission, the Delta Protection Commission, the Energy Commission, the Department of Conservation, the State Lands Commission, the State Historical Resources Commission, the Department of Water Resources, the Department Fish and

[57] See 43 U.S.C. § 1337, as amended.
[58] Pub. L. 92-532, 86 Stat. 1052, October 23, 1972. (Title I, the Ocean Dumping Act, is codified at 33 U.S.C. §§ 1401, *et seq.*).
[59] Pub. L. 106-284, 114 Stat. 870, October 10, 2000.
[60] Pub. L. 91-604, 84 Stat. 1676, December 31, 1970. (*Codified at* 42 U.S.C. §§ 7401, *et seq.*)
[61] http://resources.ca.gov/.
[62] http://www.calepa.ca.gov/.

Game and its commission, the Wildlife Conservation Board, and the Department of Parks and Recreation and its commission. Each of these has coastal and ocean related responsibilities as discussed below.

The California Environmental Protection Agency comprises several departments and boards regulating pollution, including the Air Resources Board, the State Water Quality Control Board, the Integrated Waste Management Board, the Department of Toxic Substances Control, and the Department of Pesticide Regulation. An important agency in managing ocean resources is the State Water Quality Control Board (State Water Board) which develops state policies for water quality control and statewide plans for fresh and salt waters within state jurisdiction. The State Water Board and the nine Regional Water Quality Control Boards (Regional Water Boards) also regulate waste discharges to state waters to ensure that water quality is protected.

Other agencies that have management authority but do not directly manage ocean and coastal resources include the Department of Health and Human Services, Department of Food and Agriculture, Department of Forestry, as well as nonprofits, interagency councils, and other entities. Some of the significant functions of these entities and their ocean and coastal responsibilities are discussed below.

3.3.1 Resources Agency of California

Created in 1961 in a reorganization of California State governments, the Resources Agency is one of the so-called "super agencies." The Agency oversees and coordinates the activities and administration of 17 departments, commissions, conservancies and boards, with responsibility for State programs relating to the preservation, management and enhancement of California's natural and cultural resources, including land, wildlife, water, timber, and minerals. The administrative head of the Agency, the Secretary of Resources, serves as a member of the Governor's cabinet and is the Governor’s representative on the Agency's boards and commissions, coordinates State and federal resource management, and supervises departmental fiscal affairs.

Ocean-Related Responsibilities

Pursuant to Assembly Bill 205 (1991), all non-statutory marine and coastal resource programs were transferred to the Secretary of Resources. The duties transferred include all executive branch delegations regarding review and coordination of federal OCS oil and gas lease sales and development projects, policy coordination of resources and uses in the EEZ, State representation on the Coastal States Organization and the Department of the Interior OCS Policy Committee, and participation in other marine and coastal resource issues.

Regarding marine research, the Resources Agency Sea Grant Advisory Panel (RASGAP) participates in a funding and priority-setting process for marine research in the State’s colleges and universities. The State provides funds for marine research in a federal

matching grant process, which seeks to keep California's quality higher education and research institutions in the lead, both statewide and nationally. The RASGAP process provides a critical link with academia by identifying current state agency management needs that will benefit from marine research.

Eleven departments, commissions and boards under Resources Agency purview, have jurisdiction and carry out important management activities, which affect the marine environment.

3.3.2 California Ocean Protection Council

In response to two national Commissions who produced reports in 2003 and 2004 concerned about the deteriorating ocean conditions in U.S. waters, the California legislature passed the Ocean Protection Act, Burton S.B. 1319. A key feature of the act is the creation a Cabinet-level Ocean Protection Council[63] to coordinate ocean governance, scientific research, ocean restoration and pollution prevention.

The Council is tasked with coordinating ocean-related activities in recognition that no one agency is currently responsible for managing this area as a unified resource. The Council is composed of cabinet level officials–the Secretaries of Resources and CalEPA and the chair of the State Land Commission, with two non-voting representatives from the Senate and Assembly respectively. The Council is tasked with establishing policies to coordinate the collection and dissemination of scientific data, coordinating activities of ocean-related state agencies to improve ocean resource protection, and recommending legislative and policy changes for ocean resource management at the state and federal level.

The Council is currently funded by tideland oil revenues. The State Coastal Conservancy and Wildlife Conservation Board have each promised $5 million to be used for ocean-related conservation and restoration. The State Water Resources Control Board has dedicated $10 million of its Proposition 40/50 bond funds to Council-related projects. Activities eligible for funding through the Council include projects that:

- Eliminate or reduce threats to coastal and ocean ecosystems, habitats, and species; Foster sustainable fisheries;
- Improve coastal water quality; Increase public access to ocean and coastal resources; Improve management, conservation, and protection of coastal waters and ocean ecosystems;
- Provide monitoring and scientific data to improve state efforts to protect and conserve ocean and coastal resources;
- Acquire, install or initiate monitoring and enforcement systems;
- Purchase vessels, equipment, licenses, harvest rights, permits, and other rights and property to reduce threats to ocean ecosystems and resources; and

[63] http://resources.ca.gov/copc/.

- Address coastal water contamination from biological pathogens.

In creating the California Ocean Protection Council, California became the first state to implement recommendations of the U.S. Commission on Ocean Policy. As the report states in its concluding chapter "Government agencies will not be able to take on additional responsibilities in implementing a comprehensive national [and state] ocean policy without improved tools and resources." The Council is designed to develop and provide those tools to state, local and tribal governments in order to improve ocean conditions off California's 1,100 mile coastline.

3.3.3 California Bay-Delta Program

The California Bay-Delta Authority[64] was created by the Legislature in 2002 to implement the California Bay-Delta Program, a collaborative effort to improve the quality and reliability of California's water supplies while restoring the San Francisco Bay-Delta ecosystem.

The California Bay-Delta Program is a 30-year plan to address water supply and ecosystem problems in the Bay-Delta and its watershed.[65] More than $850 million has been invested to date in local projects to implement the four parts of the program: improve water quality, restore habitats, strengthen levees and increase water use efficiency. Among the proposed actions under review by Bay-Delta agencies are improvements to water conveyance systems in the South Delta, new operations criteria and biological opinions for the State Water Project and federal Central Valley Project and continued operation of the Environmental Water Account. The actions collectively set the stage for the biggest changes in Bay-Delta operations in more than a decade.

Ocean & Coastal Responsibilities

The Bay-Delta Project directly affects the San Francisco Bay and surrounding regions. The Bay region is the fourth largest metropolitan area in the United States and the second largest in California. The Bay-Delta region drains more than 40 percent of the state and comprises the West Coast's largest estuary. The Bay has lost over 75 percent of its historic wetlands, which serve as habitat for a wide variety of marine species.[66]

The San Francisco Bay supports a variety of ocean-going fish, such as Pacific herring and Chinook salmon. The fish rely on the baylands, but also utilize local streams or deeper portions of the Bay at certain times in their life cycles. Schools of Pacific herring mobilize in deep channels of the Bay and then move toward the shoreline to lay their

[64] http://calwater.ca.gov/.
[65] In August 2000, the Bay-Delta Program issued a Record of Decision (ROD) that set forth a 30-year plan to address ecosystem health and water supply reliability problems in the Bay-Delta. The document laid out specific actions and investments over the first seven years (Stage 1) to meet Program goals. It also described a strategy for implementing the plan and identified complementary actions to be pursued by the Bay-Delta agencies. See http://calwater.ca.gov/Archives/GeneralArchive/RecordOfDecision2000.shtml.
[66] See http://www.bay.org/about_the_bay.htm.

eggs in shallow water. Adult Chinook salmon migrate upstream through the deeper channels of the bays to spawn in the watersheds of the Estuary, and young salmon forage in shallow water habitats on their way to the ocean. Marine mammals, such as the harbor seal and California sea lion, use the baylands at certain times for resting and feeding. In addition, ocean-related birds such as gulls and herons forage in the baylands.

3.3.4 Department of Boating and Waterways

The California Department of Boating and Waterways originated as the Division of Small Craft Harbors under the Department of Natural Resources. It became an independent department in 1966 under the name the Department of Harbors and Watercraft. Pursuant to the Governor's Reorganization Plan of 1969, the Department acquired expanded powers and a new name: the Department of Navigation and Ocean Development. In 1979, it became the Department of Boating and Waterways (DBW).

Associated with DBW since its inception is an independent commission currently named the Boating and Waterways Commission (Commission). The Commission is composed of seven members appointed by the Governor to four-year terms. The primary duty of the Commission is to give advice and consent to: (1) proposals for loans to cities, counties, and harbor districts for the planning and construction of small craft harbors and related facilities; (2) loans to private recreational marina owners for the development, expansion and improvement of recreational marinas; and (3) grants to cities, counties and other governmental agencies for the planning and construction of boat launching facilities.

The Department's programs are primarily designed to fulfill the needs of California's recreational boating community and are paid for out of the recreational boaters' share of the gasoline tax and from boat registration fees. DBW also derives support from various federal funds for a number of its programs, and some General Fund money provides for beach restoration programs. The Department's Boating Operations Program promotes boating safety[67] and education[68]. It provides consumer protection for boaters by licensing and regulating yacht brokers and salespersons, and "for-hire" vessel operators. DBW's Legislative and Regulations Unit adopts and updates State boating regulations and works closely with the state legislature and boating organizations to tailor legislation of interest to the boating public. The Department's Aquatic Weed Control Program conducts

[67] These functions include: compiling accident statistics and annually publishing the California Boating Safety Report; granting funds to public agencies for the removal of abandoned watercraft and substantial navigational hazards from California's waterways and providing funding to local boating law enforcement agencies for personnel, operation, maintenance and equipment costs.

[68] These functions include: providing materials on aquatic and boating safety education at no cost to California's K-12 school curriculum; providing copies of the California Boating Safety Course to the public; providing public outreach at boat shows and through media campaigns; providing a boating law enforcement training program for local boating law enforcement personnel and granting funds to Aquatic Centers that provide classroom and on-the-water boating education.

programs to control the growth of water hyacinth and *egeria densa* in the Sacramento-San Joaquin Delta.

The Department of Boating and Waterways loans funds to cities, counties, and harbor districts for the planning and construction of small craft harbors and related facilities; loans funds to private recreational marina owners for the development, expansion and improvement of recreational marinas; grants moneys to cities, counties, and other governmental agencies for the planning and construction of boat launching facilities, boating trail projects, and vessel sewage pump out facilities. The Department also provides boating instruction and safety centers on State-owned or controlled lands.

Ocean-Related Responsibilities

DBW is not a permitting or regulatory agency, but many of its programs affect the ocean and California's shoreline. For example, it provides loans for small craft harbors and marinas, as well as grants for boat launching facilities and Boating Safety Instruction Centers for facilities located on the ocean. DBW acts primarily as a banker in connection with its loans, but requires that all projects be fully permitted and meet applicable environmental standards.

Two other important ocean-related programs focus on coastal beach erosion and restoration. The beach erosion control statutes, Sections 65 through 67.4 of the Harbors and Navigation Code, discussed in Chapter 10 authorize DBW to study erosion problems; act as shore protection advisor to all agencies of government; and plan, design and construct protective works when funds are provided by the Legislature. Local assistance funds are made available on a matching fund basis. In addition to other permitted projects, Harbors and Navigation Code section 65.7 allows DBW to participate in beach erosion control projects undertaken by the U.S. Army Corps of Engineers pursuant to Section 103 of the Rivers and Harbors Act of 1962, as amended.

A second program, the Public Beach Restoration Program, created in 1999 by Assembly Bill 64[69] provided $10 million for grants to be administered by DBW for beach restoration-related projects and required DBW, along with the State Coastal Conservancy, to submit to the Legislature a report, called the *California Beach Restoration Study*. This report, submitted in 2002, cited the need for continued funding for beach restoration. The initial $10 million has been expended on beach restoration projects. When funds are available, this program allows funding of 85 percent of the nonfederal cost of beach restoration projects.

Other DBW programs affecting the ocean environment include the following: Funding an oceanographer at the Scripps Institute of Oceanography to research beach erosion, wave monitoring and climate changes affecting the ocean. The Vessel Pump-out Program, a grant program that funds the construction, renovation, operation and maintenance of

[69] Public Beach Restoration Act; Harbors and Nav. Code §§ 69.5-69.9 *See* below 5.7 Beach Erosion, Replenishment, and Shoreline Stabilization.

pump out and dump stations to service pleasure craft. This program is federally funded through the Clean Vessel Act.

3.3.5 California Coastal Commission

The 1976 Coastal Act established the California Coastal Commission[70] (Coastal Commission) as the state coastal management and regulatory agency.[71] The Coastal Act followed four years of coastal regulation under Proposition 20, the Coastal Initiative, which was enacted by California voters in 1972. The Coastal Commission is an independent, quasi-judicial state agency that consists of twelve voting members and three non-voting members. The Governor, the Senate Rules Committee, and the Speaker of the Assembly each appoint four voting Commissioners (2 public members and 2 elected local government officials). The non-voting members are the Secretary of the Resources Agency, Secretary of the Business and Transportation Agency and the Chairperson of the State Lands Commission.

Ocean-Related Responsibilities

The Coastal Commission, in partnership with coastal cities and counties, plans and regulates development of land and water in the Pacific Ocean segment of California's coastal zone. Development activities are broadly defined by the Coastal Act to include (among others) construction of structures, divisions of land, and activities that change the intensity of use of land or public access to coastal waters. The area managed, covers an area larger than the State of Rhode Island. On land, the coastal zone varies in width from several hundred feet in highly urbanized areas up to five miles in certain rural areas, and offshore the coastal zone extends out to the three-mile limit of the state's jurisdiction over the ocean. California's coastal zone includes San Francisco Bay, which is overseen by the San Francisco Bay Conservation and Development Commission.

The Coastal Act includes specific policies that are the standards for the regulatory and planning decisions of the Coastal Commission. These policies address issues such as terrestrial and marine habitat protection, water quality, landform alteration, agricultural lands, commercial fisheries, shoreline public access and recreation, visual resources, industrial uses, offshore oil and gas development, transportation, development design, power plants, and public works.

A key provision of the Coastal Act is the requirement that each of the 15 counties and 59 cities located in whole or in part in the coastal zone prepare a local coastal program (LCP). LCPs must first be reviewed and certified by the Coastal Commission pursuant to the standards of the Coastal Act. Once certified by the Commission, an LCP becomes the standard for any development activities in that particular area. An LCP consists of a land use plan (LUP), which may be the relevant portion of the local general plan, and the zoning ordinances, zoning district maps, and other legal instruments necessary to

[70] http://www.coastal.ca.gov/
[71] Pub. Res. Code §§ 30000, *et seq*.

implement the land use plan. To ensure that coastal resources are effectively protected in light of changing circumstances, such as new information and changing development pressures and impacts, the Commission is required to review each certified LCP at least once every five years. The Commission also reviews and certifies similar types of plans for California's ports and universities.

A second key provision of the Coastal Act is that development within the coastal zone may not commence until a coastal development permit has been issued by either the Commission or a local government that has a Commission-certified LCP. After certification of an LCP, coastal development permit authority is delegated to the appropriate local government, but the Commission retains original permit jurisdiction over tidelands, submerged lands and public trust lands. The Commission also has appellate authority over development approved by local governments in specified geographic areas as well as certain other developments.

Another major responsibility of the Coastal Commission is to review federal activities for consistency with the state's Coastal Management Program for the portion of the coast outside the San Francisco Bay area. The federal Coastal Zone Management Act gives state coastal management agencies regulatory control over all federal activities and federally licensed, permitted or funded activities, whether inside or outside of the coastal zone, if the activity affects coastal resources. Examples of such federal activities include: outer continental shelf oil and gas leasing, exploration and development; designation of dredge material disposal sites in the ocean; military projects at coastal locations; U.S. Army Corps of Engineers fill permits; certain U.S. Fish and Wildlife Service permits; national park projects; highway improvement projects assisted with federal funds; and commercial space launch projects on federal lands. The Coastal Commission's review of federal activities for consistency with the Coastal Act is an important coastal management tool and is typically the state's only opportunity to review and influence federal activities that affect coastal resources.

The Commission's permit, planning, federal consistency review and other policy decisions are made at monthly public meetings. These meetings are three to five days in length and are held in different locations throughout the state. Prior to each meeting, Commission staff collects and analyzes information pertinent to meeting agenda items and prepares written staff reports with recommendations for Commission action. These staff reports are available for public review, by contacting the appropriate Commission office. Selected staff reports are also available electronically on the Commission's website.[72]

The Commission also plays a significant role in implementing the state's non-point source pollution control program as co-lead with the State Water Board. The program addresses CZMA and Clean Water Act requirements through the actions and authorities of 28 state agencies. In the coastal zone, the Commission works to minimize the impacts of development on coastal waters. Statewide, the Commission leads other agencies in the

[72] http://www.coastal.ca.gov/mtgcurr.html.

development of policy recommendations for various land uses (e.g., wetlands, marinas, urban), works to track statewide plan implementation and promotes program initiatives such as: non-point education for municipal officials (NEMO); focused watershed planning and non-point program implementation for vulnerable parts of our coast (Critical Coastal Area program) and development of coastal volunteer monitoring resources.

The Commission works to educate the public on numerous coastal resource issues through various kinds of public education programs. These programs include the annual, statewide Coastal Clean-up Day event, the "Adopt-A-Beach" program, and the Community-Based Restoration and Education Program at Upper Newport Bay, all of which engage the public directly in coastal resource protection and enhancement. The Commission also administers the Whale Tail License Plate Grants Program, in which monies from sales of whale-tail license plates are given as grants to non-profit organizations and governmental entities for education programs aimed at communities that are poorly served in terms of marine and coastal education. The Commission has also developed a science activity guide that addresses marine debris, non-point source pollution, endangered species, coastal processes, and other issues of importance to the coast and ocean. The guide is aligned to the state science content standards for grades 3-8, and includes community service lessons adaptable for all grades. Other programs include a clean boating campaign, and the Plastic Debris: Rivers to Sea Project, which seeks to address the land-based sources of marine debris.

3.3.6 California Coastal Conservancy

The California Coastal Conservancy[73] was established in 1976 as part of the California Coastal Act. The Coastal Conservancy uses its grant and contract making authority to purchase, protect, restore, and enhance coastal and marine resources, and to provide access to the ocean. The Conservancy typically works in partnership with local governments, other public agencies, nonprofit organizations, and private landowners to provide enhanced protection and understanding to coastal and ocean resources. The Legislature created the Coastal Conservancy as a unique entity with flexible powers to serve as an intermediary among government, citizens, and the private sector in recognition that creative approaches would be needed to preserve California's marine and coastal environment. The Coastal Conservancy's non-regulatory, problem-solving approach complements the work of the California Coastal Commission, and the San Francisco Bay Conservation and Development Commission.

The Coastal Conservancy has been undertaking coastal protection and restoration activities since its inception in 1976. Since that time, it has completed more than 1000 projects, with over 300 projects currently active. These projects include removal of abandoned and derelict fishing gear that continue to "ghost fish" and destroy bottom habitat; funding pilot programs to restore oyster and eel grass areas that are important to fish rearing and water quality improvement; purchasing and improving coastal wetlands

[73] http://www.coastalconservancy.ca.gov/.

and other fish habitation; supporting recreational and commercial fishing operations along the coast as well as other projects in line with the goals of California's Coastal Act, the San Francisco Bay Plan, and the San Francisco Bay Area Conservancy. In addition, the Conservancy has helped preserve more than 100,000 acres of wetlands, dunes, wildlife habitat, recreational lands, farmland, and scenic open space; helped build more than 300 access ways and trails, including major portions of the California Coastal Trail and the San Francisco Bay Trail, thus opening more than 80 miles of coastal and bay lands for public use; assisted in the completion of over 100 urban waterfront projects; retired more than 600 inappropriately planned subdivision lots; joined in partnership endeavors with more than 100 local land trusts and other nonprofit groups, making local community involvement an integral part of the Coastal Conservancy's work; and completed projects in every coastal county and all nine San Francisco Bay Area counties.

Coastal and Ocean Responsibilities

Coastal Conservancy projects are designed to protect and improve coastal wetlands, streams and watershed, to accept and develop public access ways to the coast, to improve trails, easements and low-cost accommodations along the coast with the aim of enhancing the public's access to and appreciation of California's coastal and ocean resources. Part of the Conservancy's mandate is to accept donations of land for public access, open space, and wildlife preservation. The Conservancy works with local communities to revitalize and support urban waterfront activities, solve complex land-use problems which require coastal restoration, and provide public education and outreach concerning marine and coastal watershed environments.

In 2002, the legislature amended the Conservancy's enabling legislation to allow protection and enhancement of marine resources. Under Chapter 5.5 of Division 21, Public Resources Code, the Conservancy can undertake projects that reduce contamination in coastal and near shore waters; protect and restore marine and coastal fish habitat; reduce threats to these fish populations; restore coastal erosion and sedimentation cycles; protect sensitive marine areas; reduce demographic and economic pressures on marine resources and provide education and nature centers to increase the public's awareness and appreciation of these precious resources.

In 2004, the Ocean Protection Act identified the Executive Officer of the Conservancy as Secretary to the Ocean Protection Council[74] and the Conservancy staff currently works for the Council. Since its first meeting in March of 2005, the Conservancy has provided staff and informational resources to the Council to further the Ocean Protection Act's purposes of protecting and conserving California's ocean resources. Also in 2005, the Conservancy's enabling legislation was amended to allow it to provide project and policy support to the Ocean Protection Council.

[74] Pub. Res. Code § 35625.

3.3.7 DEPARTMENT OF CONSERVATION

The Department of Conservation[75] (DOC) administers or supports a number of programs designed to promote orderly growth and land use in coordination with the state's agricultural sector and to identify geologic hazards and resources throughout the state to protect public health and safety. The Department oversees conservation contracts for the preservation of agricultural and open space lands. The Department uses a range of voluntary programs to help meet individual agricultural needs, including property tax incentives, grants for the purchase of agricultural conservation easements, and funding for conservation projects conducted by Resource Conservation Districts (RCDs). In addition, the Department of Conservation provides technical assistance for assessing agricultural lands, soil conservation, and farmland mapping and monitoring.

Established in 1880 as the State Mining Bureau, converted to the Division of Mines in 1927, renamed the Division of Mines and Geology in 1962, and officially renamed the California Geological Survey (CGS) in 2006, CGS provides scientific products and services about the state's on- and offshore geology, seismology and mineral resources, including their related hazards, that affect the health, safety, and business interests of the people of California.

Ocean & Coastal Responsibilities

The DOC's Division of Oil, Gas & Geothermal Resources supervises drilling, operation, maintenance, and abandonment of on- and offshore oil and gas wells, and operation, maintenance, and removal or abandonment of oil and gas tanks and facilities. The Division of Oil, Gas, and Geothermal Resources has regulatory authority over offshore extraction and has regulatory authority over plugging and abandonment operations on wells.

The Department is also involved in providing grants to conserve sensitive coastal habitat and agricultural lands. The DOC's Office of Land Conservation also works closely with the USDA Natural Resources Conservation Service (formerly the Soil Conservation Service) and California's Resource Conservation Districts to address watershed, soil erosion, and non-point source pollution problems, all of which significantly affect the resources of the coastal and ocean environment.

The Division of Recycling administers the California Beverage Container Recycling and Litter Reduction Act, which calls for establishment of a comprehensive and large-scale beverage container-recycling program. Recycling assists in reducing the number of these containers on State beaches or being disposed of at sea.

[75] http://www.conservation.ca.gov/index/ .

Operating under Public Resources Code Section 2201 (a) and (b), California Geological Survey conducts mapping and interpretation of statewide geology and associated mineral resources and geologic hazards, and are mandated to maintain a state-wide geologic database and provide consulting to federal, state and local government agencies. They produce geologic maps of coastal and offshore areas that resolve disparities between researchers of adjacent areas producing a consistent product that can be used with confidence by coastal managers and regulators in assessing baseline conditions. Section 2205 provides for CGS to identify and delineate raw mineral deposits (e.g., sand and gravel) to prevent their loss and assist in their ultimate utilization, and to enter into cooperative agreements with cities, counties, federal agencies and universities for mineral investigations. CGS's Continental Margin Series (1986-1989) provided the first comprehensive compilation of known offshore geology. More recently, on/offshore geologic maps have been compiled at the best available mapping scale (typically 1:24,000) for the Monterey area, San Diego, Oceanside and Long Beach.[76] The mapping provides needed information for coastal and oceanic habitat identification. Mineral assessments provide information needed for beach restoration, whether it is material removed from the natural system before it reaches the coast, determination of volumes available for sediment budgets, or identification of on/offshore deposits viable for replacement of sand lost to coastal erosion.

3.3.8 California Energy Commission

The California Energy Commission[77] (CEC) is the state's primary energy policy and planning agency. Created by the Legislature in 1974 and located in Sacramento, the Commission's major responsibilities are: Formulating energy policy; Forecasting future energy needs and keeping historical energy data; Licensing thermal power plants 50 megawatts or larger; Promoting energy efficiency through appliance and building standards as well as consumer education; Developing energy technologies and supporting renewable energy; Administering Renewable Portfolio Standard and Buy Down Programs; Planning for and directing state response to energy emergency.[78] SB 1389 (Bowen, 2002) directs the Energy Commission "to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety."[79] SB 1389 also directs the Energy Commission to prepare an Integrated Energy Policy Report (IEPR) addressing major energy trends and issues, including impacts on resources and the environment. The Energy Commission adopts and transmits these findings to the Governor and Legislature every two years. [80]

With the signing of the Electric Industry Deregulation Law in 1998 (AB 1890), the Commission's role includes: overseeing funding programs that support public interest

[76] The maps are available at www.consrv.ca.gov/cgs/index.htm.
[77] http://www.energy.ca.gov/
[78] See Public Res. Code §§ 25000 *et seq.*
[79] Public Res. Code § 25301.
[80] Public Res. Code §§ 25300 et seq.

energy research; advancing energy science and technology through research, development and demonstration; and providing market support to existing, new and emerging renewable technologies.

The Governor appoints the five members of the Commission to staggered five-year terms and selects a chair and vice chair from among the members every two years. The Commission nominates and the Governor also appoints a Public Advisor, for a term of three years, who is responsible for ensuring and facilitating the participation of the public and all interested parties in all Commission proceedings.

Ocean-Related Responsibilities

Power plant Siting

The CEC has a primary role in the siting of coastal or offshore thermal power plants in California. Established through provisions in the Warren-Alquist Act, the Coastal Act, and the McAteer-Petris Act, the CEC is the agency that considers applications for certification of new power plants located within California's Coastal Zone. Although the Coastal Commission and San Francisco Bay Conservation and Development Commission maintain key roles, the authority to certify coastal power plants rests with the CEC.

Under Public Resources Code §25302(a), CEC staff prepares a biennial environmental performance assessment of the state's entire 62,000 MW power generation system. Each of the reports for 2001, 2003 and 2005 identify once through cooling and its associated environmental impacts as an area of ongoing concern.

Renewable Energy

California is the world's fifth largest consumer of energy and ranks third in gasoline consumption behind the whole United States and the former Soviet Union. Today, California is a world leader in electricity created by renewable energy resources and has been at the forefront in energy efficiency. The renewable energy industry can be credited with providing 30,000 jobs and generating $2 billion in tax revenues for the state. Directing how such a nation-state uses its energy has been the purpose of the California Energy Commission for more than a quarter of a century. The Warren-Alquist Act allows funding assistance for renewable technologies, which include: ocean wave, ocean thermal and tidal current technologies.[81]

Liquefied Natural Gas in California

According to the U.S. Energy Information Agency, the United States, including California, needs to consider developing additional supplies of natural gas to meet its growing demand. Because North American supply basins are maturing, the U.S. will need to rely more on imported supplies, including liquefied natural gas. Liquefied

[81] Pub. Res. Code § 25740 *et seq*.

natural gas, or LNG, is natural gas in a liquid form. California imports 85 percent of its natural gas supply from these supply basins. Currently, the United States has five LNG-receiving and regasification terminals, including one in Puerto Rico, but no terminal is located on the West Coast. Recently, a number of companies have proposed to build LNG import facilities in California, at other locations in the United States, and in Baja California, Mexico.[82]

Climate Change and Water Usage

The Commission also evaluates and makes recommendations to the Governor and the legislature concerning California energy usage and its effect on global climate change. The Commission oversees the work of the California Climate Change Center Report Series.[83] For example, a 2003 report to the Commission evaluated the effect of global warming on water planning and management, sea level rise, modification of existing coastal power plants, new power supply options, demand, management and conservation of energy and economics, prices and market effects. The study concluded that a "more comprehensive assessment of all of these areas, supported by multiple state agencies and including the participation of a wide range of stakeholders, could be a valuable tool for policymakers and planners."[84] The Commission also studies the effect of siting desalinization plants along California's coast.[85]

3.3.9 Department of Fish and Game

Established prior to the California Constitution, California's Fish and Game Commission[86] (FGC) was formally created in Article 4, Section 20 of the constitution. The Department was made a part of the Resources Agency in 1970.[87] The DFG maintains native fish, wildlife, plant species and natural communities for their intrinsic and ecological value and their benefits to people. This includes habitat protection and maintenance in a sufficient amount and quality to ensure the survival of all species and natural communities. The Department is also responsible for the diversified use of fish and wildlife, including recreational, commercial, scientific and educational uses. The DFG is responsible for protecting, managing, and enhancing fish, wildlife, and native plant resources of California. The DFG's authority regarding California's living marine resources was established in State law by the California Legislature (Fish and Game Code and Public Resources Code), in State regulations by the California Fish and Game Commission (Title 14, California Administrative Code), and through various federal

[82] Recent changes to the Natural Gas Act (15 U.S.C. § 717) give exclusive jurisdiction to the Federal Energy Regulatory Commission over the siting of liquefied natural gas facilities. See Energy Policy Act, P.L.109-58, § 311. The Act also contains saving clauses for state authority pursuant to the Coastal Zone Management Act, Clean Air Act and Clean Water Act. 15 U.S.C. § 717b(d).
[83] See California Climate Change Portal at http://www.climatechange.ca.gov/
[84] Michael Kiparsky and Peter H. Gleick, *Climate Change and California Water Resources: A Survey and Summary of the Literature* (2003).
[85] *Id.*
[86] http://www.fgc.ca.gov/ .
[87] Fish & Game Code § 700.

statutes. General policies for the conduct of the Department are formulated by the Fish and Game Commission, and the director is to be guided by those policies and is to be responsible to the commission for the administration of the Department in accordance with those policies.[88]

Ocean Related Responsibilities

The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. The Department is trustee for fish and wildlife resources, and has jurisdiction over the state's marine fish.[89] The Department and the Fish and Game Commission are the principal state agencies responsible for the establishment and control of wildlife and fishery management programs, including those within the coastal zone established by the California Coastal Act.[90] In addition, specific duties of the Department include issuing all licenses, permits, and license tags authorized by the Fish and Game Code, and prescribing the terms and conditions under which license tags, reservations, or applications are to be issued and establishing and maintaining fish hatcheries. Included within the Department are a Commercial Salmon Fishing Review Board[91] and a Wildlife Conservation Board (WCB). As part of the Wildlife Conservation Law of 1947,[92] the WCB is responsible for determining what areas within the state are suitable for wildlife and game propagation, refuges, and fish hatcheries, and what streams and lakes are suitable for fishing, hunting, and shooting.[93]

Marine Mammals

The Department is also responsible for state enforcement of regulations related to marine mammals under state law. Whales and other marine mammals are subject to regulatory prohibition against taking,[94] shooting[95] or otherwise violating the federal Mammal Protection Act of 1972.[96]

Endangered and Other Species

The Fish and Game Commission is responsible for identifying endangered and threatened species and enforcing the California Endangered Species Act (CESA).[97] CESA requires:

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[88] Fish & Game Code §703(a).
[89] Fish & Game Code §711.7, 1802; *People v. Weeren* (1980) 26 Cal.3d 654, *cert. denied* 449 U.S. 839 (1980).
[90] Pub. Res. Code § 30411(a).
[91] Fish & Game Code §§ 8230, *et seq.*
[92] Fish & Game Code §§1300, *et. seq*,
[93] Fish & Game Code §§ 1345, *et seq.*
[94] Fish & Game Code § 4500.
[95] See Fish & Game Code § 3002, *et seq.*
[96] Penal Code § 653o.
[97] Fish and Game Code § 2050, *et seq.* CESA sets forth a two-step process by which the Commission determines whether to list a species as endangered or threatened (unless the Commission finds there is an

that state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat that would prevent jeopardy;[98] that reasonable and prudent alternatives must be developed by the DFG, together with the project proponent and the state lead agency;[99] and that all state agencies, boards, and commissions shall seek to conserve endangered and threatened species and shall use their authority to do so.

A number of other statutes are directed at wildlife conservation and the protection of native species (including fish and wildlife protection): [100] the Native Species Conservation and Enhancement Act[101]; the Endangered and Rare Fish, Wildlife, and Plant Species Conservation and Enhancement Account (to support programs for endangered and rare animals and native plant species[102]); restrictions on importation, transportation, and sheltering of restricted wild animals;[103] and habitat maintenance funding.[104]

Marine Life Management Act of 1998

In enacting the Marine Life Management Act of 1998 (MLMA), the Legislature declared that the Pacific Ocean and its rich marine living resources are of great environmental importance to the people of California, and that it is the policy of the state "to ensure the conservation, sustainable use, and, where feasible, restoration of California's marine living resources for the benefit of all the citizens of the state."[105] The objectives of this policy include to "conserve the health and diversity of marine ecosystems and marine living resources," and to "allow and encourage only those activities and uses of marine living resources that are sustainable."[106] The MLMA mandated ecosystem based management of ocean fisheries, and established a process for such management.

Marine Life Protection Act of 1999

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emergency--see § 2076.5). In the first step the Commission determines whether a species is a candidate for listing by determining whether the petition--when considered with the Department's written report and the comments received--provides sufficient information to indicate that endangered or threatened listing "may be warranted." An endangered or threatened species generally cannot be imported, exported, possessed, bought, sold or taken. (§ 2080) If proper notice is given, these protections extend to candidate species as well. (§ 2085; see § 2074.4) However, subject to the terms and conditions it prescribes, the Commission may authorize the taking of any candidate species. (§ 2084)

[98] *Id.* at § 2053.

[99] *Id.*

[100] Fish & Game Code §§ 1600, et. seq.

[101] Fish & Game Code §§ 1750 et seq.

[102] Fish & Game Code §§ 1770 et seq.

[103] Fish & Game Code §§ 2116 et seq.

[104] Fish & Game Code §§ 2900, 2901.

[105] Fish & Game Code § 7050(b).

[106] Fish & Game Code § 7050.

The 1999 Marine Life Protection Act (MLPA) directed the state to design and manage a network of marine protected areas in order to, among other things, protect marine life and habitats, marine ecosystems, and marine natural heritage, as well as improve recreational, educational and study opportunities provided by marine ecosystems. Marine protected areas include state marine reserves, state marine parks and state marine conservation areas. The MLPA seeks to protect "the diversity of species and ecosystems found in the state's ocean waters" because this "is important to public health and well-being, ecological health, and ocean-dependent industry," and to provide "a comprehensive effort to sustain marine habitats and fisheries."[107] Because the MLPA could not be implemented as quickly as intended, the Department has focused on prioritizing those program components that can be effectively implemented now, and completing the remaining components in later phases. The Department of Fish and Game is partnering with the Resources Agency and Resources Legacy Fund Foundation and others to achieve these goals. This public-private partnership will be guided by the advice of scientists, resource managers, experts, stakeholders and members of the public.[108]

Office of Oil Spill Prevention and Response

The Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (OSPRA) of 1990 created the Office of Oil Spill Prevention and Response[109] (OSPR) within the DFG as the lead State agency charged with oil spill prevention and response. The OSPR Administrator has substantial authority to direct spill response, cleanup, and natural resource damage assessment activities. Although OSPR is the lead State agency for oil spill prevention and response, this responsibility is shared with 22 agencies represented on the State Interagency Oil Spill Committee (SIOSC). The Administrator chairs the SIOSC and the SIOSC Review Subcommittee. OSPR is involved in a variety of programs to prevent spills in the marine environment or other substance injurious to fish, plant life, mammals, or bird life.[110]

OSPR most recently completed its Wildlife Response Plan in June 2005, as required under the National Contingency Plan for Oil Spills, the Federal Oil Pollution Act (OPA) of 1990.[111] In most respects, the fish and wildlife provisions of California's OSPRA[112] parallel or exceed the federal OPA provisions for fish and wildlife protection during spill responses. Under the state act, the OSPR Administrator must develop contingency plans for the protection of fish and wildlife, assess injuries to natural resources, establish rescue and rehabilitation stations for oiled marine wildlife, and require restoration plans for wildlife resources including habitat following spills. The state act also provides for the establishment and funding of the Oiled Wildlife Care Network as an essential component

[107] Fish & Game Code § 2851.
[108] For additional information and current events surrounding the MLPA initiative see http://www.dfg.ca.gov/mrd/mlpa/index.html.
[109] http://www.dfg.ca.gov/ospr/.
[110] See Fish & Game Code § 5060, *et seq.*
[111] 33 U.S.C. § 1321(d)(2)(M); 40 CFR Part 300, § 300.210.
[112] Gov't Code §§ 8574.7, 8670.37.5.

of California's wildlife response capability.[113] In addition, the OSPR Administrator has a statutory mandate to "ensure that, as part of the response to any significant spill, biologists or other personnel are present and provide any support and funding necessary and appropriate for the assessment of damages to natural resources and for the collection of data and other evidence that may help in determining and recovering damages."[114]

3.3.10 Fish and Game Commission

The California Fish and Game Commission[115] is considered a separate entity from the Department of Fish and Game, though the Department provides support to the Commission. The Commission has been involved in the management and wise use of California's fish and wildlife resources since the 1800s. [116] It is composed of up to five members, appointed by the Governor and confirmed by the Senate. The Commissioners are not full-time State employees, but individuals involved in private enterprise with expertise in various wildlife-related fields. They have a staff of eight employees, who handle day-to-day administrative activities. The Commission meets at least eleven times each year to discuss publicly various proposed regulations, permits, licenses, management policies and other subjects within its areas of responsibility. It also holds a variety of special meetings to obtain public input on items of a more localized nature, requests for use permits on certain streams or establishment of new ecological reserves.

3.3.11 Department of Parks and Recreation & State Parks Commission

The predecessor to California Department of Parks and Recreation[117] (DPR) was created by the California State Legislature in 1928. The mission of the DPR is to provide for the health, inspiration, and education of the people of California by helping to preserve the State's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreational experiences. The Public Resources Code directs the DPR to manage the State Park System "as a composite whole in order to restore, protect, and maintain its native environmental complexes." The DPR manages a variety of units along the coast including State reserves, underwater parks, and State beaches. Some coastal units are operated by local governments.

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[113] Gov't Code § 8670.37.5.
[114] Gov't Code § 8670.7 (g)(2).
[115] http://www.fgc.ca.gov/.
[116] "In the late 1800s, wildlife issues were handled by the Board of Fish Commissioners. The early law was enforced by Fish and Game Wardens. These Wardens were variously funded either from state or local government. In 1909, the Board was renamed to the more familiar Fish and Game Commission. In 1926, the Commission created a pollution bureau, and in 1927, the Division of Fish and Game was created separate from the Commission. This entity became the Department of Fish and Game in 1951." John Turner, Hal Thomas, Ryan Todd, & Eugene Toffoli, *Water, Life's Key Ingredient for Fish and Wildlife, Fish and Game News*, Fall 2004 p 6 (available at http://www.dfg.ca.gov/ospr/organizational/admin/news/osprnews/OSPR%20NEWS%20Fall%202004.swf).
[117] http://www.parks.ca.gov/

Ocean-Related Responsibilities

The DPR acquires coastal lands for resource preservation purposes and park and recreational uses. General planning activities for coastal units determine through a public land use planning process how resources will be protected and parks developed and utilized. The DPR and the California State Park and Recreation Commission designate for resource preservation valuable coastal areas as parks, reserves, or preserves, while permitting more intensified recreation in designated State Beaches. Resource management programs of the DPR address long-term management issues such as monitoring the impacts of over-use, exotic species invasion, overfishing, anchoring, and other near-shore activities.

The DPR manages 11 parks, beaches and reserves with underwater areas, totaling more than 9,957 acres. The DPR manages and provides opportunities for coastal recreation along 264 miles of ocean frontage, or about 24% of the California coastline, serving more than 43 million visitors each year. The DPR also conducts marine research within coastal and underwater areas with assistance from other programs, such as the Sea Grant programs in California.

3.3.12 Department of Water Resources

The California Department of Water Resources[118] (DWR), established in 1956,[119] protects, conserves, develops and manages California's water supplies in cooperation with other agencies. Specifically, the Department plans, constructs, operates and maintains facilities of the State Water Project; evaluates current and projected statewide water needs; protects the public through water quality improvement, flood control and dam safety programs; and assists local water agencies with funds, expertise, and technical support to improve water supply reliability.

The Department establishes strategies in order to increase the amount of water available for municipal users and for fish and wildlife protection and enhancement. For instance, in cooperation with Federal, State, and local agencies, the Department encourages and finances water conservation, the use of recycled water, and the conjunctive use of surface and ground water; facilitates voluntary water transfers; and when needed, operates a State drought water bank. The Department is advised by the Water Commission, which makes recommendations to the Director of Water Resources on matters within its jurisdiction.[120]

Ocean-Related Responsibilities

The water supply activities of the DWR have direct impacts on water quality and quantity in the Bay/Delta Estuary and the near-shore ocean. The DWR conducts and coordinates water conservation and management programs and operates the State Water Project.

[118] http://wwwdwr.water.ca.gov/
[119] Water Code § 120.
[120] Water Code § 161.

Freshwater flowing into the estuary and marine environment affect water quality, which in turn affects anadromous and estuarine fish and their food supplies. In addition, the DWR coordinates the San Joaquin Valley Drainage Implementation Program, which is directed at reducing any drainage-related impacts to the river and Bay/Delta.

In the San Francisco Bay, the DWR participates with other agencies in monitoring changes in water quality and fisheries resources of the Bay/Delta system and in the Bay Area/San Joaquin Valley Water reuse study. DWR staff works with other agencies to measure routinely such physical and biological variables as water levels, wind, salinity, and the distribution and abundance of fish. These data are used by management agencies to determine the need for, and compliance with, water quality and operational standards to protect estuarine environment standards.

Additionally, the DWR monitors ocean water desalting proposals, works with local agencies to determine the extent of seawater intrusion into coastal aquifers, and conducts monitoring to help determine changes in sea level and quality and quantity of reclaimed water released to the ocean.

3.3.13 San Diego River Conservancy

The San Diego River Conservancy[121] was established by the legislature to acquire and manage public lands along the San Diego River. The state conservancy, the first in San Diego County, will provide recreational opportunities, open space, wildlife habitat and species protection, wetland protection and restoration, and protection and maintenance of the quality of the waters in the San Diego River, the protection of land and natural resources, as well as economic resources of the area. Governed by an appointed board of nine voting and two non-voting members, it is a state agency subject to the rules of the State of California.

Ocean-Related Responsibilities

To the extent that the San Diego River Conservancy is seeking to provide wetland restoration and protection of water quality, it can have a direct positive impact on ocean condition in San Diego County. Runoff contains a variety of metals, oils, trash, fertilizers, herbicides, pesticides, and bacteria from human and animal waste, which harms the general hydrology of the River by increasing stream bank erosion, degrading benthic habitat, poisoning sediment, decreasing aquatic diversity, and limiting recreational opportunities. As more contaminants are added from diverse sources along the River, the cumulative effect on water quality intensifies as it travels through the watershed on its journey to the ocean.[122]

[121] http://sdrc.ca.gov/
[122] John Minan, *The San Diego River: A Natural, Historic, and Recreational Resource*, 41 SAN DIEGO L.R. 1139, 1151 (2004).

3.3.14 San Francisco Bay Conservation and Development Commission

The San Francisco Bay Conservation and Development Commission[123] (BCDC) was the first coastal management agency in the country, established as a result of a grassroots effort to stop uncontrolled filling of the Bay. The McAteer-Petris Act was passed in 1965 to establish BCDC as a temporary state agency. [124] The Commission was charged with preparing a plan for the long-term use of the Bay and regulating development in and around the Bay while the plan was being prepared. The *San Francisco Bay Plan*, completed in January 1969, includes policies on issues critical to the wise use of the Bay ranging from ports and public access to design and transportation. The Bay Plan also contains maps of the entire Bay which designate shoreline areas that should be reserved for water-related purposes such as ports, industry, public recreation, airports, and wildlife refuges. In August 1969, the McAteer-Petris Act was amended to make BCDC a permanent agency and to incorporate the policies of the Bay Plan into state law. In 1977 the Commission's authority was expanded to provide special protection of the Suisun Marsh by the enactment of the Suisun Marsh Preservation Act. Thereafter, the Commission approved the *Suisun Marsh Protection Plan*[125] that contains policies to guide development in the marsh's sloughs and wetlands, duck clubs, and agricultural lands.

BCDC is governed by a 27 member Commission. Nine of its members are elected officials representing each of the nine Bay Area counties. Seven members represent the public in the Bay area, five of whom are appointed by the Governor, while the Speaker of the Assembly and Senate Rules Committee each appoint one member. One representative is appointed each by the U.S. Army Corps of Engineers, the federal Environmental Protection Agency, the State's Secretary of Business, Transportation and Housing, Director of Finance, Secretary of Resources, State Lands Commission, and Regional Water Quality Control Board. Four members are appointed by the Association of Bay Area Governments (representing residents of bayside cities located in the north, east, south and west Bay regions).[126]

Ocean-Related Responsibilities

BCDC is the federally-designated state coastal management agency for the San Francisco Bay segment of the California coastal zone. This designation empowers the Commission to use the authority of the federal Coastal Zone Management Act to ensure that federal projects and activities are consistent with the policies of the Bay Plan and state law. While the portion of the state's coastal zone within San Francisco Bay and the Suisun Marsh are overseen by BCDC, the portion of the state's coastal zone located along the Pacific coast is overseen by the California Coastal Commission. The Coastal Commission

[123] http://www.bcdc.ca.gov/
[124] Gov't Code §§ 66600, *et seq*.
[125] Available at http://www.bcdc.ca.gov/index.php?p=79&more=1&page=1.
[126] Gov't Code §§ 66630, *et seq*.

and the San Francisco Bay Conservation and Development Commission are independent departments. Neither has policy or regulatory oversight over the other.

The BCDC is charged with preserving and enhancing the natural resources of the San Francisco Bay, while at the same time authorizing its development including the placement of fill, extraction of materials and changes in use. To accomplish this goal, the McAteer-Petris Act has conferred upon BCDC jurisdiction over several aspects of the Bay's coastal zone: the Bay, including open water up to mean high tide, tidal marshes up to five feet above mean sea level, and tidal sloughs; certain tributaries to the Bay; a 100-foot-wide shoreline band; salt ponds and managed wetlands; and priority use areas on the shoreline. Further, the Suisun Marsh Preservation Act confers permit authority to BCDC for development in the primary management of the Suisun Marsh (primarily wetlands), and appeal authority over local government approvals for projects in the secondary management area of the Suisun Marsh (primarily agricultural lands). BCDC is also charged with preparing policies to govern Bay development.

A key element to BCDC's regulatory program under the McAteer-Petris Act- is permitting Bay fill only when the public benefits clearly exceed public detriment from the loss of the water areas, and when the fill will be used for water-related uses (such as ports, marinas and wildlife refuges). BCDC must also determine that the amount of fill is the minimum necessary, and that the fill will be constructed in accordance with sound safety standards to address hazards such as earthquakes and floods, among other findings.

BCDC also regulates the extraction of material from the Bay, including sand mining and the dredging of harbors and navigation channels, ensures that the disposal of dredged material is beneficially re-used when possible, and ensures that disposal will not result in harm to the Bay's resources.

Another important power of the Commission is ensuring that maximum feasible public access to the Bay is provided consistent with all new development situated within the 100-foot-wide shoreline band. As a result of this effort, formerly inaccessible or dangerous waterfront land has been renovated and the public's access to the Bay shoreline has increased from four miles in 1965 to over 200 miles today.

BCDC has an enforcement program that focuses on resolving illegal activity that harms Bay resources or that impairs public access. The Commission collects fines and civil penalties in the resolution of most cases.

BCDC administers the federal Coastal Zone Management Act within the San Francisco Bay segment of the California coastal zone to ensure that federal projects (or federally authorized or funded activities) are consistent with state law and policies that are embodied in BCDC's federally approved management plan for the Bay. Federal activities include closure and transfer of ownership of military bases on the Bay that are designated as priority use areas in the Bay Plan and dredging the federal shipping channels.

California's McAteer-Petris Act recognizes the *San Francisco Bay Plan* (Bay Plan) as containing findings and policies about the Bay and its development, and requires BCDC to make permit decisions that comply with the Bay Plan. The Bay Plan sets forth findings and policies on the Bay's resources including fish and wildlife, water quality, water surface, area and volume, marshes and tidal flats, fresh water inflow, dredging and shell deposits, among others. The Bay Plan also addresses shoreline development with findings and policies on economic and population growth, safety of fills, water related industries, airports, salt ponds, transportation and public access, among others. The Bay Plan maps identify areas of the Bay shoreline that are prioritized for use by ports, water-related industry, waterfront parks, and wildlife refuges. Working with several local governments, BCDC has also developed special area plans that more specifically address local issues as they relate to McAteer-Petris Act requirements. As a regional planning agency, BCDC updates these policies and undertakes research and proposes policies to address emerging issues pertinent to the protection of natural resources and development of the Bay. For example, planning efforts in 2005 and 2006 include amendments to the Bay Plan's policies on recreation, mitigation, and fish, aquatic organisms and wildlife.

BCDC prepares and updates the San Francisco Bay Area Seaport Plan, which forecasts growth of marine cargoes and the need for additional port facilities through 2020, and identifies sites where these needs can be met with minimal Bay fill and harm to the Bay's resources. In updating the Seaport Plan, BCDC convenes the Seaport Planning Advisory Committee.

BCDC's permit, enforcement, planning, and federal consistency review decisions are made at regular public meetings. Prior to each meeting, Commission staff collects and analyzes pertinent information and prepares written staff reports and recommendations for Commission action. The agendas, staff reports and recommendations are available for public review by contacting the Commission's office and are also available on the Commission's website.

BCDC is the lead participant in the Long Term Management Strategy to develop a 50-year dredging and dredged material disposal strategy for the Bay. The goals of this effort, in cooperation with the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, EPA and state Department of Fish and Game, are to maintain navigation channels in an economically and environmentally sound manner; to beneficially re-use dredged materials; and to establish a cooperative permitting framework among agencies. BCDC also participates in the Dredged Material Management Office, a joint program among state and federal agencies that regulate dredging and disposal of material in San Francisco Bay. The goal of this interagency group is to increase efficiency and coordination between the member agencies and to foster a comprehensive and consolidated approach to handling dredged material management issues such as sediment quality.

BCDC has several other mandated or cooperative projects in concert with other agencies. Those include: participating in California's oil spill prevention and response planning

program; coordinating the Harbor Safety Committee; with NOAA Fisheries, working on the prevention of non-point source pollution in the Bay Area; through a joint agreement with the Metropolitan Transportation Commission and the Association of Bay Area Governments, staffing and supporting the Regional Airport Planning Committee; participating in the San Francisco Bay Estuary Project; and planning for the siting of power plants and facilities around the Bay.

3.3.15 Santa Monica Mountains Conservancy

The Santa Monica Mountains Conservancy[127] was established by the California State Legislature to undertake projects that implement the park, recreation, conservation, and open-space within the Santa Monica Mountains zone. The Conservancy consists of nine voting members, three ex officio members and six legislative members. This policy-making entity for the Conservancy is broadly representative of state, regional, and local interests. A twenty-six member Advisory Committee meets jointly with the Conservancy. The Santa Monica Mountains Conservancy has helped to preserve over 55,000 acres of parkland in both wilderness and urban settings, and improved more than 114 public recreational facilities throughout Southern California. Additionally, it has given grants to nonprofit organizations for educational and interpretation programs that have served hundreds of thousands of children.

Ocean-Related Responsibilities

The Santa Monica Mountains Conservancy has preserved a variety of coastal properties important to the ecological health and scenic value of the coast. For example, it recently assisted in the acquisition of Tuna Canyon in 2003. The 240-acre portion of the 1,255-acre overall Tuna Canyon Park acquisition contains dense chaparral, with pockets of oak woodland, grassland, and coastal sage scrub. Tuna Canyon Park links over 18,000-acres of contiguous protected open space from Topanga State Park west to Las Flores Canyon. More than half of the property lies within Los Angeles County Significant Ecological Area Number 10. Deep canyons and ridges support a rich mosaic of coastal Southern California plant communities including sycamore riparian woodland, oak woodland, coastal sage scrub, and native grasslands. Tuna Creek, one of the most pristine aquatic habitats in the Santa Monica Mountains, courses through the eastern end of the property to the ocean.

[127] http://smmc.ca.gov/

3.3.16 State Lands Commission

The State Lands Commission[128] (SLC) was established in 1938 as an independent agency. The members of the State Lands Commission include the Lieutenant Governor, the State Controller, and the State Director of Finance. The first two are statewide elected officials while the last is a cabinet level officer appointed by the Governor. The authority of the Commission is described in Division 6 of the California Public Resources Code. The Commission is assisted by a staff of specialists in mineral resources, land management, boundary determination, petroleum engineering and the natural sciences. The staff is supervised by an Executive Officer appointed by the Commission.

Ocean Related Responsibilities

The SLC has jurisdiction over State-owned tide and submerged lands to three nautical miles offshore, and the beds of navigable rivers and lakes. These lands include about 4 million acres and are often referred to as sovereign lands. The SLC also has jurisdiction over the State's remaining school lands granted by the federal government to benefit public education. The SLC is responsible for the identification, location, and evaluation of the State's interest in these lands and their leasing and management. The location and extent of sovereign lands are generally defined by reference to the ordinary high and low water-marks of tidal and navigable waterways. Authority over these lands is exercised primarily from the State's position as landowner rather than as a regulatory agency.

The SLC has statutory authority to approve appropriate uses of State lands under its jurisdiction and may lease sovereign lands for any public trust purpose, and often must prioritize competing trust values. Public and private entities may apply to the SLC for leases or permits on State lands for many purposes including marine terminals; industrial wharves; dredging; sand mining; tanker anchorages; rights-of-way for gas pipelines, cables, and outfalls; bank protection; marinas; private recreational piers; yacht clubs, wetlands; and habitat management projects; among others. The SLC requires profile analysis as part of its permit for beach restoration projects, to ensure that public lands are not lost.

Early in its history, the California Legislature transferred certain tide and submerged lands in trust to 85 cities, counties, and harbor districts. These lands are known as "granted lands" and include about 330,000 acres. The major ports of Los Angeles, Long Beach, San Diego, San Francisco, and Oakland are all located on granted lands. Granted lands are monitored by the SLC to ensure compliance with the terms of the statutory grants and the public trust.

The SLC manages the use of energy and mineral resources on more than 160 oil, gas, geothermal and mineral leases covering more than 153,000 acres of State-owned lands. Mineral resources are developed in a way that protects public health and safety and the environment. The creation of the California Coastal Sanctuary by the California

[128] http://www.slc.ca.gov/

Legislature prevents new oil and gas development; however, the SLC monitors and verifies existing oil and gas production and royalty accounting from State leases to ensure the State is fully compensated for its resources. Using its authority over oil and gas operations, including leasing, exploration, drilling, and production, the SLC emphasizes the prevention of environmental damage and accidents from oil spills and conducts frequent inspections of equipment and facilities. Oil and gas production has contributed billions of dollars to the State and remains the single largest source of revenue from sovereign lands.

Oil Spill Prevention

Under the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990[129], the SLC exercises regulatory authority over: marine oil facilities, including inspections of terminals and associated pipelines; monitoring oil transfer operations, oil spill prevention training and certification of marine terminal personnel; and structural requirements for vapor control systems at marine terminals. Daily inspections of marine terminal operations are carried out by SLC personnel at 85 sites along the California coast and San Francisco Bay. Inspectors regularly monitor activities and enforce regulations at marine oil terminals. These inspections at fixed and mobile marine oil terminals include the observation and assessment of oil transfers to and from oil tankers and barges, with an emphasis on pollution prevention. SLC also conducts comprehensive annual inspections at each marine oil terminal, making structural and marine oil pipeline assessments, and reviewing operational procedures and training.

Ballast Water Discharge

The SLC also exercises regulatory authority over the discharge of ballast water from vessels over 300 gross register tons under California's Marine Invasive Species Act.[130] For vessels coming to California waters from outside the exclusive economic zone (EEZ), the Act requires that vessels either exchange their ballast water in mid-ocean or retain their ballast water. The purpose of managing ballast water is to protect California's existing ecosystem by minimizing the introduction of non-native marine species from foreign waters to California.

Historic Shipwrecks

Under the Shipwreck and Historic Maritime Resources Program[131], the SLC has jurisdiction over hundreds of shipwrecks scattered along California's inland waters and rugged coastline. Although wrecks often captivate the public imagination with rumors of treasure, most wrecks are far more valuable as archeological sites and as recreational diving attractions. The SLC works to protect wrecks by ensuring that any salvage

[129] Pub. Res. Code §§ 8750, *et seq*.
[130] Pub. Res. Code §§ 71200, *et seq*.
[131] Pub. Res. Code §§ 6309, 6313, and 6314.

activities meet archeological standards for recovering historical information and preserving artifacts**.**

3.3.17 California Environmental Protection Agency

Created in a 1991 reorganization of State government, the California Environmental Protection Agency[132] (CalEPA) is one of the so-called "super agencies" which unifies the State's environmental protection authority under a single cabinet-level agency. The administrative head of the CalEPA, the Secretary for Environmental Protection, provides direction and coordination of many of the State's environmental protection programs. The CalEPA coordinates the activities and policy direction for the Department of Pesticide Regulation, the Department of Toxic Substances Control, and the Office of Environmental Health Hazard Assessment, as well as for various State boards including the Air Resources Board, Integrated Waste Management Board, State Water Resources Control Board and the nine Regional Water Quality Control Boards.

3.3.18 Office of Environmental Health Hazard Assessment

The Office of Environmental Health Hazard Assessment[133] (OEHHA) evaluates the potential human health impacts of chemical contaminants in environmental media, including seafood. Data for evaluation generally are provided by other government agencies. Health evaluations usually involve a risk assessment of the carcinogenic, reproductive, or other toxic potential of a contaminant.

Ocean-Related Responsibilities

Based on the health evaluations, OEHHA issues advisories regarding consumption of contaminated sport fish, and/or makes recommendations to the Department of Fish and Game regarding restriction of commercial fishing based on potential risks to human health.[134] The office provides educational materials and publications to the public, such as sport fish catch and consumption guidance. OEHHA also works with other state agencies in evaluating contaminants in the environment that may lead to contamination of seafood. Sediments are frequently a source of toxic substances in the aquatic food web. A related activity is working with the State Water Board to establish criteria levels for selected toxins in sediments within coastal embayments and estuaries.

OEHHA's authorities to conduct the specific activities related to risk come from two general sections of the Health and Safety Code (Sections 205 and 207) and two specific sections of the Fish and Game Code. Fish and Game Code Section 217.6 states that any advisories formally issued by OEHHA shall be printed in the California Sport Fishing Regulations booklet. Section 7715 allows the Department of Fish and Game to close any

[132] http://www.calepa.ca.gov/.
[133] http://www.oehha.ca.gov/.
[134] See Health & Safety Code §§59004, *et seq.*

waters or otherwise restrict the taking under a commercial fishing license of any species of fish that OEHHA determines is likely to pose a human health risk.[135]

3.3.19 State and Regional Water Quality Control Boards

The State Water Resources Control Board[136] (State Water Board) is charged with protecting the State's water quality, balancing competing demands on water resources, and attempting to resolve decades-long water disputes. Created in 1967 the board succeeded the former Department and Director of Public Works, the Division of Water Resources of the Department of Public Works, the State Engineer, and the State Water Quality Control Board. The Water Quality Control Board had its roots in the late 1940s, when legislators created a more streamlined regulatory body to address the rising water quality problems associated with the state's explosive industrial and population growth. A water rights commission, which preceded the water rights board, was created in the early 1900s to arbitrate and resolve the state's water battles, which began during the 1849 Gold Rush.

The five-member State Water Board allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and provides policy guidance for the nine Regional Water Quality Control Boards (Regional Water Boards) located in the major watersheds of the state. The Regional Water Boards, each comprised of nine members, serve as the frontline for state and federal water pollution control efforts. Each Regional Water Board has a Basin Plan tailored to its unique watershed that provides the scientific and regulatory basis for each Regional Water Board's water protection efforts.

Ocean-Related Responsibilities

The State Water Board adopts statewide water quality control plans for ocean waters, pursuant to the Porter-Cologne Water Quality Control Act[137] and the federal Clean Water Act through the California Ocean Plan (Ocean Plan), Regional Water Quality Control Plans (Basin Plans), and the Thermal Water Quality Control Plan (Thermal Plan). Both Ocean and Basin Plans identify beneficial uses within the area being addressed and establish numerical and narrative objectives for waste discharges, as well as implementation procedures for achieving these objectives. The Ocean Plan is the State's basic water quality control plan for ocean waters. It lists "beneficial uses" of California's ocean waters which need to be protected; establishes "water quality objectives" necessary to achieve protection for those beneficial uses; and identifies areas where discharges are prohibited, and sets forth a program of implementation (including waste discharge limitations, monitoring, and enforcement) to ensure that water quality objectives are met. The State Water Board adopted the Ocean Plan in 1972, and has since periodically

[135] Section 59004 of the Health and Safety Code specifically mentions these two Department of Fish and Game Code sections as now being the responsibility of OEHHA.
[136] http://www.swrcb.ca.gov/.
[137] Water Code § 13000 *et seq.*

revised the Plan. It covers a wide variety of material that enters the ocean including plastic debris, brine from desalinization plants, metals, sediments and storm water discharges into the ocean. Of particular significance to the Ocean Protection Council are designated areas of biological significance. These areas are designated by the State Water Board as requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. Discharges within these areas are severely limited and in some cases prohibited under the Plan.[138] Regional Water Boards develop regional water quality control plans, which may also contain water quality standards applicable to ocean waters within the region. State and Regional Water Boards are responsible for regulating both point and non-point source waste discharges to state waters. In addition, the State Water Board administers loans and grants programs for water quality protection and water security. These include grant funding for construction of municipal sewage and water recycling facilities, remediation for underground storage tank releases, watershed protection projects, non-point source pollution control projects, etc.

3.3.20 California Health and Human Services Agency

The California Health and Human Services Agency[139] (CHHS) administers state and federal programs for health care, social services, public assistance and rehabilitation. Most programs administered by the Agency do not directly relate to ocean and/or coastal resource management. However, CHHSA's Department of Health Services[140] (DHS) does administer a Prevention Services Program that affects ocean related issues.

Ocean-Related Responsibilities

One of the DHS's responsibilities is to monitor and certify shellfish growing operations in marine waters.[141] To ensure the safety of the seafood product, the DHS conducts investigations of shellfish waters and watershed areas, recommends waste discharge requirements to protect shellfish waters, and places restrictions on harvesting operations. The DHS also directs a program to prevent paralytic shellfish poisoning (PSP) caused by an extremely rapid growth of certain toxins in marine water, which then accumulate in filter feeding shellfish (mussels, clams, and oysters) and cause human illness or death. The PSP prevention program includes public information, annual mussel quarantine, and a coastal shellfish monitoring program.

The DHS must also establish standards for ocean recreational waters used for sports such as swimming, wading, and surfing.[142] In addition, the DHS establishes standards for discharges into the ocean for waters used for water contact recreation and/or shellfish cultivation and harvesting. The DHS Environmental Services Division also provides a

[138] See California Ocean Plan, 200 at 19.
[139] http://www.chhs.ca.gov/.
[140] http://www.dhs.ca.gov/.
[141] Health and Safety Code §§ 28500, *et.seq*.
[142] Health and Safety Code §§ 24155-24159.

report on biotoxin activity and toxigenic phytoplankton distribution through a quarterly newsletter and by a telephone hotline.

3.3.21 University of California & California State University Systems

The University of California and California State University systems provide a wide variety of ocean related services. In addition to educational resources to train existing and future natural resource managers, the universities have several major research centers focused on ocean and coastal processes.

Ocean and Coastal Activities

University of California Natural Reserve System

University of California Natural Reserves are designated by the Regents of the University of California. Each reserve is jointly administered and supported by the Office of the President (Natural Resource System-system wide office, housed in the Division of Agriculture and Natural Resources in Oakland) and by a designated U.C. campus depending on reserve location. The reserves serve as educational and research centers for students from elementary through post-doctoral education. Several significant reserves are located along the coast and offshore.[143]

Marine Laboratories/ Marine Stations/Academic Consortia

The university systems also run several world-class marine research facilities, including Bodega Marine Laboratory, Moss Landing Marine Laboratory, Long Marine Laboratory, Scripps Institute of Oceanography, and the Telonicher Marine Laboratory.

In addition to marine labs, there are a variety of academic consortia throughout the state that cooperate and coordinate marine research. These include the California Cooperative Oceanic Fisheries Investigation (Cal COFI), the Multi-Agency Rocky Intertidal Network (MARINe) and the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO). Some of these consortia are public/private partnerships in marine research and conservation. For example, the Communication Partnership for Science and the Sea (COMPaSS) utilizes the resources of the non-profit community, academic and research institutions as well as private foundations to further its research agenda.

3.3.22 California Sea Grant

[143] These include • Año Nuevo Island Reserve; Bodega Marine Reserve ; Carpinteria Salt Marsh Reserve ; Coal Oil Point Natural Reserve; Dawson Los Monos Canyon Reserve ; Elliott Chaparral Reserve ; Emerson Oaks Reserve; Fort Ord Natural Reserve; Jenny Pygmy Forest Reserve; Kendall-Frost Mission Bay Marsh Reserve; Landels-Hill Big Creek Reserve; Kenneth S. Norris Rancho Marino Reserve; Santa Cruz Island Reserve; Scripps Coastal Reserve • Stunt Ranch Santa Monica Mountains Reserve; and Younger Lagoon.

The largest of the 30 Sea Grant programs, California Sea Grant draws on the talents of scientists and engineers at public and private universities throughout the state. It is administered by the University of California based at Scripps Institution of Oceanography and University of Southern California. California Sea Grant transfers information and technology developed in its research efforts to industry, government and the public. The marine advisors and specialists share information between the university, industry, and the public. California Sea Grant supports graduate education by funding trainees to work with marine scientists and engineers on a wide range of topics.

3.4 Inter-Agency Councils

No discussion of state agencies involved in coastal and marine resources would be complete without mention of the variety of inter-agency councils in California. The California Biodiversity Council, Invasive Species Council, the Marine Advisory Council and the Coastal Sediment Management Workgroup are some of the inter-agency task forces involved in managing these resources. These councils seek to coordinate and prioritize management of coastal and ocean resources, and provide guidance for funding efforts.

For example, the Southern California Wetlands Recovery Project seeks to accelerate the pace, extent, and effectiveness of coastal wetland restoration in Southern California through developing and implementing a regional prioritization plan for the acquisition, restoration, and enhancement of Southern California's coastal wetlands and watersheds. The organization is overseen by a governing board composed of 17 state, local and federal partner agencies as well as the chairs the Science Advisory Panel and Public Advisory Committee, who serve as ex-officio members. The Project has a five strategy plan to implement restoration projects in Southern California, integrate wetland restoration into other projects, promote education and access to wetlands within the region, advance restoration science, partner with other agencies and secure funding for restoration projects.[144]

3.5 Ports

California ports provide an important resource to the state's economy and are an important component of the state's management of its coastal resources. As local entities with quasi-municipal powers, ports have served as an important engine in coastal development throughout the history of the state. In addition, ports like the Port of Long Beach have begun to develop environmental initiatives to improve the region's environmental quality of life. Long Beach's "Green Port Policy" established five key goals: 1) protect the community and environment from the harmful effects of port operations, 2) distinguish the Port as a leader in environmental stewardship and regulatory compliance, 3) promote sustainability in terminal development and operations to meet present and future needs, 4) use the best technology to minimize environmental

[144] Fore more detail see http://www.scwrp.org/pdfs/RS-Ch5%20Implementation-Plan.pdf.

impacts, and 5) engage and educate the community about port activities.[145] Similar programs exist at the ports of Los Angeles,[146] Oakland,[147] and San Francisco.[148]

3.6 Native American Tribes and Rancherias

American Indian nations are actively involved in the management of habitat and waterborne resources on reservation lands and Rancherias through traditional cultural practices and tribal law. Beyond reservation boundaries, many tribes are involved in managing wildlife habitat through cooperative management agreements with federal and state agencies. For example, in its final rule for California and southern Oregon Coast Coho salmon, NMFS excluded the Hoopa Valley, Karuk, Round Valley, Yurok and Quartz Valley reservations, as well as a number of Rancherias for application of the rule, noting that tribal resource management plans represented an alternative to designation of critical habitat.[149] Further, the Department of Interior has, by executive order, indicated the need for cooperation between tribes and state and federal governments on implementation and enforcement of the Endangered Species Act.[150] Amendments to the Magnuson-Stevens Fisheries Act also provide for tribal representation on regional fisheries councils established under the act.[151]

3.7 Regional Fishery Management Organizations

In addition to state agencies, there are a number of Regional Fisheries Management organizations that coordinate and plan fisheries management over an entire region. Some of these organizations include: Inter-organizational Resource Information Coordinating Council, Pacific Fishery Management Council, Pacific Marine Conservation Council Pacific Salmon Commission, North Pacific Anadromous Fish Commission, and the North Pacific Fishery Management Council.

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[145] http://www.polb.com/civica/filebank/blobdload.asp?BlobID=2155.

[146] For example the Port of Los Angeles is developing a Green Terminal program that would be applied to the long-term development of Port container facilities. This program would embrace all aspects of terminal construction and operation, and include guidance on a suite of environmental measures to minimize the effects of cargo handling on air, water and land resources. http://www.portoflosangeles.org/environment_ovr.htm.

[147] The Port of Oakland has developed a sustainability guide to the Port of Oakland's operations and development programs, with the goal of making the Port a sustainable public agency and business enterprise. http://www.portofoakland.com/pdf/sustaina.pdf.

[148] The Port of San Francisco has developed an environmental award for cruise ships berthing at their facility. The award acknowledges cruise ships for reducing air and water pollution while operating in San Francisco Bay. http://www.sfport.com/site/uploadedfiles/sfport/news_and_events/Cruise%20Environmental%20Press%20Release%209-29-05.pdf.

[149] 64 Fed. Reg. 24,049, 24,058 (May 5, 1999).

[150] "*American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act*" (June 5, 1997), reproduced in Charles Wilkenson, *The Role Of Bilateralism In Fulfilling The Federal-Tribal Relationship: The Tribal Rights-Endangered Species Secretarial Order*, 72 Wash. L. Rev. 1063, 100 (1997).

[151] 16 U.S.C. § 1852(b)(5)(A).

CHAPTER 4: OCEAN USE PLANNING AND MANAGEMENT

Photo: Eileen Ecklund

4.1 Introduction

Planning for the use and management of coastal ocean resources began nationally soon after World War II, with the Truman Proclamation of 1945.[152] This executive order established a territorial sea and extended the jurisdiction of the United States to offshore waters. As a result of the First U.N. Conference on the Law of the Sea in 1958, four ocean-related treaties further refined sovereignty and international management of coastal and ocean resources. These treaties were: Convention on the Territorial Sea and Contiguous Zone; Convention on the Continental Shelf; Convention on the High Seas; and Convention on Fishing and Conservation of the Living Resources of the High Seas.[153] Also during this time, the U.S. was actively involved in treaty negotiations that led to a variety of legislation which regulated individual resources within the ocean environment.[154]

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[152] Presidential Proclamation 2667 of September 28, 1945. "Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf." 10 Fed. Reg. 12,303 (Oct. 2, 1945). See also Presidential Proclamation 2668, 10 Fed. Reg. 12,304 (Oct. 2, 1945) *"Policy of the United States with Respect to Coastal Fisheries in Certain Areas of the High Seas"*.

[153] 516 U.N.T.S. 205; 15 U.S.T. 1606; T.I.A.S. 5639; 499 U.N.T.S. 311; 15 U.S.T. 471; T.I.A.S. 5578; 10 450 U.N.T.S. 82; 13 U.S.T. 2312; T.I.A.S. 5200; 11 559 U.N.T.S. 285; 17 U.S.T. 138; T.I.A.S. 5969, respectively.

[154] *See, e.g.*, Whaling Convention Act of 1949, *codified at* 16 U.S.C**.** §§ 981 *et seq.* (implementing the International Convention for the Regulation of Whaling):. the Fishermen's Protective Act (1954), 22 U.S.C. §§ 1971 (protecting international fisheries programs); and the Tuna Conventions Act of 1950, *codified at* 16 U.S.C. §§ 951 *et seq.* (providing for international cooperation in the management of tropical tuna fisheries and implementing the Convention for Establishment of an Inter-American Tropical Tuna Commission); Fur Seal Act of 1966, *codified a*t 16 U.S.C. §§1151 *et seq.* (implementing the Interim Convention on the Conservation of North Pacific Fur Seals). See Congressional Research Service, Summaries of Major Laws Implemented by the National Marine Fisheries Service (1995)**.**

In 1969, the Stratton Commission published an influential report calling for the development of comprehensive management of coastal marine resources.[155] In the early 1970s, several major acts of Congress, such as the Magnuson-Stevens Fisheries Conservation and Management Act,[156] Marine Mammal Protection Act of 1972[157] and the Coastal Zone Management Act solidified federal management of living marine resources in the ocean. However, as discussed in the Report of the U.S. Commission on Ocean Policy, management of the various geographic boundaries in national legislation has been problematic:

> Over the past twenty years, U.S. presidents have issued a series of proclamations changing the extent and nature of U.S. authority over the oceans. The changes, creating a territorial sea to 12 miles, a contiguous zone to 24 miles, and an exclusive economic zone to 200 miles, have not been comprehensively reflected in domestic laws. Many laws also use imprecise or inconsistent terms to refer to ocean areas, such as "navigable waters," "coastal waters," "ocean waters," "territory and waters," "waters of the United States," and "waters subject to the jurisdiction of the United States." These terms can mean different things in different statutes and sometimes are not defined at all. Legal disputes have already occurred over the seaward extent of jurisdiction of the Endangered Species Act and the National Environmental Policy Act. The Clean Water Act and the Oil Pollution Act both refer to a 3-mile territorial sea. Inconsistencies and ambiguities in geographic definitions have caused problems in civil and criminal cases unrelated to natural resources, such as the regulation of offshore gambling. Congress has amended some laws regulating marine commerce to reflect the 12-mile U.S. territorial sea. However, there has been no systematic effort to review and update all ocean-related U.S. statutes and regulations.[158]

Similarly, laws governing management of living marine resources were frequently developed independently of each other and reflect differing management goals, ranging from maximum sustainable exploitation as reflected in the Magnuson-Steven Fishery Conservation Act, which regulated the take of commercial species, to maximum conservation as reflected in the Marine Mammal Protection Act, which protects marine mammals that are in danger of extinction or depletion. As has been noted by numerous authorities, living marine resources have generally been managed on a species-by-

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[155] Commission on Marine Sciences, Engineering, and Resources (Stratton Commission), *Our Nation and The Sea: A Plan for National Action* (1969).
[156] Pub.L. 94-265, Apr. 13, 1976, 90 Stat. 331, c*odified at* 16 U.S.C. § 1801, *et seq.*
[157] Pub.L. 92-522, Oct. 21, 1972, 86 Stat. 1027, *codified at* 16 U.S.C. § 1361, *et seq.*
[158] USCOP, An Ocean Blueprint for the 21st Century at 73 (2004). *See also* Robin Kundis Craig, *Taking The Long View Of Ocean Ecosystems: Historical Science, Marine Restoration, And The Oceans Act Of 2000*, 29 ECOLOGY L.Q. 649, 659-61 (discussing conflicts in geographic delimitations with the Clean Water Act).

species[159] or crisis-by-crisis basis,[160] contributing to the difficulty in developing a comprehensive system of resources. Even having laws administered by the same agency--NOAA Fisheries in the Department of Commerce, for example --has not mitigated the difficulty in harmonizing the goals of these various laws.[161]

4.2 An Outline of Ocean Management

This chapter provides an overview of the State's efforts to coordinate ocean and coastal resources study, planning and management in California. Specific management laws for ocean and coastal resources are discussed in greater detail following this chapter. As will be apparent, management of ocean and coastal resources has generally followed two tracks: s*patial management* of ocean and coast, as evidenced by the Coastal Act (Chapter 5), and various managed marine areas (Chapter 6), and *resource specific management* of ocean and coastal resources as evidence by laws related to living marine resources (Chapter 7), mineral resources (Chapter 8) and marine operations (Chapter 10).

Over the years, various measures have sought to develop comprehensive management approaches to identify, enhance, and plan for use of California's ocean and coastal resources.[162] State regulation of coastal and ocean resources has followed and frequently preceded national management of ocean resources. For example, California established one of the first long-range research data collection projects with the California Cooperative Oceanic Fisheries Investigations in 1947, after the collapse of the sardine fisheries in California.[163]. A collaboration of the California Department of Fish and Game, the NOAA Fisheries Service and the Scripps Institution of Oceanography, the Cooperative was instrumental in developing American scientific interests in ocean

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[159] *See, e.g.*, Donna R. Christie, *Living Marine Resources Management: A proposal for Integration of United State Management Regimes*, 34 Env. L. 107 (2004); Kristan M. Fletcher, *Fix it! Constructing a Recommendation to the Ocean Commission for Future Fisheries*, 8 ROGER WILLIAMS U.L. REV 93 (2002)

[160] See, e.g., PEW OCEAN'S COMMISSION, AMERICA'S LIVING OCEAN: *CHARTING A COURSE FOR SEA CHANGE* (2002) ("The principal laws to protect our coastal zones, endangered marine mammals, ocean waters, and fisheries were enacted 30 years ago, on a crisis-by-crisis, sector-by-sector basis."); Michael Blum, et al., *Practiced at the Art of Deception: the failure of the Columbia Basin Salmon Recovery Under the Endangered Species Act*, 36 ENV. L. 907 (chronicling the decline of Columbia River salmon through the Power Act and the Endangered Species Act).

[161] See USCOP, An Ocean Blueprint for the 21st Century at110 (2004), , ("Since its creation, NOAA has made significant strides in weather prediction, navigational charting, marine operations and services on the ocean and along the coast, management and protection of living marine resources, satellite operations, processing and distribution of data, and development of innovative technologies and observing systems. These successes have occurred despite significant programmatic and functional overlaps, and frequent disagreements and disconnects among the current line offices.") For a general discussion of the complexity of federal wildlife laws see MICHAEL J. BEAN, THE EVOLUTION OF NATIONAL WILDLIFE LAW (3rd ed. 1997).

[162] The following is an account of major developments in California law relating to ocean governance, initially prepared for the 1997 report *California's Ocean Resources: An Agenda for the Future* and further refined here.

[163] Harry N. Scheiber, *Success And Failure In Science-Policy Interactions: Cases From The History Of California Coastal And Ocean Studies*, 1945-1973, in IMPROVING INTERACTIONS BETWEEN COASTAL SCIENCE AND POLICY 97, 100 (NAT'L RES. COUNCIL, 1995).

science. Professor Harry Scheiber identified the lasting and international effect that this collaboration had on ocean use planning:

> [C]alCOFI set the cornerstone of what by the mid-1950s had become a coordinated pattern of interrelated and collaborative ocean research projects covering most of the fishing waters of the Northern, Eastern, and Central Pacific. These projects included the research activities conducted on fisheries oceanography by the state agencies of Oregon and Washington; the federal salmon and other programs in Alaskan waters; the U.S. tuna research project based in Hawaii (the Pacific Oceanic Fisheries Program [POFI], founded in 1948); the Inter-American Tropical Tuna Commission (established in 1949); and the international NORPAC and EPOC projects. The individual and joint scientific contributions of all these programs, in various ways, to United Nations and other international studies of the oceans, as well as to the provision of scientific data for international and national fisheries management, have been of great significance and have been given ample attention in the literature.[164]

In addition to these academic pursuits, the state government has held a series of policy-related conferences on ocean management since 1964. The "California and the World Ocean Conference" focused public attention on ocean resource management issues. The conference was instrumental in rallying support from industry, academic institutions, and science on the role of the state in ocean governance,[165] and led to the formation of the first Governor's Advisory Commission on Ocean Resources (GACOR I), to advise the Governor and Legislature on developing state approaches to managing ocean resources. As part of this effort, the University of California's Institute of Marine Resources assembled a team of experts to identify, evaluate, and make recommendations on methods to address wide-ranging technical ocean management issues. They released their report in 1965, *California and the Use of the Ocean*, which had a significant impact on the conceptualization of ocean and coastal policy nationally, presaging in some important respects the approach and some of the specific recommendations of the Stratton Commission.[166]

From 1965 through the 1970's major pieces of legislation such as the McAteer-Petris Act[167] and Proposition 20 (creating the California Coastal Zone Conservation Commission) were passed which led to the eventual adoption of the California Coastal Act, as discussed in Chapter 5. From the 1980's through the 1990's several acts sought comprehensive management of ocean resources, as discussed in sections below.[168]

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[164] *Id*. at 102-03.
[165] *Id*. at. 106.
[166] For a more detailed account of this history see James Burroughs & Brain Baird, *California's Ocean Resources Management Program*, 9 NATURAL RESOURCES AND ENVIRONMENt 44 (Spring, 1995).
[167] Gov't Code §§ 66600, *et seq*; *see also supra* note 4.
[168] PUB.RES.CODE §§ 36,000, *et seq.* (Secretary for Environmental Affairs to prepare a report on ocean management (1989); AB 205, Stats.1991, c. 1027 (Resources Agency to prepare an ocean management plan).

4.3 State Institutions and Governance

This section describes recent state efforts with regard to ocean resource planning and management. The California Ocean Resources Management Act, passed in 1990, represents the State's earliest attempt to implement a coordinated ocean resource planning and management program for the State. The California Ocean Resources Stewardship Act of 2000 aims to improve the coordination of ocean resources management science in California. The Governor's *Ocean Action Strategy*, prepared in 2004, recommends specific actions to improve the coordination and effectiveness of ocean and coastal policy and management in California. In conjunction with the *Action Strategy*, the Legislature passed the California Ocean Protection Act in 2005 that established the Ocean Protection Council. Other initiatives, *e.g.* the Marine Life Protection Act, also call for comprehensive and coordinated management of specific ocean areas; these are discussed fully in other chapters of this report, and are not presented in detail here.

4.3.1 California Ocean Resources Management Act (CORMA)

The California Ocean Resources Management Act (CORMA) declares state policy for ocean resources planning and management. [169] The State is to: 1) develop and maintain an ocean resources planning and management program to promote and ensure coordinated management of federal and state resources; 2) assert California's interests where federal ocean resource planning and management may affect the State; 3) assess the long-term values and benefits of ocean resource conservation and management; 4) encourage environmentally sound, sustainable, and economically beneficial, ocean resource development; 5) provide for efficient and coordinated resources management in state and federal waters; 6) promote ocean-related research to acquire information necessary for effective management; and 7) encourage research and development of marine technologies for protection, exploration, and utilization of ocean resources.[170] CORMA also authorizes the State to participate with Alaska, Hawaii, Oregon and Washington, in a joint liaison program with the National Oceanic and Atmospheric Association.[171]

The 1991 Amendments to CORMA transferred all non-statutory marine and coastal resources programs then administered by the Secretary for Environmental Protection to the Resources Agency. Duties and responsibilities to be transferred included, among others, all executive branch delegations regarding review and coordination of federal outer continental shelf oil and gas lease sales and development projects, policy coordination of resources and uses in the Exclusive Economic Zone, state representation on the Coastal States Organization, and other marine and coastal resource matters. The

[169] Pub. Res. Code §§ 36000, *et seq*.
[170] Pub. Res. Code § 36002.
[171] Pub. Res. Code § 36202.

Secretary for Environmental Protection retained responsibility for marine-related programs within the State Water Resources Control Board.[172]

California Ocean Resources Management Program

In accordance with the goals of the Act, CORMA established the California Ocean Resources Management Program (Ocean Program) in the Resources Agency to ensure the conservation and development of ocean resources through coordination of ocean resource planning and management.[173] The Ocean Program consists of the Ocean Resources Task Force, the California Ocean Resources Advisory Committee, and a report and plan. The Ocean Resources Task Force consists of the lead decision-makers for state agencies with responsibilities over ocean and coastal-related matters, or their designees.[174] The key role of the Task Force was to prepare and submit a report concerning ocean resources management activities and impacts, and a plan to increase coordination and consolidation of these activities.[175] The Task Force was assisted in this endeavor by a California Ocean Resources Advisory Committee (Advisory Committee),[176] appointed by the Task Force Chairperson.

The Resources Agency published its report, *California's Ocean Resources: An Agenda for the Future,* in 1997. The Ocean Agenda identified and analyzed nine ocean management issues that affect ocean resources or their management, ranging from water quality protection to vessel traffic safety.

4.3.2 California Ocean Resource Stewardship Act (CORSA)

The California Ocean Resources Stewardship Act of 2000 (CORSA) aims to improve the coordination of ocean resources management science in California.[177] The Act declares that it is state policy to: 1) ensure adequate coordination of ocean resource science among state, regional, and federal agencies and marine science institutions; 2) ensure the most efficient and effective use of state resources devoted to ocean resource management science; and 3) advance applied ocean science, graduate level education, and technology development to meet California's ocean resource management needs.[178]

CORSA directs the Secretary of the Resources Agency to report to the Legislature on the steps taken to ensure adequate coordination of ocean resource management science among state, regional, and federal agencies and marine science institutions. The purpose of this coordination is to inform marine science institutions about the information needs of agencies to enhance the usefulness of ocean science research to resource

[172] Section 12 of Stats. 1991, chapt. 1027 (A.B. 205).
[173] Pub. Res. Code § 35505(f); and § 36200.
[174] Pub. Res. Code § 36300.
[175] Pub. Res. Code § 36500; *see also* Pub. Res. Code §§ 36401-36402.
[176] Pub. Res. Code § 36302.
[177] Pub. Res. Code §§ 36970 et seq.
[178] Pub. Res. Code § 36972.

management.[179] In response to this directive, the Resources Agency published a draft *Preliminary Inventory of Ocean Resource Science Coordination Efforts in California* in December 2002. This Inventory describes major organizations and programs that assist the coordination of ocean resource management science in California and help the Resources Agency fulfill its mandate under CORSA.[180]

California Ocean Science Trust

CORSA establishes the California Ocean Science Trust (Trust) to improve the application of science to ocean resource management in California.[181] The specific purposes of the Trust are to fund directly and develop new funding sources for ocean resource science projects, and to encourage coordinated, multi-agency, and multi-institution approaches to ocean resource science. The Trust also serves to encourage new technologies that reduce the cost, increase the amount, or improve the quality of ocean resource management information, and to encourage ocean resource management graduate education programs in public and private universities and colleges. Finally, the Trust is to promote more effective coordination of California's resource science in ways useful to management agencies.[182]

The Trust consists of ten members representing a broad range of interests. The trustees include: one appointee of the Secretary for Environmental Protection; one appointee of the Director of Finance; one representative of the Resources Agency; three members nominated jointly by the President of the University of California and Chancellor of the California State University chosen for their knowledge of ocean resource science and management; two members nominated by ocean and coastal interest groups; and two representatives of the general public.[183]

4.3.3 California's Ocean Action Plan

In September 2004, the Governor released California's ocean action plan, *Protecting Our Ocean: California's Action Strategy* to guide the state's future resources protection and management efforts, and to maintain California's role as a national leader in ocean affairs.[184] The *Action Strategy* explores important actions that may be taken by state agencies, the Legislature, or by partners in public interest, industry and academia to protect and manage California's vital ocean and coastal resources, and provide for their balanced use.

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[179] Pub. Res. Code § 36980.
[180] See *Preliminary Inventory of Ocean Resource Science Coordination Efforts in California*, draft report (December 2002) at http://resources.ca.gov/ocean/CORSA/Rsch_Report_Draft.pdf.
[181] Pub. Res. Code § 36970.
[182] Pub. Res. Code § 36990.
[183] Pub. Res. Code § 36992.
[184] *Protecting Our Ocean, California's Action Strategy*, final report to Governor Arnold Schwarzenegger, prepared by the California Resources Agency and California Environmental Protection Agency (Sept. 2004).

This report recommends comprehensive and long-term actions that the state should pursue relating to: Governance Economics and Funding Research, Education, and Technology Development Ocean and Coastal Stewardship

The Governance section, among other actions, calls for signing the California Ocean Protection Act into law, and implementing the major provisions of the U.S. Ocean Commission report. The Economics and Funding section, among other actions, calls for finalization, distribution, and use of information regarding the economic benefits derived from California's ocean and coast. The Research, Education, and Technology Development section, among other actions, calls on the California Ocean Council to establish policies to coordinate the statewide collection and sharing of scientific information relating to the ocean and coasts. The Ocean and Coastal Stewardship section supports the use of ecosystem-based approaches to management at all levels of governance.

4.3.4 California Ocean Protection Act (COPA)

The California Ocean Protection Act (Ocean Protection Act) calls for the improved integration and coordination of the state's efforts to protect and conserve ocean resources.[185] The specific objectives of COPA are to: 1) provide a set of guiding principles for state agencies to follow in protecting ocean and coastal resources; 2) encourage cooperative management with federal agencies; 3) establish a cabinet level council to improve coordination and management of state ocean protection and conservation efforts; 4) more effectively use California's private and charitable resources in developing ocean protection and conservation strategies; and 5) enhance public access to the ocean and ocean resources.[186]

The Ocean Protection Act establishes the California Ocean Protection Trust Fund (Fund) in the State Treasury to finance ocean projects and activities that:

- Eliminate or reduce threats to coastal and ocean ecosystems, habitats, and species,
- Foster sustainable fisheries. Improve coastal water quality,
- Increase public access to ocean and coastal resources,
- Improve management, conservation, and protection of coastal waters and ocean ecosystems,
- Provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources,
- Acquire, install or initiate monitoring and enforcement systems.
- Purchase vessels, equipment, licenses, harvest rights, permits, and other rights and property to reduce threats to ocean ecosystems and resources.[187]

4.3.5 Ocean Protection Council

[185] Pub. Res. Code §§ 35500 et seq.
[186] Pub. Res. Code § 35515.
[187] Pub. Res. Code § 35650.

The California Ocean Protection Act establishes the Ocean Protection Council (Council).[188] The Council helps to coordinate and fund actions to protect and manage California's ocean and coastal resources, and implement the Governor's 2004 Ocean Action Strategy, described *supra*. The Council currently consists of seven members: the Secretary for Resources, the Chair of the State Lands Commission, the Secretary for Environmental Protection, two members of the public appointed by the Governor, and two *ex officio*, non-voting members chosen by the Senate and Assembly.[189] The Chair of the Council is the Secretary of the Resources Agency.[190] The Executive Officer of the State Coastal Conservancy acts as Secretary to the Council, under the direction of the Secretary of Resources.[191]

The specific tasks of the Council are to: 1) coordinate activities of state agencies that are related to the ocean and coasts, to improve the effectiveness of state efforts to protect ocean resources within fiscal limitations; 2) establish policies to coordinate the collection and sharing of scientific data related to ocean and coastal resources between agencies; 3) identify and recommend to the Legislature changes in law; and 4) identify and recommend changes in federal law and policy, and related actions to the Governor and Legislature.[192] The Council may also approve grants and expenditures to public agencies, nonprofit corporations, or private entities, from the California Ocean Protection Trust Fund or other sources for projects and activities that further the purposes of the Act.[193] The State Coastal Conservancy administers grants and expenditures authorized by the Ocean Protection Council and the Conservancy Board.[194]

In 2006, the California Ocean Protection Council drafted its *Five-year Strategic Plan*, which set out an aggressive agenda for conserving and enhancing California's coastal and ocean resources. The Plan evaluates needed actions in six areas: governance, research and monitoring, ocean water quality, physical process/habitat structure, ocean and coastal ecosystems, and education and outreach. Appendix A to the Plan provides a detailed list of potential actions to improve ocean conditions off the coast of California.

4.4 Management Coordination with Federal Agencies

California has informally established a number of regional state-federal programs and organizations to improve cooperative management of ocean resources in coastal, near shore and bay/delta environments. Four of these programs are highlighted below.

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[188] Pub. Res. Code §§ 35600-35625 et seq.
[189] Pub. Res. Code § 35600, and Pub. Res. Code § 35610.
[190] Pub. Res. Code § 35605.
[191] Pub. Res. Code § 35625.
[192] Pub. Res. Code § 35615(a)-(b).
[193] Pub. Res. Code § 35650.
[194] Pub. Res. Code § 35625(a)(1).

4.4.1 Biodiversity Council

The 1991 "Agreement on Biological Diversity" established the California Biodiversity Council (Biodiversity Council) within the Resources Agency in order to promote a coordinated regional approach to conserving biological diversity in the State.[195] The key role of the Biodiversity Council is to improve communication and cooperation between various resource management and environmental protection organizations at all levels of governance to enhance biodiversity protection. The Council consists of 40 members, including 10 regional associations of county supervisors and governments, 16 state agencies, 12 federal agencies, the University of California, and the California Association of Resource Conservation Districts, and is chaired by the Secretary for Resources.[196] The Biodiversity Council has supported the coordination of many activities affecting both inland and ocean resources, including watershed and stream restoration projects. The Biodiversity Council also serves as a forum to support the California Environmental Resources Evaluation System (CERES), which provides Internet access to ocean and coastal data and information (Cal OCEAN), which will assist in the management of California's entire ocean ecosystem.[197]

4.4.2 CALFED Bay-Delta Program[198]

Although not strictly a coastal program, per se, the California Bay-Delta Program was initiated in 1994 with the signing of a Framework Agreement by the state and federal agencies to manage water quality, habitat and agricultural interests in the Central Valley on a regional basis.[199] The more than 20 state and federal agencies that participate in this Program work cooperatively to improve the quality of the Bay-Delta ecosystem and the quantity, quality and reliability of California's water supplies. In 2000, the California Bay-Delta Authority issued a Programmatic Record of Decision that set forth a 30-year comprehensive plan to address key resource management objectives and issues. The California Bay Delta Authority Act of 2003 established in the Resources Agency California Bay Delta Authority to oversee implementation of the California Bay-Delta Program.[200] The Authority consists of representatives from six state agencies and six federal agencies, 7 members of the public, one member of the Bay-Delta Public Advisory Committee, and 4 non-voting, *ex officio* members of the Legislature.[201] Some of the

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[195] Memorandum of Understanding, California's Coordinated Regional Strategy to Conserve Biological Diversity "The Agreement on Biological Diversity," September 19, 1991, at http://ceres.ca.gov/biodiversity/mou.html.

[196] Memorandum of Understanding, California's Coordinated Regional Strategy to Conserve Biological Diversity "The Agreement on Biological Diversity," September 19, 1991, at http://ceres.ca.gov/biodiversity/mou.html.

[197] *See* CERES website at http://www.ceres.ca.gov and http://www.ceres.ca.gov/ocean.

[198] For a history of the development of CalFED see *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2005) ,34 Cal.Rptr.3d 696, 718-26 (de-published opinion),. *review granted and opinion superseded by, Laub v. Davis* (2006), 40 Cal.Rptr.3d 117.

[199] Bay-Delta Accord, December 15, 1994, at http://calwater.ca.gov/Archives/GeneralArchive/SanFranciscoBayDeltaAgreement.shtml.

[200] Pub. Res. Code §§ 79400, *et seq.*

[201] Pub. Res. Code § 79412.

program elements of the Record of Decision for CalFED's plan are currently in litigation.[202]

4.4.3 San Francisco Bay Joint Venture

The San Francisco Bay Joint Venture is one of fourteen joint ventures established under The Migratory Bird Treaty Act and funded under annual interior appropriations. The Joint Venture consists of federal and state public agencies, as well as conservation groups, development interests, and others to restore wetlands and wildlife habitat in San Francisco Bay watersheds and along the Pacific coasts of San Mateo, Marin and Sonoma counties. Federal agency membership includes the National Marine Fisheries Service, National Resource Conservation Service, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and U.S. Fish and Wildlife Service. State partners include: the State Coastal Conservancy, S.F. Bay Conservation and Development Commission, California Department of Fish & Game, Wildlife Conservation Board, and the S.F. Regional Water Quality Control Board.

The goal of the San Francisco Bay Joint Venture is to protect, restore, increase and enhance all types of wetlands, riparian habitat and associated uplands throughout the San Francisco Bay region to benefit birds, fish and other wildlife.

4.4.4 Southern California Wetlands Recovery Project

The Southern California Wetlands Recovery Project (SCWRP) is a broad-based partnership that utilizes the staffing resources of federal, state and local public agencies, non-profit corporations, scientists, and local communities to assess, acquire and restore rivers, streams, and wetlands in coastal southern California.[203] Membership includes several federal agencies: National Marine Fisheries Service, National Resource Conservation Service, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service. State partners include: the State Coastal Conservancy, California Resources Agency, California Coastal Commission, California Department of Fish & Game, California Department of Parks & Recreation, State Lands Commission, California Environmental Protection Agency, Wildlife Conservation Board, State Water Resources Control Board and several regional water quality control boards. The SCWRP's geographic scope is from Point Conception in Santa Barbara County to the international border with Mexico.

The goal of the Southern California Wetlands Recovery Project is to accelerate the pace, the extent, and the effectiveness of coastal wetland restoration through developing and implementing a regional prioritization plan for the acquisition, restoration, and enhancement of Southern California's coastal wetlands and watersheds.

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[202] *Laub v. Davis* (2006), 40 Cal.Rptr.3d 117 (granting review of lower court's remand of CalFED's Record of Decision).
[203] See Pub.Res.Code § 5811 (legislative findings lauding the success of the program).

CHAPTER 5: COASTAL ZONE MANAGEMENT

Photo: Coastwalk

5.1 Introduction

California's coast is one of the most significant natural features of the state. It stretches some 1,100 miles from Oregon to the border with Mexico, and includes approximately 287 miles of shoreline around nine offshore islands. This large coastline figures prominently in California history. Many of California's indigenous people lived and worked along the coast. Beginning in the sixteenth century, explorers and missionaries, merchant seamen and gold seekers, as well as a steady stream of immigrants from around the world, entered California from the coast.[204] Over two-thirds of the state's population live and work along its coast.[205]

As discussed in Chapter 2, California was one of the first states to develop the concept that the coastal area required special tools and attention. In 1960s and 70s, the California coast was under significant development pressure and access to coast by the public was limited.[206] In 1965, the California Legislature established the San Francisco Bay Conservation and Development Commission (BCDC) to control landfill operations in San Francisco Bay, which between 1850 and 1960 had reduced the size of the open bay by nearly one-third. The establishment of BCDC marked the first time a state agency had been established to deal exclusively with the issue of coastal management in the United States. In the 1970s, approximately 260 miles of California's coast was accessible to

[204] California Coastal Comm'n, California Coastal Guide 57 (1987).
[205] The National Ocean Economics Program, CALIFORNIA'S OCEAN ECONOMY 5 (2005).
[206] According to one observer, only "one quarter of California's coast was legally accessible to the public, and coastal land was being subjected to a tremendous amount of public and private development at the expense of long-term conservation." Todd Cardiff, *Conflict in the California Coastal Act: Sand and Seawalls*, 38 CAL. WESTERN L. REV. 255, 262 (2001), citing Stanley Scott, GOVERNING CALIFORNIA'S COAST (1975).

the public. In response to concerns expressed by community groups and discussions on the national level to enact a federal Coastal Zone Management Act (CZMA), the people passed Proposition 20, the California Coastal Zone Conservation Act of 1972, with over 55% of the vote, despite well-funded opposition. The initiative created a statewide California Coastal Zone Conservation Commission and six regional coastal conservation commissions that were charged, among other responsibilities, with preparing a plan for land use and development within the coastal zone that was to be submitted to the Legislature on or before December 1, 1975.[207] The coastal zone conservation commissions also were granted the authority to issue permits to control development within each region pending the enactment of a statewide plan.[208]

The same year Proposition 20 passed in California, Congress enacted the CZMA to foster "effective management, beneficial use, protection, and development of the coastal zone."209 In a then-innovative approach to federal-state relations, the act adopts an approach of "cooperative federalism," whereby the states assume much of the administrative and enforcement responsibilities under the act in exchange for federal incentives for participation in the program. Unlike other federal environmental statutes, the CZMA made state participation voluntary.210 Under the Act, states are responsible for developing a coastal zone management plan pursuant to the guidelines laid out in 16 U.S.C. § 1455(d)(2) and are provided various financial and other incentives for developing a state-wide program.211 Once approved, the California Coastal Commission manages the Pacific Ocean segment state's coastal zone; oversees and enforces the state coastal zone management policies in this area; and serves as liaison, in partnership with BCDC, between the state and NOAA in regards to California's participation in the program.

Since this inventory focuses on state law, we focus on the California Coastal Act, with respect to land use planning, public access, beach shoreline erosion and stabilization, and coastal conservation, along with a description of these issues as addressed by the San Francisco Bay segment of the coastal zone by the McAteer-Petris Act and Suisun Marsh Preservation Act. Finally, we will also mention other laws that are discussed in subsequent chapters such as the Porter-Cologne Clean Water Act, the California Endangered Species Act and fish and game laws.

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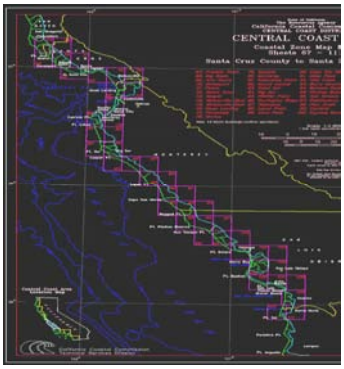
[207] Former §§ 27300-27320, enacted by Prop. 20, Nov. 7, 1972 Gen. Elec. and repealed by Stats.1974, ch. 897, § 2, p.1900, eff. Jan. 1, 1977.), cited in *Marine Forest Protection Soc. v. California Coastal Comm'n* (2005), 36 Cal.4th 1, 18, 30 Cal.Rptr.3d 30, 38.
[208] See Former §§ 27400-27403.
[209] 16 U.S.C. § 1451.
[210] See 16 U.S.C. § 1454.
[211] States that have an approved CZMP are eligible to receive grants from the Secretary of Commerce. Under 16 U.S.C. § 1455(a)(1), if a state's CZMP was approved before November 5th 1990, the Secretary of Commerce shall grant $1 for every $1 the state contributes to its plan in a fiscal year. In addition, states with an approved plan are able to ensure federal activities are consistent with state and local land use planning. 16 U.S.C. § 1456(c) (section 307(c) of the CZMA of 1972). *See generally* Todd Cardiff, *Conflict in the California Coastal Act: Sand and Seawalls*, 38 CAL. WESTERN L. REV. 255, 262 (2001) and references cited therein.

5.2 Definition of the Coastal Zone

As this chapter focuses on the coastal zone, it is essential to establish what we mean by the coastal zone. The California Coastal Act defines "coastal zone" in § 30103 as:

> [The] land and water area of the State of California from the Oregon border to the border of the Republic of Mexico, specified on the maps identified and set forth in Section 17 of that chapter of the Statutes of the 1975-76 Regular Session enacting this division, extending seaward to the state's outer limit of jurisdiction, including all offshore islands, and extending inland generally 1,000 yards from the mean high tide line of the sea. In significant coastal estuarine, habitat, and recreational areas it extends inland to the first major ridgeline paralleling the sea or five miles from the mean high tide line of the sea, whichever is less, and in developed urban areas the zone generally extends inland less than 1,000 yards.212

The legal boundaries of the Pacific Ocean segment of the coastal zone on the landward side of the coast is the line designated on maps identified in Stats.1967, Chapter 1330, § 17, which defines the coastal zone for the purposes of Public Resources Code § 30103, quoted above. These boundaries are refined by the California Coastal Commission and modified by the Legislature in § 30103.5 of the Public Resources Code.[213] In urban areas, the boundary may be only several hundred feet. In areas that are more rural, it may extend several miles inland.



On the seaward side, the boundary of the coastal zone is the seaward boundary of the state of California contained in article 12 of the California Constitution of 1849, amplified by Government Code § 170, which defines the boundary of the state of California.[214] Abbreviated, that section describes the seaward of the state as "three English nautical miles oceanward of lines drawn along the outer sides of the outermost of the islands, reefs and rocks along and adjacent to the mainland and across intervening waters; and where there are harbors….Where there are no outlying islands, reefs or rocks and no harbors or bays or inlets or estuaries, the boundary runs and has in the past run three English nautical miles oceanward of the lowest low-water mark on the shore." The exceptions to this description are islands that lie outside the three nautical mile boundary and create boundaries of their own, such as the Channel Islands.

The San Francisco Bay segment of California's coastal zone is governed by the San Francisco Bay Conservation and Development Commission (BCDC). For the Bay, the

[212] Pub. Res. Code § 30103.
[213] The inland boundaries of coastal zones in Los Angeles County and the area of San Juan Capistrano are identified in Stats.1979, chap. 1109, which made revisions to the coastal zone boundaries. Stats.1979, chap. 1128, made changes to the coastal zone in San Diego County.
[214] For a discussion of the boundaries of the coastal zone, see generally. 79 Cal.Ops.Atty.Gen. 1108 (1980)

coastal zone is defined in the McAteer-Petris Act[215] as "San Francisco Bay, being all areas that are subject to tidal action from the south end of the bay to the Golden Gate…and to the Sacramento River line…including all sloughs, and specifically, the marshlands lying between mean high tide and five feet above mean sea level; tidelands…; and submerged lands….A shoreline band consisting of all territory located between the shoreline of [the]…Bay…and a line 100 feet landward and parallel with that line….Salt ponds….Managed wetlands…. Certain waterways [tributaries to the Bay]…."[216] As provided by law, two areas within the Bay have been excluded from BCDC's jurisdiction (Greenbrae and Larkspur boardwalks). In addition, BCDC has jurisdiction over water-oriented priority land use areas that are fixed by resolution of the Commission and approved by the Legislature.[217] Further, in 1977 the Legislature passed the Suisun Marsh Preservation Act, bringing 55,000 acres of marshland, tidelands, seasonal wetlands, lowland and upland grasslands and cultivated lands, and 30,000 acres of bays and sloughs, under BCDC's coastal zone jurisdiction.[218] Boundaries of the Suisun Marsh Preservation area are depicted on a map adopted by the Legislature.[219] Detailed maps of the coastal zone and related coastal features may be found at the Coastal Conservancy's Coastal Atlas.

5.3 Lead State Entities

The Coastal Commission and San Francisco Bay Conservation and Development Commission have as their primary missions to plan for and regulate land and water uses in the coastal zone consistent with the policies of the Coastal Act and McAteer-Petris Act.

The Commission jurisdiction in the coastal zone is broad, applies to private and public entities, and covers virtually all manner of development activities, including any division of land, a change in the intensity of use of state waters and of public access to them. Chapter 3 of the Coastal Act spells out the coastal resources planning and management policies of the Pacific Ocean segment of the coastal zone. Local governments are responsible for adopting local coastal plans for review and approval by the Coastal Commission. A local government located within the Coastal Commission's coastal zone must prepare a local coastal program for the portion of the coastal zone that is within its jurisdiction,[220] which is presented to the Commission for certification.[221] After acceptance, amendments also require consultation with the Coastal Commission. Special provisions apply to plans for port areas, submerged tidelands and areas managed by other state agencies.[222]

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[215] Gov. Code §§ 66600, *et seq*.
[216] Gov. Code § 66610.
[217] Gov. Code § 66611.
[218] Pub. Res. Code §§ 29000, *et seq*.
[219] A copy of the legislatively approved map depicting boundaries of the Suisun Marsh can be viewed at http://www.bcdc.ca.gov.
[220] Pub. Res. Code § 30500(a).
[221] Pub. Res. Code § 30512(a).
[222] See Pub. Res. Code § 30710, *et seq.* (regarding adoption for port master plans).

The McAteer-Petris Act and *San Francisco Bay Plan*, along with the Suisun Marsh Preservation Act and *Suisun Marsh Protection Plan*, provide for planning, management and regulatory control over the San Francisco Bay segment of the coastal zone, which is managed by the BCDC. Local governments within the bay area and the management area of the Suisun Marsh must prepare a local protection plan to guide local regulatory decisions; these decisions may be appealed to BCDC. In all other areas of the Bay, BCDC is the permitting authority for activity within the coastal zone. Local governments may, in concert with BCDC, adopt Special Area Plans that are tailored to the needs of the local area.

5.4 Other State Entities

Various other state agencies have statutory responsibilities over land use planning in the coastal zone. Port districts, for example are discussed further in Chapter 10, *infra*. The Department of Boating and Waterways is the state agency principally responsible for evaluating the economic feasibility of any boating facility to be developed within the coastal zone and may comment on permits involving boating facilities and mooring.[223] The Department of Boating and Waterways is also responsible for assessing beach erosion and restoration.[224]

The State Lands Commission retains ownership and control over state-owned tideland and its leasing authority.[225] Similarly, the Department of Conservation retains regulatory authority to establish controls on offshore oil and gas leasing facilities to specific statutory requirements or authorization.[226] Further, a variety of state agencies must be consulted before permitting the disposal of hazardous substances in the sea.[227]

In addition, various geographical coastal regions of the state are singled out for special planning initiatives. For example, Monterey Bay Sanctuary creates a regulatory overlay on local land use planning activities within the sanctuary area.[228] California EPA is charged with developing the Morro Bay Management Plan.[229] The plan is to include provisions for the protection and enhancement of every aspect of the health of the bay, including research needs and future revisions to the plan.[230] In a similar vein, the Santa Monica Bay Restoration Commission is responsible for a variety of actions to improve the Santa Monica Bay watershed area.[231]

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223 Pub. Res. Code § 30419. The state may regulate these areas, such as anchorage and mooring so long as they are not in conflict with Congress' retention of a navigational servitude. *Barber v. State of Hawai'i*, 42 F.3d 1185 (9th Cir. 1994).
224 Harbors & Nav. Code. §§ 65, et. seq.
225 Pub. Res. Code § 30416(b) & (c).
226 *Id*. § 30418.
227 *Id*. § 30420.
228 See 15 C.F.R. 922-132.
229 *Id.* § 28007.
230 *Id.* § 28005.
231 *Id*. § 30988.

5.5 California Coastal Act of 1976[232]

The California Coastal Act of 1976 was originally adopted by initiative; the Coastal Zone Conservation Act, popularly known as Proposition 20, passed by the voters in November 1972.[233] The initiative essentially created a coastal zone management regime before federal adoption of the Coastal Zone Management Act of the same year.[234] The 1972 initiative created a statewide California Coastal Zone Conservation Commission and six regional coastal conservation commissions that were charged with, among other responsibilities, the duty of preparing a plan for land use and development within the coastal zone that was to be submitted to the Legislature on or before December 1, 1975.[235] The coastal zone conservation commissions were also granted the authority to issue permits to control development within each region pending the enactment of a statewide plan.[236] The commissions created by the 1972 initiative proposed a coastal zone conservation plan to the Legislature in December 1975.

The following year the Legislature enacted the California Coastal Act of 1976 ("Coastal Act"), a comprehensive statutory scheme aimed at protecting the coastal zone.[237] The Coastal Act charged the newly created Coastal Commission with the primary responsibility for implementing the Coastal Act.[238] The coastal policies include the protection and expansion of public access to the shoreline; the creation of recreational opportunities; the protection, enhancement and restoration of environmentally sensitive areas, including inter-tidal and nears shore bays, waters and estuaries; the protection of private, coastal agricultural lands, commercial fisheries and archeological resources; the establishment of urban and rural boundaries to prevent urban sprawl and leapfrog development; the development of industrial ports, power plants and other water-dependent industrial uses; and the protection against loss of life and property from coastal hazards.[239]

The Coastal Act requires each local government lying at least partially within the coastal zone, or the Commission on behalf of a local government, to prepare a local coastal program for that portion of the coastal zone within its jurisdiction, and specifies requirements related to local coastal programs. The Coastal Commission determines the adequacy of local coastal programs and has authority to issue coastal development

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[232] Pub Res. Code §§ 30000 *et seq.*
[233] *Marine Forests Society v. California Coastal Comm'n*. (2005) 36 Cal.4th 1, 30 Cal.Rptr.3d 30.
[234] Pub. Law No. 94-370, 1976 S 586. In its essential elements, this product of the direct ballot in California would be a model for the provisions of the national Coastal Zone Act adopted by Congress three years later. Harry N. Scheiber, *California, Laboratory of Legal Innovation*, ABA JOURNAL, (Winter 2001).
[235] Former Pub. Res. Code §§ 27300-27320, *enacted by* Prop. 20, Nov. 7, 1972, Gen. Elec. and repealed by Stats. 1974, ch. 897, § 2, p. 1900 (eff. Jan. 1, 1977).
[236] As established by the 1972 initiative measure, the statewide commission was composed of 12 members and the regional commissions were composed of a combination of local elected officials and public representatives. Like the public representatives of the statewide commission, the public representatives of the regional commissions also were appointed equally by the Governor, the Senate Rules Committee, and the Speaker of the Assembly.
[237] Pub. Res. Code §§ 30000-30900.
[238] Pub. Res. Code § 30331.
[239] Pub. Res. Code. Div. 20, Ch. 3.

permits for proposed development that will modify coastal land or water use where the local entity has not obtained an approved plan,[240] or where federal actions are reasonably likely to affect coastal resources, as discussed below.

Each local government in the coastal zone may regulate activities within its jurisdiction subject to a local coastal plan prepared either by the local government or by the Coastal Commission in accordance with the Act.[241] Once the Commission certifies that a local coastal plan conforms to the Coastal Act, the local government is delegated the authority to issue coastal development permits for most development within its jurisdiction.[242] Regional coastal programs also exist for the San Francisco and Suisun Marsh, under the authority of the S.F. Bay Conservation Development Commission, and Humboldt Bay.

5.5.1 Coastal Development Policies

The Coastal Commission has developed general policies that guide the development of all local coastal programs. The policies include the following:

Preservation of public access and views, restrictions on development.[243] This policy requires that each plan seek to maintain and enhance public access to the coast. It requires that scenic and visual qualities of coastal areas are considered and protected. It requires new residential, commercial, or industrial development to be located contiguous with or in close proximity to existing developed areas able to accommodate it or where it will not have significant adverse effects on coastal resources.

Recreational Opportunities. Plans should support public recreational activities in the coastal and oceanfront areas. Oceanfront land suitable for recreation is to be protected for recreational use and development. Ocean front land that is suitable for coastal dependent aquaculture is to be protected for that use.

Marine Environment.[244] Marine resources are to be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. It limits the ability to dike fill, or dredge open coastal waters, wetlands, estuaries, and lakes (where consistent with other laws) except for port, energy, and coastal-dependent industrial facilities,

[240] A number of local governments still do not have local coastal plans. For example, portions of Los Angeles County and portions of the City of Los Angeles do not have an approved LCP. The same is true for some cities along Monterey Bay. In 2000, the Legislative adopted AB 988 which enacted Pub. Res. Code § 30166.5. Section 30166.5 directs the Commission to prepare and adopt an LCP for the city of Malibu. Section 30166.5 further provides that once the Commission approves the LCP, it will be deemed certified and Malibu must assume permitting responsibility. *See City of Malibu v. California Coastal Comm'n* (2004) 121 Cal.App.4th 989.
[241] Pub. Res. Code § 30500.
[242] Pub. Res. Code § 30519.
[243] Pub. Res. Code §§ 30250-30252.
[244] Pub. Res. Code §§30230-30236.

including commercial fishing facilities. These policies protect facilities serving the commercial fishing and recreational boating industries.

Land Resources.[245] These policies generally seek to protect environmentally sensitive habitat areas against any significant disruption of habitat values, and only uses dependent on those resources are to be allowed within those areas. Agriculture and timber production in coastal areas are to be protected as well.

Development.[246] These policies seek to prevent inappropriate coastal development and encourage the siting of adequate and appropriate facilities. Rules for developments within the coastal planning areas must minimize risks to life and property, assure stability and structural integrity of the landform, be consistent with air quality requirements, minimize energy consumption and, where appropriate, protect special communities.

Several sections of the Coastal Act call for heightened protections of each "environmentally sensitive area of the coast."[247] These are areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature and which could be easily disturbed or degraded by human activities and development. Similarly, section 30116 establishes "sensitive coastal resource areas" which are those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity, including the following: (a) special marine and land habitat areas, wetlands, lagoons, and estuaries, (b) areas possessing significant recreational value, (c) highly scenic areas, and others within sensitive coastal resource areas.

Section 30200 (a) of the Coastal Act directs all public agencies carrying out or supporting activities outside the coastal zone that could have an impact on coastal zone resources to consider the potential impacts of such activities on coastal zone resources. However, recent case law has limited the Coastal Commission's consideration of developments outside the zone that may affect resources within the zone.[248] Regional coastal programs also exist for the San Francisco Bay Area, under the McAteer-Petris Act, Humboldt Bay and Suisun Marsh. The programs have their own unique policies and program requirements.

5.5.2 The Federal Consistency Requirement

Pursuant to the CZMA, federal agency activities that have reasonably foreseeable effects on land use, water use, or natural resources in the coastal zone must be consistent, to the maximum extent practicable, with the enforceable policies of a state's approved Coastal

[245] Pub. Res. Code §§30240-30244.
[246] Pub. Res. Code §§30250-30255.
[247] Pub. Res. Code § 30107.5.
[248] *Sierra Club v. California Coastal Commission* (2005), 35 Cal.4th 839, 28 Cal.Rptr.3d 316 (Commission lacks authority, under Coastal Act, to deny permit request based on impacts inside coastal zone of proposed housing development outside coastal zone).

Management Policy (CMP).[249] In addition, federally-permitted federally-funded activities, including oil- and gas-related activities, that have reasonably foreseeable effects on land use, water use, or natural resources must be fully consistent with the state Coastal Management Plan.[250]

Scope and Application

The federal consistency provision of the federal Coastal Zone Management Act is considered a cornerstone in the Act's attempt at cooperative federalism and serves as a significant incentive for State participation. The provision provides a limited waiver of federal supremacy and authority to allow coastal states to influence federal activities in the coastal zone and federal waters. Federal agency activities that have coastal effects must be consistent to the maximum extent practicable with the federally approved enforceable policies of California's Coastal Act and McAteer-Petris Act. In addition, non-federal applicants for federal authorizations and funding must be fully consistent with the enforceable policies' plans. In 2000, NOAA published revised regulations concerning federal consistency under the Act to comply with Congressional changes to the Act "to leave no doubt that all federal agency activities meeting the 'effects' standard are subject to the CZMA consistency requirement; that there are no exceptions or exclusions from the requirement as a matter of law."[251]

Coastal Effects: At the heart of federal consistency is the "effects test." The new effects language was added to replace previous language that referred to activities "directly affecting the coastal zone."[252] The term "affecting" is to be construed broadly, including direct effects which are caused by the activity and occur at the same time and place, and indirect effects which may be caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Federal actions: There are four basic types of federal actions: Federal agency activities, federal license or permit activities, outer continental shelf (OCS) plans, and federal financial assistance to state and local governments.

Enforceable policies: An enforceable policy is a state policy that is legally binding under state law (*e.g.*, through constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions), and by which a state exerts control over private and public coastal uses and resources, and which are incorporated in the state's federally approved CMP.[253]

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[249] 16 U.S.C. §1456(c)(1) & (2).
[250] 16 U.S.C. §§ 1456(c)(3) & 1456(d).
[251] Pub. L. No. 101-508 (1990), H.R. Conf. Rep. No. 964, 101st Cong., 2d Sess., 970, 971.
[252] This language was drafted in response to *Secretary of the Interior v. California*, 464 U.S. 312 (1984), and further to: "eliminate categorical exemptions" from consistency, and instead to establish a uniform threshold standard requiring federal agencies to make a case-by-case factual determination of reasonably foreseeable effects on the coastal zone. H.R. Rept. No 964, 101st Cong. 2nd Sess. at 970-71; 136 Cong. Rec. H 8076 (Sep. 26, 1990).
[253] 16 U.S.C. § 1453(6a).

While the procedure for compliance with the consistency provisions varies somewhat, in general, the applicant undertaking the federally authorized activity must submit a Consistency Certification to the approving Federal agency and Coastal Commission. In addition to the Certification, the applicant must provide the Commission with the necessary data and information required by NOAA's regulations[254] to allow the State to assess the project's effects. This information will usually be contained in the application to the federal agency, but may include other information required by the Commission. Changes in 2006 to the federal regulations now restrict the State's ability to review modification to projects previously reviewed.[255]

5.5.3 Interstate Consistency Issues

Special rules apply to consistency determinations that require more than one state to make a determination. The CZMA allows the Commission to review federal actions and may preclude federal action because of a State objection, even if the objecting State is not the state in which the activity will occur, where there are specific regulations in place.[256]

5.6 Public Access to Beaches and the Coast

Public access to the coast is of paramount importance to the State as reflected in the State Constitution, state common law and statutory law. The California Constitution, Article X, § 4 provides:

> No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water; and the Legislature shall enact such laws as will give the most liberal construction to this provision, so that access to the navigable waters of this State shall be always attainable for the people thereof.

This section and the common law doctrine of the public trust, which the provision largely embodies, have been the subjects of a long line of California cases.[257] For a general discussion of the public trust doctrine, see Chapter 2, above.

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[254] 15 C.F.R. § 930.58.

[255] See 15 C.F.R. 930.51(e) (2006), available in redline version at http://www.coastal.ca.gov/fedcd/fedcndx.html. The new regulations now require the federal agency to give "considerable weight" to the state's opinion.

[256] 15 C.F.R. § 930.58(a)(2). See also List of Federal Licenses and Permits Subject to Federal Consistency Requirements at http://www.coastal.ca.gov/fedcd/listlic.pdf.

[257] See, e.g., *Weber v. Board of Harbor Com'rs*, 85 U.S. 57, 21 L.Ed. 798, 18 Wall. 57; *State v. Superior Court of Lake County* (1981) 172 Cal.Rptr. 696, 29 Cal.3d 210, 625 P.2d 239, *cert denied*, 454 U.S. 865; *City of Berkeley v. Superior Court* (1980) 26 Cal.3d 515 *Personal Watercraft Coalition v. Board of Supervisors* (2002) 122 Cal.Rptr.2d 425, 100 Cal.App.4th 129.

5.6.1 State Policy

As discussed previously, the Coastal Act supports broad access to public coastal areas and waterways. Section §30210 of the Public Resources Code suggests that in carrying out the constitutional requirement of access to navigable waters of the state, maximum access and recreational opportunities are to be provided for all the people consistent with public safety requirements and the need to protect public rights, rights of private property owners, and natural resources areas from overuse. Preserving public access to the shore is carried out through a number of policies in the Act.

One objective of the Coastal Act is to preserve existing public rights of access to the shoreline carried out through a number of mechanisms:

New Developments
Public Resources Code §§30211, restricts development so as not to interfere with the public's right of access to the sea where access is acquired through use or legislative authorization. Access from the nearest public roadway to the shoreline and along the coast must be provided in new development projects, except as specified. Public Resources Code §30252 specifies how new developments should maintain and enhance public access to the coast.

Infrastructure to support public access
Public Resources Code §30604(c) requires that every coastal development permit issued for any development between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone must include a specified finding that the development is in conformity with the public access and public recreation policies of the Coastal Act.

Visual Access
Public Resources Code §30251 requires that the scenic and visual qualities of coastal areas be considered and protected as a resource of public importance. Permitted development is to be sited and designed to protect views to and along the ocean and scenic coastal areas, minimize the alteration of natural land forms, be visually compatible with the character of surrounding areas, and, where feasible, restore and enhance visual quality in visually degraded areas.

Public Access
Public Resources Code §30530 establishes the Commission's public access program to maximize public access to and along the coast. The program also ensures the coordination of federal, state, and local agencies responsible for acquisition, development, and maintenance of public coastal accessways.

5.6.2 The McAteer-Petris Act and Suisun Marsh Preservation Act

The San Francisco Bay Conservation and Development Commission (BCDC) administers the federal Coastal Zone Management Act within the San Francisco Bay

segment of the California coastal zone to ensure that federal projects (or federally authorized or funded activities) are consistent with state law and policies that are embodied in BCDC's federally approved management plan for the Bay.

The San Francisco Bay segment of the California coastal zone includes the Bay, certain tributaries to the Bay, the shoreline band, salt ponds and managed wetlands, and priority use areas provided for by the McAteer-Petris Act; and the primary and secondary management areas of the Suisun Marsh. See descriptions of the BCDC's coastal zone program under 3.3.14 San Francisco Bay Conservation and Development Commission of this Overview.

Apart from the Coastal Act, the Government Code § 66478.11 requires that no local agency issue development permits when property fronts on coastline or shoreline unless reasonable public access has been provided as specified. Efforts by the Coastal Commission to enforce development restrictions are of course bounded by constitutional limitations on the regulatory taking of property.[258]

The BCDC manages its public access program within the San Francisco Bay segment of the California Coastal zone. The program is founded on provisions of law, guidelines developed by staff, and coordination with other agencies around the Bay. The McAteer-Petris Act provides that a permit for a project along the Bay shoreline may be denied if the project "fails to provide maximum feasible public access, consistent with the project, to the Bay and its shoreline." In evaluating public access, BCDC is also charged with determining whether access is compatible with wildlife protection when development is proposed in areas of sensitive habitats.[259]

In carrying out this statutory requirement, the Commission has established an advisory Design Review Board, consisting of expert architectural, engineering, and design professionals to review projects for the quality and quantity of public access. In addition to advising BCDC on this topic, the Design Review Board offers valuable advice to applicants for project design resulting in the best possible public access and configuration of the shoreline project.

In 2005, with a grant from NOAA's Coastal Impact Assistance Program, BCDC staff has developed *Shoreline Spaces – Public Access Design Guidelines for the San Francisco Bay*; and *Shoreline Signs – Public Access Signage Guidelines*. These documents assist applicants and public agencies in designing excellent access to the Bay's shoreline, and provide a foundation for project review by BCDC's Design Review Board.

To help configure public access, the BCDC staff coordinates with The San Francisco Bay Trail Project, carried out by the Association of Bay Area Governments to create a

[258] Most notably, the U.S. Supreme Court in *Nollan v. California Coastal Commission*, 483 U.S. 825, 827 (1987) limited the Commission's ability to impose access requirements by requiring that the Commission find an essential nexus between public burden created by development and the public access requirement imposed by the government to permit the construction or else the requirement amounts to a taking.
[259] Gov't Code § 66632.4.

planned recreational corridor that, when complete, will encircle the San Francisco Bay Area with a continuous 400-mile network of bicycling and hiking trails. Public access required by BCDC on individual properties on the shoreline can provide critical links in, or to, the Bay Trail.

5.7 Beach Erosion, Replenishment, and Shoreline Stabilization

5.7.1 Introduction

Beach and shore erosion are the subject of a variety of laws and require the coordinated efforts of several state agencies. Key laws include the California Coastal Act and the California Public Beach Restoration Act (PBRA)[260] which establishes the California Public Beach Restoration Program, and charges the Department of Boating and Waterways (DBW) with taking specified actions to restore, enhance, and maintain public beaches and coastal areas. As required by the Restoration Act, DBW and the Coastal Conservancy published a report in 2002, which recommended a series of actions be taken to stabilize and replenish California's beaches.[261] Other reports are currently in process, including a master plan for sediment management within California.[262]

Several state agencies have regulatory control over the management of coastal and marine sediment. The Coastal Commission exercises authority over coastal-dependent uses, structures, or public beaches in danger of erosion or in need of sand supply.[263]

On the coast, the State Lands Commission regulates the deposit, removal, or extraction of material from specified state waters, the construction or alteration of structures on or near tide or submerged lands and salvage operations. The State Lands Commission also establishes the ordinary high-water mark and the ordinary low water mark of specified waters.[264]

The Department of State Parks and Recreation (DPR) is also involved in the prevention of erosion and control of marine sediments through the construction of beach erosion control works that affect recreational beaches, recreational areas and reserves under its ownership and control. The DPR is the single largest coastal landholder and manager (approximately 25% of the coast) in California. With over 35 million annual visitors to its coastal properties, DPR is a significant stakeholder in coastal resource management and coastal erosion policy implementation.

5.7.2 Regional Efforts within California

[260] Harbors & Nav. Code §§ 69.5, *et seq.*
[261] A copy of the report and the recommendations can be found at http://dbw.ca.gov/PDF/BeachReport/FUll.pdf.
[262] see
[263] Pub. Res. Code § 30235.
[264] Pub. Res. Code §§ 6301, *et seq*

The California Sediment Management Work Group (CSMW) is composed of federal and state agencies whose combined purpose is to develop regional approaches to protecting California's coastal beaches and watersheds through federal, state and local cooperative efforts.[265] A participatory agency involved in the work group is the Department of Boating and Waterways which is charged with reporting on problems of beach erosion and means for beach stabilization.[266]

The CSMW is modeled after several regional organizations developed to address coastal erosion: the Beach Erosion Authority for Clean Oceans and Nourishment, in Santa Barbara and Ventura counties (BEACON), the Orange County Coastal Coalition, and the San Diego Association of Governments' Shoreline Preservation Committee (SANDAG). These organizations provide a forum for a variety of stakeholders, including government agencies, not-for-profit organizations, and interested members of the public, to discuss issues associated with coastal erosion and beach loss. They also serve as project planning and management entities for regional projects, such as the SANDAG Regional Beach Nourishment Project and the BEACON Opportunistic Nourishment Program, and have assisted CSMW by administering contracts related to the Sediment Master Plan.

The San Francisco Bay Conservation and Development Commission in conjunction with other federal and state authorities regulates the placement of fill, extraction of materials, or other changes in the land or structure within 100 feet of the shoreline of San Francisco Bay and selected water features of the bay area.[267]

5.7.3 Relevant Provisions of Federal law

Rivers and Harbor Act of 1899

The River and Harbor Act (RHA) provides federal funding for the construction, repair, and preservation of certain public works in coastal areas, rivers and harbors. Section 10 prohibits placing obstructions to navigation outside established federal lines and excavating from or depositing material in such waters, unless a permit for the works has been authorized by the U.S. Army Corps of Engineers (USACE). Many projects affecting beach nourishment or the removal or installation coastal barriers are regulated under Section 10 of RHA.[268] The Corps performs most of its navigation maintenance responsibilities with the funds appropriated by Congress for that purpose, and tends to regard additional environmental components of the dredging process as external to the navigation project itself.[269]

Clean Water Act

[265] See http://dbw.ca.gov/csmw/csmw.htm.
[266] Harbors & Nav. Code §§ 65 *et seq.*
[267] For a detailed identification of the jurisdiction of BCDC, see Gov't Code § 66610.
[268] 33 U.S.C. §§ 401 *et seq*.
[269] USEPA, Dredged Material Management and State Coastal Management Programs: Lessons from a Workshop in New Orleans, Louisiana in January 1999.

CWA Section 404 regulates the discharge of dredged or fill material into waters of the U.S. for beneficial use as fill material, for example port landfill and beach fill. This section also allows the discharge of dredged material into waters of the U.S. for disposal purposes if the material meets certain requirements and the material is placed at an ocean dredged material disposal site approved by the EPA. The CWA Section 404 Permit Program is administered by the USACE.[270]

CWA Section 401 allows States to review approve, condition, or deny all federal permits or licenses that might result in a discharge to State waters including section 404 permits and Rivers and Harbors Act Section 9 and 10 permits.[271] The state typically bases its decisions to deny, certify, or condition permits or licenses by ensuring the activity will comply with State water quality standards. In addition, the state may look at whether the activity will violate effluent limitations, new source performance standards, toxic pollutants, and other water resource requirements. See also *infra* **8.5.2 Governing Law**

5.7.4 Relevant Provisions of State Law

The California Coastal Act has several provisions that relate to managing hard and soft ocean structures. The Coastal Act requires that revetments, breakwaters, seawalls, and other projects that alter natural shoreline processes must serve coastal dependent uses or protect existing structures or public beaches in danger from erosion.[272] Since 1999, the Coastal Commission has required the payment of a fee as a special condition to obtain a permit for shoreline armoring. The fee is deposited in a Beach Sand Mitigation Fund to be used to pay for the placement of sand on a beach within the same littoral cell in which the shoreline-armoring project was permitted.[273]

The Beach Restoration Act[274] as mentioned in section 5.7.1 provides specific authorization for the Department of Boating and Waterways to develop programs to control beach erosion and enhance state beaches for tourism and other purposes. Harbors and Navigation Code § 65 also authorized DBW to facilitate state participation in federal beach and shoreline restoration projects as needed.[275] This section of the Code authorizes various types of beach enhancement projects to be carried out in conjunction with the federal government. Similarly, Public Resources Code §560 authorizes the State Park and Recreation Commission to participate or contract with the United States Corps of Engineers, the County of San Luis Obispo, or the City of Pismo Beach, in repairing

[270] 33 U.S.C. § 1344.
[271] See 33 U.S.C. § 1341(a) & (d).
[272] Pub. Res. Code § 30235. Section 30233(d) allows for the placement of material removed from erosion control and flood control facilities at appropriate points on the shoreline where feasible mitigation measures have been provided to minimize adverse environmental effects.
[273] The Coastal Commission initiated the in-lieu fee mitigation program in response to two coastal development permit applications in San Diego County. The payment of the fee was required as a condition of approval of the coastal development permits for the shoreline protective devices in accordance with Section 30235 of the Coastal Act.
[274] Harbors and Nav. Code § 69.5.
[275]

and improving the concrete seawall at Pismo State Beach. All beach restoration projects on state parks property require DPR's review and approval of the project.[276]

On a local level, Public Resources Code § 5157.5 provides generalized authority for county boards of supervisors to construct within the incorporated area, as well as the unincorporated area, county projects for the prevention of beach erosion or for the restoration of eroded beaches.

5.8 Coastal Conservation

5.8.1 Introduction

Coastal conservation involves the efforts of a huge variety of federal, state, local and non-profit entities working in the state to conserve these lands. Chapter 2 identified the major entities within the state and federal government working to preserve coastal areas for public access and natural resource preservation and enhancement. The State Coastal Conservancy works in conjunction with a variety of other state agencies including State Wildlife Conservation Board, the San Diego River Conservancy, the San Gabriel & Lower Los Angeles Rivers & Mountains Conservancy, the San Joaquin River Conservancy, and the Santa Monica Mountains Conservancy to purchase and protect sensitive coastal areas. In addition to these state agencies, literally hundreds of resource conservation districts and other local governmental entities are engaged in the coastal conservation effort.[277] See Section 6.2 for a discussion of national coastal conservation efforts.

5.8.2 State Law

California Coastal Act of 1976 mandates that the Commission protects and enhances the resources of the coastal zone. The Coastal Act prohibits siting developments in wetlands in the Coastal Zone except for certain specified uses including port facilities, coastal dependent industrial facilities, and restoration projects.[278] Additionally, before issuing a permit for development in a wetland, the Coastal Commission must find that there is not a feasible, less environmentally damaging alternative, that feasible mitigation measures have been provided that minimize adverse environmental effects, and that the functional capacity of the wetland is maintained or enhanced.[279]

A variety of types of mitigation are allowed, including mitigation banks, as described in the Commission's Wetland Guidance.[280] For mitigation to be accepted there must be maintenance and monitoring program. Also, prior to the commencement of the

[276] Harbors & Nav. Code § 65.4.
[277] For a list of resource conservation districts, see the California Association of Resource Conservation Districts' website at http://www.coastal.ca.gov/publiced/directory/resdirectory/name.html,
[278] Pub. Res. Code § 30233(a)(1) to (8).
[279] Pub. Res. Code § 30233(a) and (c). *See* Pub. Res. Code § 30607.1.
[280] See California Coastal Commission, *Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone*, at 390-36, available at http://www.coastal.ca.gov/wetrev/wettitle.html.

development project, the restoration site must be purchased and dedicated to a public agency or otherwise permanently designated as open space. Further, the site must generally be located in the same general region and the values must generally be to the same types and variety of plant and animal species that use the proposed development site.

The Conservancy Act, Public Resources Code, Division 21 establishes and provides for the State Coastal Conservancy. The Coastal Conservancy's initial function as part of the Coastal Act is to serve as a repository for lands whose reservation is required to meet the policies of the Coastal Act, a certified local coastal plan or program, or the San Francisco Bay Plan as implemented by the San Francisco Bay Conservation and Development Commission.[281] The Conservancy also has the authority to award grants to state agencies, local public agencies, and nonprofit organizations for the enhancement of coastal and ocean resources;[282] to award grants to state agencies for the acquisition of less than fee title in land or water areas containing sensitive resource values;[283] and to seek repayments of funds granted under the coastal conservancy law.[284] The State Coastal Conservancy may undertake coastal watershed and coastal and marine habitat water quality protection and restoration projects, or award grants for those projects, to improve and protect coastal and marine water quality and habitats.[285] The Conservancy has additional authority under Division 26.5 of the Public Resources Code (the Ocean Protection Act) to carry out projects on behalf of the Ocean Protection Council.[286]

With respect to coastal streams, the Fish and Game Code regulates construction projects which may "divert, obstruct or change the natural flow or bed, channel or bank of any river, stream or lake designated by the [Department of Fish and Game]."[287] Regulations promulgated by the Department of Fish and Game make clear that *all* rivers, streams, lakes and stream beds which may have "intermittent flows of water" are covered by the statutes.[288] Private parties must obtain a streambed alteration permit from the Department of Fish and Game prior to taking any action covered under the statutes. Failure to obtain a required permit is a criminal offense. Coastal conservation occurs on a regional basis as well. For example, the Suisun Marsh Protection Act directed the San Francisco Bay Conservation and Development Commission and the Department of Fish and Game to prepare a *Suisun Marsh Protection Plan* which resulted in refinements to the overall purposes of the act "to preserve the integrity and assure continued wildlife use" of the Suisun Marsh.[289]

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[281] Pub. Res. Code § 31104.The conservancy is the designated agency in the state for planning and coordinating federal surplus land sales in the coastal zone. *Id*. § 31105.
[282] Pub. Res. Code, §§ 31116, 31251.
[283] Pub. Res. Code, § 31115.
[284] *Id*. § 31118.
[285] *Id*. § 31220.
[286] Pub. Res. Code § 31220(a)(10).
[287] Fish & Game Code §§ 1601 & 1603.
[288] 14 Cal. Code Regs. § 720.
[289] Pub. Res. Code §§ 29000 *et seq*.

The California Urban Waterfront Area Restoration Financing Authority Act[290] establishes in state government the California Urban Waterfront Restoration Financing Authority, with specified duties and authority with respect to financing specified projects for urban waterfront restoration activities, including those activities in the coastal zone. The Act imposes additional requirements with respect to those projects authorized.

Finally, all state agencies are under a duty pursuant to the California Environmental Quality Act (CEQA)[291] to analyze and where feasible avoid or mitigate development impacts on coastal and wetland areas. Unlike the National Environmental Policy Act, CEQA imposes an obligation to implement mitigation measures or project alternatives to avoid or mitigate significant adverse environmental effects, if these measures or alternatives are feasible. Thus, CEQA establishes both a procedural obligation to analyze and make public adverse physical environmental effects, and a substantive obligation to conserve the environment.[292]

[290] Pub. Res. Code §§ 32000, *et seq.*
[291] Pub. Res. Code §§ 2100, *et seq*.
[292] *Id*. § 2102.

CHAPTER 6: MANAGED COASTAL AREAS

Garibaldis and Kelp Emerald Cove Catalina Island 2004 - Tom Ford

6.1 Introduction

The state and federal governments manage discrete areas of California's ocean and coast to preserve the state's diverse coastal and marine wildlife and habitat, and to protect key scenic, cultural, and economic resources. Protected areas include non-marine coastal parks, coastal state recreation areas, state beaches, and state seashores, marine and estuarine managed areas, state estuaries, and national marine sanctuaries, which are managed for a variety of purposes, as well as some privately-owned upland areas which also create some de facto protected areas along the coast.[293] This chapter provides a review of federal and state law that concerns managed areas located along the coast and in state waters. California law respecting marine managed areas is evolving, and the discussion below reflects the key changes in law and policy that occurred within the last five or six years.

6.2 Federal Managed Areas

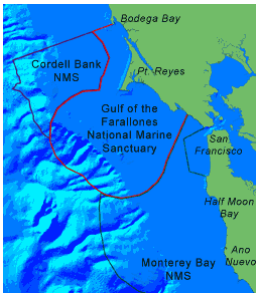
The federal government owns, administers, and/or manages significant tracts of land along California's coastline. For example, national parks and marine sanctuaries are properties administered by different federal agencies with specific conservation and recreation priorities in mind. Similarly, the Department of Defense manages the 125,000 acre Camp Pendleton Marine Base in San Diego County. The base contains wetlands, streams, and rivers which feed into the Pacific Ocean and is the only remaining large undeveloped area between Los Angeles and San Diego. This section gives an overview of these federal enclaves and areas, and addresses the legal basis for their establishment.

[293] For example, coastal areas around the nuclear power plants are off-limits. See 33 CFR Part 165.1155 (creating a 2000 yard safety zone around Diablo Canyon Nuclear power plant).

6.2.1 National Marine Sanctuaries

National marine sanctuaries are areas of the marine environment that are set aside and administered by the National Oceanic and Atmospheric Administration (NOAA) for various purposes, including protection of marine life, ecology, or areas or objects of "historical, scientific, educational, cultural, [or] archaeological" significance.[294]

The National Marine Sanctuaries Act prescribes the framework for designation and comprehensive management of these areas. The Secretary of Commerce has authority to designate areas of the marine environment as national marine sanctuaries and to promulgate regulations to implement the designation, subject to review and comment by relevant decision-makers, and the public.[295] Once an area is designated, NOAA manages the sanctuary in accordance with the NMSA and an approved sanctuary management plan. Amendments to the NMSA prohibit certain activities and uses within marine sanctuaries in order to protect resources, including the destruction or injury of sanctuary resources, the possession, transport, import/export, or sale of sanctuary resources, and interference with the enforcement of regulations promulgated for sanctuary protection.[296] Other activities, such as research, monitoring, and education, are frequently major components of each sanctuary's program of resource protection.[297]



The Sanctuaries and Reserves Division of NOAA currently manages four national marine sanctuaries in California. Federal sanctuary managers and staff generally direct the operations of individual sanctuaries in collaboration with state, local, and other entities. The national marine sanctuaries in California are: the 1,658-square mile Channel Islands National Marine Sanctuary (established in 1980) off the coast of Santa Barbara; the 526-square mile Cordell Bank NMS (established in 1989), located approximately 60 miles northwest of San Francisco; the 1,255-square mile Gulf of the Farallones NMS (established in 1981), located northwest of San Francisco Bay County; and the 5,322-square mile Monterey Bay NMS (established in 1992), which stretches from Marin to Cambria in Central California.

6.2.2 National Estuaries

Estuaries are partially enclosed bodies of water where upland rivers and streams mix with oceanic salt water. These highly productive aquatic systems provide key habitat and shelter for a wide variety of species, act as a natural buffer between land and ocean, dissipate storm surges, improve water quality, and provide an array of cultural, recreational, and aesthetic services.

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[294] 16 U.S.C. §§ 1431-1445b.
[295] 16 U.S.C. §§ 1433-1434, 16 U.S.C. §§ 1439.
[296] 16 U.S.C. § 1436.
[297] 16 U.S.C. § 1440.

The National Estuary Program is a network of 28 protected estuarine areas in the United States, administered by the Environmental Protection Agency (EPA). Congress established the National Estuary Program (NEP) in 1987 by amendments to the Clean Water Act to identify, restore, and protect selected estuaries of national interest.[298] The Act authorizes the Administrator of the EPA to convene a management conference with participants from federal, state, and local agencies, affected user groups, academic institutions, the public, and others, to develop a comprehensive conservation and management plan (CCMP) for each estuary. The CCMP addresses all aspects of environmental protection for the estuary, including restoration and maintenance of estuarine water quality, promotion of balanced indigenous population of shellfish, fish, and wildlife populations, and protection of recreation and designated uses. Funding to implement the CCMP in these selected estuaries is provided pursuant to Section 320 of the Clean Water Act.[299]

Three California estuaries have been designated as estuaries of national significance. These are: the San Francisco Estuary, Morro Bay and Santa Monica Bay (Morro Bay is also a "state estuary").[300] The NEP for these estuaries is a joint cooperative venture between the U.S. EPA, State Water Resources Control Board, and other State and local agencies and interest groups.

6.2.3 National Estuarine Research Reserves

The National Estuarine Research Reserve System is a network of twenty-six protected estuarine areas throughout the coastal United States. Congress established this system by enactment of the Coastal Zone Management Act of 1972,[301] as amended, to provide a representative system of estuarine ecosystems for long-term research, water quality monitoring, education, and coastal stewardship.

In California, the National Estuarine Research Reserves program is administered by a joint federal-state partnership between the National Oceanic and Atmospheric Administration (NOAA) and state agencies and universities. These entities, and others, collaboratively develop a set of common priorities and a Strategic Plan to guide the estuarine reserve for a 5-year period. NOAA provides funding, national guidance and technical assistance, while day-to-day management actions are carried out by state and local partners.

Three California estuaries are included in the program: the 3,710-acre San Francisco Bay Reserve, the 1,400-acre Elkhorn Slough Reserve, and the 2,500-acre Tijuana River Reserve. The lead state agencies for these reserves are the San Francisco State University Romberg Tiburon Center, California Department of Fish and Game, and

[298] 33 U.S.C. § 1330.
[299] *Id.*
[300] Pub. Res. Code § 28003. See State Estuaries, below.
[301] 16 U.S.C. §§ 1451, *et seq.*

Department of Parks and Recreation, respectively. Information about each of these reserves may be obtained on the NOAA website.[302]

6.2.4 National Parks System

The National Park Service has authority to supervise, manage, and control certain ocean and coastal areas within the National Park System as national parks, national monuments, national recreational areas, and national seashores for the benefit and inspiration of the public.[303] In California, a wide array of ocean and coastal habitat is protected under the auspices of the National Parks System. These include: the Channel Islands National Park, the San Francisco Maritime National Historic Park, Cabrillo National Monument, Point Reyes National Seashore, and other areas protected for their rich natural, scenic, historic, and cultural resources and values. In general, additions to the NPR are made by Acts of Congress, but the President proclaims national monuments pursuant to the Antiquities Act of 1906[304] on lands already under federal jurisdiction.

6.2.5 Military Areas

The federal government owns and operates military bases on large tracts of land in California and elsewhere. Access to these federal enclaves is restricted to military personnel, and authorized visitors, family members, and contractors. California law provides for cooperative planning with military bases and local jurisdictions if funding is provided.[305]

In California, two military bases abut the coastline. These are Camp Pendleton and Vandenberg Air Force Base. Camp Pendleton includes a 17-mile stretch of coastline in northern San Diego County. Vandenberg Air Force Base includes a 42-mile stretch of coastal property in Santa Barbara County. These properties were originally established by the federal government in 1942 and 1941, respectively, and are subject to the exclusive jurisdiction of the federal government. Because these lands are federal property, the federal government, and not the state, owns the lands below the mean high tide line, and federal law (subject to consistency with the Coastal Act),[306] applies to the management of these lands.

As the U.S. Constitution vests the power of defense with the federal government,[307] State involvement in the management of these federal enclaves is limited. The precise

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[302] http://nerrs.noaa.gov/Reserves.html.
[303] National Park Service Organic Act of 1916, 16 U.S.C. §§ 1, 2, 3, and 4.
[304] 16 U.S.C. §§ 431-433.
[305] Pub. Res. Code § 65560 (allowing for consideration of military base operations in development of local general plan)(see signing statement of Gov. Gray Davis, Stats.2002, c. 971 (S.B.1468)).
[306] See California Coastal Comm'n v. Granite Rock , 480 U.S. 572 (1987) (upholding the Commission's permit authority in National Forest lands).
[307] U.S. Const. Art. I, § 8 (vesting Congress with the power to provide for the common defense); Art IV, §3, (federal properties); Art. VI (supremacy clause).

application of a state or federal law which concerns military coastal areas is beyond the scope of this overview.[308]

6.3 State Managed Areas

California protects ocean and coastal living resources, habitat, ecosystems, and marine natural heritage through a system of state managed areas. California's classification system for marine managed areas is in flux. Currently, there are three broad classifications for state managed areas, including: 1) Marine Managed Areas, located below the mean high tide line, and consisting of state marine reserves, state marine parks, state marine conservation areas, state marine preservation areas, state marine recreational management areas, and state water quality protection areas;[309] 2) terrestrial and non-marine state managed areas, which includes units of the state park system such as coastal state parks, state beaches, and state recreation areas;[310] and 3) state estuaries.[311] This section gives an overview of the legal dimensions of California's managed areas, and discusses the evolution of law in this area.

6.3.1 Marine Managed Areas

Marine managed areas are marine or estuarine areas subject to tidal influence, that are designated by law or administrative action to protect all, or a part, of the living resources within the designated area, and to preserve cultural or other significant resources in the coastal sea.[312] Among other values, these areas protect a suite of resources, including living marine resources, ocean and coastal habitat, scenic views, water quality, recreational values, and cultural or geological resources. Areas where recreational or commercial fishing restrictions are in place, such as seasonal or geographic closures, are not included in this definition.

6.3.2 Historical Marine Managed Area Classifications

Historically, California has classified ocean and coastal managed areas within a broad array of eighteen marine and estuarine classifications and sub-classifications along the coast. These classifications and sub-classifications resulted from years of designations through legislative, administrative and statewide ballot initiatives. In general, designations were made by a single agency attempting to classify a diversity of regions or habitats through multiple classifications. In situations where specific areas required protection, a new classification was often developed rather than using a previously established designation.

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[308] See for example the recent decisions concerning the use of sonar in military training exercises. E.g., *Natural Resources Defense Council, Inc. v. Evans,* 364 F.Supp.2d 1083 (N.D.Cal. 2003), *app. dismissed Natural Resources Defense Council v. Gutierrez*, 457 F.3d 904 (9th Cir. 2006).
[309] Pub. Res. Code § 36602(d).
[310] Pub. Res. Code § 36601(13)(b).
[311] Pub. Res. Code § 36601(13)(b).
[312] Pub. Res. Code § 36602(d); and § 36620.

The multitude of classifications that evolved from this process include: Areas of Special Biological Significance, Clam Refuges (clam preserves), cultural preserves, ecological reserves, historical units, Marine Resource Protection Act ecological reserves, natural preserves (subunits of the state park system), refuges, reserves, state coastal sanctuary, state estuaries, state parks, state beaches, state recreation areas, state underwater recreation areas, state reserves, state seashores, and state wildlife areas. Two of these classifications—Cultural Preserves (a subunit of the State Park System), and State Recreation Units/Underwater Recreation Units—currently are not in use.

It is the intent of the legislature that these 18 classifications will cease to be used for areas in the marine and estuarine environments, with the single exception of state estuaries.[313] In addition, existing areas within these units that are located below the mean high tide line are subject to reclassification in accordance with a new simplified statewide classification system for marine managed areas, discussed below. However, the existing 18 classifications may still be used for the terrestrial and freshwater managed areas of the state.[314] The following section briefly describes the legal basis for these 18 historic classifications. An excellent expanded description of each of these classifications may be found in *Improving California's System of Marine Managed Areas*, Appendices B and C, as published by the Resources Agency.[315]

State Marine Water Quality Protection Areas/Areas of Special Biological Significance

Areas of Special Biological Significance (ASBS) are ocean areas where species and biological communities are protected from discharges of waste, and certain types of waste, in state waters. Pursuant to Pub. Res. Code § 36600, these areas are now known as state marine water quality protection areas. Non-point source pollution discharges are controlled in these areas to the extent practicable. The State Water Resources Control Board (SWRCB) has primary responsibility for these areas and establishes water quality protection areas under its authority to prohibit or control the discharge of waste to state waters.[316] Regional Water Quality Control Boards also have some responsibility in these areas.

There are 34 state water quality protection areas within the State: Redwood National Park ASBS, Kelp Beds at Trinidad Head ASBS, Kings Range National Conservation Area ASBS, Pygmy Forest Ecological Staircase ASBS, Kelp Beds at Saunders Reef ASBS, Del Mar Landing Ecological Reserve ASBS, Gerstle Cove ASBS, Bodega Marine Life Refuge ASBS, Bird Rock ASBS, Point Reyes Headlands Reserve and Extension ASBS, Double Point ASBS, Duxbury Reef Reserve and Extension ASBS, Farallon Island ASBS, James V. Fitzgerald Marine Reserve ASBS, Año Nuevo Point and Island ASBS, Pacific Grove Marine Gardens Fish Refuge and Hopkins Marine Life Refuge ASBS, Carmel Bay ASBS, Point Lobos Ecological Reserve ASBS, Julia Pfeiffer Burns Underwater Park

[313] Pub. Res. Code § 36601(13)(b).
[314] Pub. Res. Code § 36601(13)(b).
[315] Available at http://resources.ca.gov/ocean/Final_MMAs/PDF/index.html.
[316] Water Code § 13170.

ASBS, Ocean Area Surrounding the Mouth of the Salmon Creek ASBS, San Miguel, Santa Rosa, and Santa Cruz Islands ASBS, Santa Barbara Island and Anacapa Island ASBS, San Nicolas Island and Begg Rock ASBS, Mugu Lagoon to Latigo Point ASBS, Santa Catalina Island-Subarea One: Isthmus Cove to Catalina Head ASBS, Santa Catalina Island-Subarea Two: North End of Little Harbor to Ben Weston Point ASBS, Santa Catalina Island-Subarea Three: Farnsworth Bank Ecological Reserve ASBS, Santa Catalina Island-Subarea Four: Binnacle Rock to Jewfish Point ASBS, San Clemente Island ASBS, Newport Beach Marine Life Refuge ASBS, Irvine Coast Marine Life Refuge ASBS, Heisler Park Ecological Reserve ASBS, San Diego Marine Life Refuge ASBS, San Diego-La Jolla Ecological Reserve ASBS.

Clam Refuges (Clam Preserves)

Clam refuges are established to limit the harvest or collection of Pismo Clams within certain areas of San Luis Obispo County.[317] The Fish and Game Commission may designate clam-bearing beaches in San Luis Obispo County as Clam Refuges,[318] which are then managed by the Department of Fish and Game. In these areas, it is unlawful to take or possess any clam or to possess any instrument that is capable of being used to dig clams.[319] There are three Clam Refuges in California: Pismo-Oceano Beach Pismo Clam Preserve, Atascadero Beach Pismo Clam Preserve, and Morro Beach Pismo Clam Preserve.

Cultural Preserves

A Cultural Preserve is a unit of the California State Park System. Cultural Preserves are non-marine areas established within the boundaries of other state park units for the purpose of protecting features of outstanding cultural interest.[320] Protected features may include, among others, sites, buildings, or zones that represent significant places or events in California's history.[321] The Parks and Recreation Commission has authority for establishing recreation policies to govern the administration, protection, and development of units of the state park system. The Department of Parks and Recreation has primary responsibility for administering, protecting, and developing lands within the park system for the use and enjoyment of the public.[322] In California, there are no Cultural Preserves in or adjacent to the marine environment.

Ecological Reserves

Ecological Reserves are established to protect rare, "threatened or endangered native plants, wildlife, or aquatic organisms, or specialized habitat types, both terrestrial and

[317] Fish & Game Code § 10711.
[318] Fish & Game Code § 10711; Designations are made under 14 Cal. Code of Regs. §29.40.
[319] Fish & Game Code § 10500.
[320] Pub. Res. Code § 5019.74.
[321] Pub. Res. Code § 5019.74.
[322] Pub. Res. Code § 5001, §5003. For additional rights and duties of the department see: Pub. Res. Code § 50075, and §§ 5008-5008.1..

aquatic, or large heterogeneous natural marine gene pools for the future use of mankind..."[323] The Department of Fish and Game has authority to establish Ecological Reserves, with the approval of the Fish and Game Commission, and to manage and control reserves pursuant to law. The Commission may develop regulations to govern the use, operation, protection, administration, and enhancement of ecological reserves.[324]

There are 29 Ecological Reserves in California with marine or coastal subtidal components: Bair Island ER, Batiquitos Lagoon ER, Bolsa Chica ER, Buena Vista Lagoon ER, Del Mar Landing ER, Fagan Marsh ER, Farallon Island ER, Farnsworth Bank ER, Goleta Slough ER, Tomales Bay ER, Abalone Cove ER, San Dieguito Lagoon ER, San Miguel Island ER, Elkhorn Slough ER, Heisler Park ER, Peytonia Slough ER, Point Lobos ER, Upper Newport Bay ER, Corte Madera Marsh ER, Anacapa Island ER, Albany Mudflats ER, Marin Islands ER, Morro Rock ER, San Diego-La Jolla ER, Redwood Shores ER, Carmel Bay ER, Santa Barbara Island ER, and Offshore Rocks and Pinnacles ER.

Marine Resource Protection Act Ecological Reserves

Marine Resource Protection Act Ecological Reserves are ocean areas, at least two square miles in surface area, preserved in a natural state for scientific research, to the exclusion of all other human activities such as swimming, fishing, scuba diving and kayaking.[325] Under the California Constitution, the Fish and Game Commission is required to designate four ecological reserves along the mainland coast by January 1, 1994.[326] The Department of Fish and Game manages and provides funds for research in these areas, pursuant to general rules and regulations promulgated by the Commission.[327] There are four Marine Resource Protection Act Ecological Reserves in California: King Range Ecological Reserve, Big Creek Ecological Reserve, Vandenberg Ecological Reserve, and Big Sycamore Canyon Ecological Reserve.

Natural Preserves

Natural Preserves are subunits of the State Park System that are located within other state park units, including state beaches, state seashores, and state parks.[328] Natural Preserves are established to preserve rare, endangered, or threatened wildlife and plant species and their habitat, and other significant natural, geological, cultural, or topographic features. Habitat manipulation within these areas is greatly restricted. The Parks and Recreation Commission has authority for establishing recreation policies to govern the administration, protection, and development of units of the state park system. The Department of Parks and Recreation has primary responsibility for administering,

[323] Fish & Game Code § 1580.
[324] Ecological Reserve Act of 1968; Fish & Game Code §§ 1580-1586; Designations are made under 14 Cal. Code of Regs. § 630.
[325] California Constitution, Article XB; Fish & Game Code § 8610.14(a); Fish & Game Code §§ 1580-1586.
[326] California Constitution, Article XB; Fish & Game Code § 8610.14(a); 14 Cal. Code of Regs. § 630.5.
[327] Rules and Regulations: 14 Cal. Code of Regs. § 630.5.
[328] Pub. Res. Code § 5019.71; 14 Cal. Code of Regs. § 4759.

protecting, and developing lands within the park system for the use and enjoyment of the public.[329]

There are 27 Natural Preserves in California: Anderson Island Natural Preserve, Antone Meadows Natural Preserve, Big Lagoon Forest Natural Preserve –East, Big Lagoon Forest Natural Preserve –West, Big Lagoon Forest Natural Preserve –South, Burton Creek Natural Preserve, Doane Valley Natural Preserve, Edwin L. Z'berg Natural Preserve, Ellen Browning Scripps Natural Preserve, Hagen Canyon Natural Preserve, Heron Rookery Natural Preserve, Hungry Valley Oak Woodland Natural Preserve, Kaslow Natural Preserve, La Jolla Valley Natural Preserve, Least Tern Natural Preserve, Liberty Canyon Natural Preserve, Los Penasquitos Marsh Natural Preserve, Mitchell Caverns Natural Preserve, Morro Rock Natural Preserve, Natural Bridges Monarch Butterfly Natural Preserve, Pescadero Marsh Natural Preserve, Pismo Dunes Natural Preserve, San Mateo Creek Wetlands Natural Preserve, Santa Clara Estuary Natural Preserve, Theodore J. Hoover Natural Preserve, Udell Gorge Natural Preserve, Wilder Beach Natural Preserve, and Woodson Bridge Natural Preserve.

Refuges

Refuges are areas established through legislative action on state tidelands and submerged lands for the protection of fish, game, clams, quail, waterfowl, and marine life. An approved bill creates a Refuge and amends the Fish and Game Code.[330] The Fish and Game Commission exercises control over all fish, mammals, and birds in Refuges, with the exception of marine mammals (which are governed by the Marine Mammal Protection Act of 1972).[331] The Department of Fish and Game manages Refuges in accordance with the Fish and Game Code, and regulations promulgated by the Commission.

There are twenty refuges in California: Pacific Grove Marine Gardens Fish Refuge, California Sea Otter Game Refuge, Farallon Islands Game Refuge, San Leandro Waterfowl Refuge, Bolinas Game (quail) Refuge, City of Encinitas MLR, Dopheny Beach MLR, Hopkins MLR, Laguna Beach MLR, Niguel MLR, Dana Point MLR, Bodega MLR, Point Fermin MLR, South Laguna Beach MLR, San Diego MLR, Irvine Coast MLR, Newport Beach MLR, Encinitas MLR, Catalina Marine Science Center MLR, and James V. Fitzgerald Marine Reserve.

Reserves

The Fish and Game Commission establishes individual Reserves on a case-by-case basis for a variety of purposes, including protection of fish, invertebrate, and/or plant resources. The Commission also develops regulations for individual reserves regarding

[329] Pub. Res. Code § 5001, § 5003. For additional rights and duties of the department *see* Pub. Res. Code § 5007.5, and §§ 5008-5008.1.
[330] *See* Fish & Game Code §§ 10500-10514, 10650-10677, 10711, 107700-10913, and 10932. Fish & Game Code Div.. 7, chapt. 2 "Specific Refuge Boundaries".
[331] Fish & Game Code § 10502.

the type of marine life that may be taken from the reserve, the geographic area where take is permitted, permitting requirements, and other restrictions.[332] The Department of Fish and Game has management authority over designated marine and estuarine reserves. There are currently seven marine reserves and two estuarine reserves in California: Duxbury Reef Reserve, Gerstle Cove Reserve, Point Reyes Headlands Reserve, Estero de Limantour Reserve, Lover's Cove Reserve, Pismo Invertebrate Reserve, Point Cabrillo Reserve, Point Loma Reserve, and Robert W. Crown Reserve.

State Coastal Sanctuary

The California Coastal Sanctuary consists of all state tidelands and submerged lands along the entire California coast, except for the area located east of the Carquinez Bridge on Interstate 80. In general, oil and gas development and production is prohibited in the Sanctuary due to concern for damage and disruption to the marine environment, with certain limited exceptions. The California State Lands Commission has management responsibility for oil and gas leasing, where permitted, within the Sanctuary area.[333]

State Estuaries

A State Estuary is a saltwater bay or body of water and its watershed within the state, formed where freshwater streams and rivers flow into the ocean, and mix with the seawater.[334] Estuaries, and their watershed areas, support diverse wildlife, and a multitude of beneficial human uses, and merit high-priority action for preservation.[335] State Estuaries are designated by legislative action.[336] The California Environmental Protection Agency is required to develop a Management Plan for designated state estuaries, in cooperation with other entities. Morro Bay and San Diego Bay are designated State Estuaries, and Morro Bay and its watershed are a state estuary planning area.[337] *Of the 18 classifications previously used to designate ocean and estuarine areas, this is the only one that is still available for use.*

State Parks

A State Park is a unit of the California State Park System. Coastal State Parks are terrestrial or non-marine area of outstanding scenic or natural character, which may also contain significant historical, archaeological, ecological, geological, or other similar values.[338] The Parks and Recreation Commission has authority for establishing recreation policies to govern the administration, protection, and development of units of the state park system. The Department of Parks and Recreation has primary responsibility for administering, protecting, and developing lands within the park system

[332] 14 Cal. Code of Regs. §§ 27.20-27.51.
[333] Pub. Res. Code §§ 6240-6244.
[334] Pub. Res. Code § 28002(d).
[335] Pub. Res. Code § 28002(d).
[336] Pub. Res. Code § 28003.
[337] Pub. Res. Code § 28003.
[338] Pub. Res. Code § 5019.53.

for the use and enjoyment of the public.[339] There are 31 coastal state parks in California (*See* section 6.3.8, below for an extended discussion).

State Recreation Units: State Beaches

A state beach is one type of State Recreation Unit within the California State Park System. State beaches are located adjacent to the ocean or a bay, and provide swimming, boating, fishing, and other beach-oriented recreation for the public.[340] The Parks and Recreation Commission has authority for establishing recreation policies to govern the administration, protection, and development of units of the state park system. The Department of Parks and Recreation has primary responsibility for administering, protecting, and developing lands within the park system for the use and enjoyment of the public.[341] There are 65 state beaches in California (*See* 6.3.8 below for additional discussion).

State Recreation Units/State Recreation Area

A state recreation area is one type of State Recreation Unit within the California State Park System. A state recreation area is selected, developed and operated to provide quality outdoor recreation opportunities. [342] The Parks and Recreation Commission has authority for establishing recreation policies to govern the administration, protection, and development of units of the state park system. The Department of Parks and Recreation has primary responsibility for administering, protecting, and developing lands within the park system for the use and enjoyment of the public.[343] There are five coastal state recreation areas, and one coastal state vehicular recreation area in California.

State Recreation Units/Underwater Recreation Area

A state underwater recreation area is one type of State Recreation Unit within the California State Park System. An underwater recreation area is a non-marine aquatic (lake or stream) environment selected and developed to provide surface and subsurface recreational opportunities.[344] The Parks and Recreation Commission has authority for establishing recreation policies to govern the administration, protection, and development of units of the state park system. The Department of Parks and Recreation has primary responsibility for administering, protecting, and developing lands within the park system

[339] Pub. Res. Code § 5001, § 5003. For additional rights and duties of the department *see* Pub. Res. Code § 5007.5, and §§ 5008-5008.1.
[340] Pub. Res. Code § 5019.56(c).
[341] Pub. Res. Code § 5001, § 5003. For additional rights and duties of the department see: Pub. Res. Code § 5007.5, and §§ 5008-5008.1.
[342] Pub. Res. Code § 5019.56(a).
[343] Pub. Res. Code § 5001, § 5003. For additional rights and duties of the department see: Pub. Res. Code § 5007.5, and §§ 5008-5008.1.
[344] Pub. Res. Code § 5019.56(b).

for the use and enjoyment of the public.[345] Aside from marine sanctuaries, there is no underwater recreation area in California located on or adjacent to the ocean or coast.

State Reserves

A State Reserve is a terrestrial or non-marine unit of the State Park System. State reserves include both state natural reserves and state cultural reserves. A state natural reserve is an area containing outstanding natural or scenic characteristics, selected and managed to preserve native ecological assemblages, geological features and scenic qualities in an undisturbed state.[346] A state cultural reserve is an area containing cultural resources of statewide significance.[347] The Parks and Recreation Commission has authority for establishing recreation policies to govern the administration, protection, and development of units of the state park system. The Department of Parks and Recreation has primary responsibility for administering, protecting, and developing lands within the park system for the use and enjoyment of the public.[348] There are six state reserves on the California coast: Año Nuevo State Reserve, Caspar Headlands State Reserve, John Little State Reserve, Jug Handle State Reserve, Point Lobos State Reserve, and Torrey Pines State Reserve.

State Seashores

State seashores are units of the State Park System. State seashores are spacious coastline areas of outstanding scenic or natural character and significant recreational, historical, archaeological, or geological values.[349] The California Park and Recreation Commission has authority to designate state seashore units under recommendation by the Department of Parks and Recreation.[350] The Department has management authority over any designated state seashore unit. The California Legislature has established eleven state seashore zones, and their boundaries: Año Nuevo State Seashore, Clem Miller State Seashore, Mendocino Coast State Seashore, Monterey State Seashore, Point Mugu State Seashore, San Louis Obispo State Seashore, Santa Barbara Coast State Seashore, and Sonoma Coast State Seashore. Point Reyes National Seashore is the only designated national seashore within California.

State Wildlife Areas

Wildlife Areas are established for the purpose of propagating, feeding and protecting birds, mammals, and fish and establishing wildlife management areas or public shooting grounds.[351] The Department of Fish and Game, with approval of the Fish and Game

[345] Pub. Res. Code § 5001, § 5003. For additional rights and duties of the department see: Pub. Res. Code § 5007.5, and §§ 5008-5008.1.
[346] Pub. Res. Code § 5019.65(a).
[347] Pub. Res. Code § 5019.65(b).
[348] Pub. Res. Code § 5001, § 5003. For additional rights and duties of the department see: Pub. Res. Code § 5007.5, and §§ 5008-5008.1.
[349] Pub. Res. Code § 5019.62.
[350] Pub. Res. Code § 5002.3.
[351] Fish & Game Code §§ 1500-1505, 1525-1530.

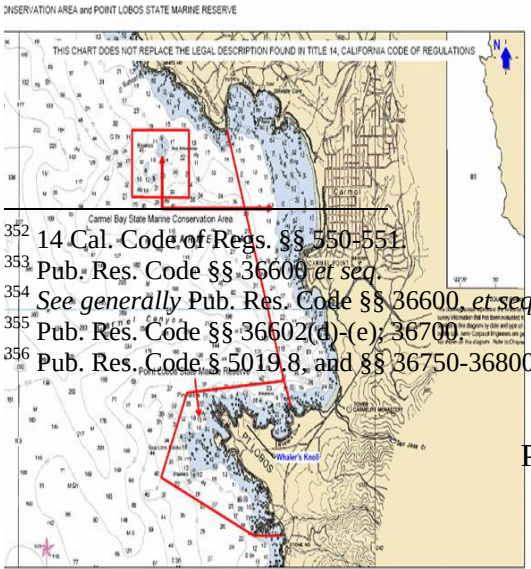
Commission, has authority to acquire, by purchase, lease, rental or otherwise, and to occupy, develop, maintain, use, and administer these areas. California regulations govern, among other factors, entry restrictions, permit requirements, and public use of Wildlife Management Areas.[352] There are fifteen Wildlife Areas (WA) in California: San Pablo Bay WA, Moss Landing WA, Big Lagoon WA, Decker Island WA, Eel River WA, Elk Creek Wetlands WA, Elk River WA, Fay Slough WA, Hill Slough WA, Lake Earl WA, Lower Sherman Island WA, Mad River Slough WA, Grizzly Island WA, Napa-Sonoma Marshes WA, and Petaluma Marsh WA.

6.3.3 New Statewide Classification System

The Marine Managed Areas Improvement Act (MMAIA) established a new, simplified classification system for state marine managed areas.[353] This system is a dramatic reorganization of the state's previous scheme that consisted of an array of 18 different marine managed area classifications and sub-classifications (reserves, preserves, refuges, areas of special biological significance, among others), described above. Existing managed areas within these eighteen classifications that are located below the mean high tide line are subject to reclassification in accordance with this new statewide classification system for marine managed areas (MMAs). The new system is intended to facilitate the efficient and effective management of these areas by resource managers, and to improve the public's ability to understand the regulatory structure.[354]

The MMAIA established six classifications of marine managed areas, and clear criteria for creating, administering, and enforcing management measures in these areas. The new marine managed area designations include: State marine reserves, State marine parks, State marine conservation areas, State marine cultural preservation areas, State marine recreational management areas, and State marine water quality protection areas.[355]

Marine Protected Areas (MPAs) are a subset of marine managed areas that includes marine reserves, marine parks, and marine conservation areas, and that are specific to the conservation of marine life and habitat to protect living marine resources. All new state marine and estuarine managed areas are to be classified into one of these categories, and ocean and coastal areas that were classified under the previous system will be re-classified according to the new designations. The MMAIA also establishes a State Interagency Coordinating Committee that is required to reclassify any existing marine or estuarine areas within the state park system into one of these groups.[356]



Each classification is characterized by the purpose for which an area is to be managed and the scope of protection that may/must be afforded to areas within each classification. In

[352] 14 Cal. Code of Regs. §§ 550-551.
[353] Pub. Res. Code §§ 36600 *et seq.*
[354] *See generally* Pub. Res. Code §§ 36600, *et seq.*
[355] Pub. Res. Code §§ 36602(d)-(e); 36700.
[356] Pub. Res. Code § 5019.8, and §§ 36750-36800.

brief: a state marine reserve is a non-terrestrial marine or estuarine area managed solely to protect or restore marine life or habitat in an area where no extractive activities (e.g. mining, fishing) are allowed, except under limited defined circumstances. A state marine park is a non-terrestrial marine or estuarine area where no commercial extractive activities are allowed. A state marine conservation area is a non-terrestrial marine or estuarine area designated solely to protect or restore marine life or habitat, where some commercial and/or recreational extraction of marine resources is allowed. A state marine cultural preservation area is a non-terrestrial marine or estuarine area where the extraction of cultural marine resources is prohibited. A state marine recreational management area is a non-terrestrial marine or estuarine area designated so the managing agency may provide, limit, or restrict recreational opportunities while preserving the area's basic resource values. A state water quality protection area is a non-terrestrial marine or estuarine area designed to protect marine species or biological communities from an undesirable alteration in natural resource quality.[357]

These classifications, thus, provide guidance to managers concerning the types of activities that are permitted in each area. By way of example, the designations generally permit commercial fishing in state marine conservation areas, state marine cultural preservation areas, and state marine recreational management areas, but not in state parks, reserves, or water quality protection areas.[358] Other activities may be expressly permitted or prohibited in specific areas by law (e.g. hunting).[359]

The MMAIA gives three different agencies responsibility for marine managed areas: the Department of Parks and Recreation, Department of Fish and Game, and the State Water Resources Control Board. Within state water quality protection areas, the State Water Resources Control Board has primary management authority.[360] The Department of Parks and Recreation has authority to manage state marine reserves, state marine parks, state marine conservation areas, state marine cultural preservation areas, state marine recreational management areas, and, if requested by the State Water Resources Control Board, state water quality protection areas.[361] The Department of Fish and Game has overlapping management authority with the Department of Parks and Recreation over state marine reserves, state marine conservation areas, and state marine recreational management areas designated for hunting purposes. The Department of Fish and Game may also regulate commercial and recreational fishing in MMAs, and has planning authority in marine protected areas (MPAs).[362]

The MMAIA also governs the process for establishing, deleting, or modifying marine managed areas.[363] The State Parks and Recreation Commission, Fish and Game Commission, and State Water Resources Control Board each have authority to designate,

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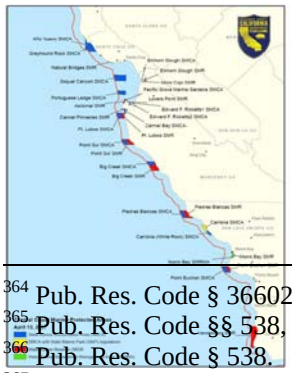
[357] Pub. Res. Code § 36602, and §§ 36700-36710.
[358] *Id.; also see* Pub. Res. Code § 5001.65.
[359] Pub. Res. Code § 5003.1
[360] Pub. Res. Code § 34725.
[361] Pub. Res. Code § 5001.4 and § 538.
[362] Pub. Res. Code § 5019.50, PUB. RES. CODE § 36725, and Fish & Game Code §§ 1590-1591.
[363] Pub. Res. Code § 5019.80.

delete, and/or modify specific marine managed areas.[364] Both the Fish and Game Commission and State Parks and Recreation Commission have authority to designate, delete, or modify state marine reserves, state marine recreational management, and state marine conservation areas, albeit with some restrictions and each must consult with the other agency involved. [365] The State Parks and Recreation Commission may designate, delete, or modify state marine cultural preservation areas, and state marine recreational management areas.[366] Finally, the State Water Resources Control Board may designate, delete, or modify state water quality protection areas.[367]

6.3.4 New Statewide Network of Marine Protected Areas

The Marine Life Protection Act (MLPA) passed in 1999, directs the Department of Fish and Game to design and manage a statewide network of Marine Protected Areas (MPAs). MPAs are a management tool primarily intended to sustain, protect or conserve marine life and habitat, and are therefore a subset of MMAs. The MLPA defines a MPA as "a named, discrete geographic marine or estuarine area seaward of the mean high tide line or the mouth of a coastal river, including any area of intertidal or subtidal terrain, together with its overlying water and associated flora and fauna that has been designated by law or administrative action to protect or conserve marine life and habitat."[368] MPA designations include state marine reserves, state marine parks, and state conservation areas.

The MLPA has the overall objective of improving the design and management of Marine Protected Areas (MPAs) in California waters through implementation of a comprehensive master plan and Marine Life Protection Program.[369] The MLPA requires the Commission to convene a team of ocean scientists, and other experts, to oversee and guide development and implementation of the master plan. This plan is to contain a set of scientifically sound and coherent recommendations that will be used to guide adoption and implementation of the Program, and decisions regarding the siting and design of new MPAs, and major modification of existing MPAs in state waters.[370]



The goal of the MLPA process is to develop a statewide network of marine protected areas (MPAs). As such, California's implementation of the MLPA is an ongoing process. In 2004, the Secretary of Resources convened an 8-member Blue Ribbon Task Force to assist the State in implementing the MLPA. This Task Force, in cooperation with a Master Plan Science Advisory

[364] Pub. Res. Code § 36602(b).
[365] Pub. Res. Code §§ 538, 36725.
[366] Pub. Res. Code § 538.
[367] Pub. Res. Code § 36725. The California Department of Health Services (DHS) has separate authority and standards to regulate commercial shellfish growing areas. DHS standards follow criteria developed by the National Shellfish Sanitation Program, which is administered by the U.S. Food and Drug Administration.
[368] Fish & Game Code § 2852(c).
[369] Fish & Game Code §§ 2853, 2855.
[370] Fish & Game Code §§ 2851(a), § 2855.

Team, and stakeholders, developed a master plan framework, which includes guidance, based on the MLPA, for the development of alternative proposals of MPAs statewide. The Task Force forwarded the master plan framework to the Fish and Game Commission. In August 2005, the Commission unanimously adopted that framework. Adoption of the master plan framework represents a first step toward developing a complete master plan for state MPAs, and is a significant achievement in the MLPA process. The reader is directed to the Marine Life Protection Initiative Master Plan for more current information.

6.3.5 Terrestrial and Non-Marine Units of the State Park System

Terrestrial and freshwater environments of the state are classified according to the existing eighteen classifications described in section 6.3.2 Historical Marine Managed Area Classifications. Several of these areas, including non-marine state parks, beaches, seashores, and recreation areas, fall under the auspices of the California State Park System. The legal framework for this system merits review and these land units are frequently near or adjacent to marine areas.

The California State Park System is a system of areas that contain outstanding natural, scenic and cultural resources and provide for quality outdoor recreation. The system consists of multiple types of management units that abut or adjoin the coast, situated landward of the mean high tide line, including, but not limited to, coastal state parks, coastal state recreation areas, state beaches, and state seashores. A state park is a terrestrial or non-marine area of outstanding scenic or natural character, oftentimes also containing significant historical, archaeological, ecological, geological, or other similar values.[371] A state recreation area is one type of state recreation unit that is selected based on its ability to withstand significant human impact, proximity to large population centers, and that is developed and operated for outdoor recreation purposes. [372] A state beach is another type of state recreation unit that is established to provide swimming, boating, fishing, and other beach-oriented recreation.[373] A State seashore is a relatively spacious stretch of coastline that possesses "outstanding scenic or natural character and significant recreational, historical, archaeological, or geological values."[374] The state currently operates 31 coastal state parks,[375] 6 coastal state recreation and vehicular recreation areas,[376] 65 state beaches, [377] and 11 state seashores.[378]

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[371] Pub. Res. Code § 5019.53.
[372] Pub. Res. Code § 5019.56(a).
[373] Pub. Res. Code § 5019.56(c).
[374] Pub. Res. Code § 5019.62.
[375] Coastal State Parks (SP): Andrew Molera SP, Angel Island SP, Año Nuevo SP, Border Field SP, China Camp SP, Crystal Cove SP, Del Norte Coast Redwoods SP, Fort Ord Dunes SP, Garrapata SP, Gaviota SP, Humboldt Lagoons SP, Julia Pfeiffer Burns SP, Leo Carillo SP, Limekiln SP, MacKerricher SP, Manchester SP, Mendocino Headlands SP, Montana de Oro SP, Morro Bay SP, Mount Tamalpais SP, Patrick's Point SP, Point Mugu SP, Prairie Creek Redwoods SP, Russian River SP, Salt Point SP, San Simeon SP, Sinkyone Wilderness SP, Tolawa Dunes SP, Tomales Bay SP, Van Damme SP, Wilder Ranch SP.
[376] State Recreation Areas (SRA) and Vehicular Recreation Areas (SVRA): Benicia SRA, Brannon Island SRA, Candlestick Point SRA, Franks Tract SRA, Harry A. Merlo SRA, Oceano Dunes SVRA.

6.3.6 Management Authority

The Department of Parks and Recreation and Parks and Recreation Commission have primary responsibility for administering, protecting, and developing lands within the park system for the use and enjoyment of the public.[379] The Department has general authority to administer, protect, and develop units of the Park System, and may promulgate rules and regulations for effective administration of those lands,[380] collect fees, and ensure that park attendance is held within appropriate limits.[381] The Department also has exclusive jurisdiction over property salvage and recovery operations in and on state lands.[382] The Commission assesses California's recreation needs, establishes general recreation policies to guide the State in the administration, protection, and development of the park system, and recommends specific actions to the Department.[383] The Commission also has authority to make recommendations to the Governor regarding California's needs for park and/or recreational facilities at the state or local level.

The Department of Parks and Recreation is the primary manager of state park lands, but may contract with appropriate providers for services, products, facilities, and programs to enhance visitor use, enjoyment and safety, consistent with a unit's classification and general plan provisions.[384] For example, state law permits private beach sponsorship, which means that the Department is authorized to enter into agreements with any person, business entity, or organization, for the maintenance, operation, or enhancement of state beaches, or beaches within other state park units, and their correlate facilities.[385] The State also encourages local government and the private sector to develop, maintain, and operate recreational resources on appropriate public lands.[386]

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[377] State Beaches (SB): Asilomar SB, Bean Hollow SB, Bolsa Chica SB, Cardiff SB, Carlsbad SB, Carmel River SB, Carpinteria SB, Caspar Headlands SB, Cayucos SB, Corona del Mar SB, Dockweiler SB, Doheny SB, El Capitan SB, Emma Wood SB, Gray Whale Cove SB, Greenwood SB, Half Moon Bay SB, Huntington SB, Leo Carillo SB, Leucadia SB, Lighthouse Field SB, Little River SB, Malibu Lagoon SB, Mandalay SB, Manresa SB, Marina SB, McGrath SB, Montara SB, Monterey SB, Moonlight SB, Morro Strand SB, Moss Landing SB, Natural Bridges SB, New Brighton SB, Pacifica SB, Pelican SB, Pescadero SB, Pismo SB, Point Dume SB, Point Sal SB, Pomponio SB, Refugio SB, Robert H. Meyer Memorial SB, Robert W. Crown Memorial SB, Salinas River SB, San Buenaventura SB, San Clemente SB, San Elijo SB, San Gregorio SB, San Onofre SB, Santa Monica SB, Schooner Gulch SB, Seacliff SB, Silver Strand SB, Sonoma Coast SB, South Carlsbad SB, Sunset SB, Thornton SB, Torrey Pines SB, Trinidad SB, Twin Lakes SB, Westport-Union Landing SB, Will Rogers SB, William Randolph Hearst Memorial SB, Zmudowski SB.

[378] Pub. Res. Code § 5001.6(b)(1)-(11). These are the Del Norte, Clem Miller, Mendocino Coast, Sonoma Coast, Año Nuevo, Monterey Bay, San Luis Obispo, Santa Barbara Coast, Point Mugu, Capistrano Coast, and San Diego Coast, State Seashores.

[379] Pub. Res. Code § 5001, and § 5003. For additional rights and duties of the department *see* Pub. Res. Code § 5007.5, and §§ 5008-5008.1.

[380] *Id.*

[381] Pub. Res. Code § 5001.96.

[382] Pub. Res. Code § 5005.6

[383] Pub. Res. Code § 539. *See also* State Park and Recreation Commission Statement of Policy (2005).

[384] *See* Pub. Res. Code §§ 5003.01- 5003.02.1.

[385] Pub. Res. Code § 5009.2.

[386] Gov't Code § 6100.

Other state agencies also have jurisdiction to carry out activities within units of the state park system. For example, the Department of Fish and Game has jurisdiction to enforce hunting laws in state recreation areas where hunting is permitted,[387] and the Department of Boating and Waterways has jurisdiction to plan, design, and construct boating facilities within the system pursuant to the Harbors and Navigation Code.[388]

6.3.7 Park Acquisition, Classification, and Planning

It is the state's policy that government entities closest to the recreation resources and the sources of recreation demand have the primary responsibility in providing needed recreation opportunities. In urban and suburban areas, such responsibilities generally fall to local government, to agencies of the state's cities and counties, and to its special districts. The State may aid local government in the acquisition, development and rehabilitation of local parks and recreation facilities through grants or technical assistance. The State also takes the lead in providing recreation opportunities where resources or recreation demands are of greater than regional significance.[389]

The State follows several steps in establishing a unit within the state park system, including acquisition, classification, and planning. The first step in this progression is the acquisition of the land. State policy is to selectively acquire land to meet the future needs of the public, with an emphasis on acquiring urban and coastal lands, as well as lands with valuable natural and cultural resources.[390] The State uses a variety of mechanisms to acquire lands and facilities for the park system, including purchase using bond monies and donation, or some form of conveyance of title, such as gift, grant, devise, or dedication.[391] The state also acquires lands through other mechanisms, such as land trades, leasing, joint ownership and the purchase of selected rights and easements, as appropriate.[392] The State is authorized to obtain the assistance of cities, counties, districts, and other entities in obtaining lands.[393] The State may also convey state park land to various entities. For example, the Public Resources Code allows the State to lease, or convey all rights, title or interest in state beach land, including easements or rights-of-way, to local government, for public recreation and beach purposes.[394]

Once the state has acquired a parcel of land for the park system, the State Park and Recreation Commission designates the area as a state park, recreation area, or other unit, according to a clearly defined classification scheme. State law governs the type of classification, taking into account, among other factors, the area's natural, scenic, and cultural features.[395] Once a unit is classified, the Department will prepare a preliminary

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[387] *See* Fish & Game Code § Div.2, Art. 3.
[388] Pub. Res. Code § 5003.6.
[389] State Park and Recreation Commission, Statements of Policy, May 1994, page 8.
[390] *Id* at page 9.
[391] Pub. Res. Code §§ 5005, 5006, 5006.1; 5006.4, 5009 (*see also* Pub. Res. Code §§ 5006-5006.5).
[392] *See* Pub. Res. Code § 5012.1
[393] Pub. Res. Code §§ 5150, 5003.03
[394] Pub. Res. Code §§ 5002.6, 5003.14.
[395] Pub. Res. Code §§ 5002.1, 5019.50 *et seq*.

general plan/environmental impact statement (EIR) that addresses aspects of environmental protection, development, operation, and management for the unit, which it submits to the Commission for approval.[396] The Commission is required to hold a public hearing to afford the public an opportunity to comment on both the classification (or reclassification) of a unit and any proposed general plan approval.[397] If approved, the general plan serves as the guide for the future development, management and operation of the resource.

6.3.8 Management of the State Park System

The Department of Parks and Recreation manages individual units within the park system consistent with state policy, and the unit's classification and general plan. The Department is required to ensure that the public has reasonable access to all units of the park system in order to benefit from these public resources.[398] The following section describes permitted uses within state parks, state recreation areas, state beaches, and state seashores.

State Parks

A state park is a terrestrial or non-marine area of outstanding scenic or natural character, oftentimes also containing significant historical, archaeological, ecological, geological, or other similar values. There are 31 coastal state parks in California.

Certain activities are expressly permitted or prohibited within state parks by law. California law expressly allows qualified parties to conduct nondestructive forms of scientific research within state parks after receiving prior approval from the director of Parks and Recreation.[399] In coastal state parks, and other units of the park system, California law prohibits commercial resource exploitation[400] and activities that are inconsistent with the park's classification, such as hunting.[401] The law restricts other activities, such as the landing of aircraft, and construction of related facilities and services, [402] and the use of motor vehicles. [403]

New developments or improvements within state parks must be made for the benefit of the public in a manner consistent with the preservation of the park's natural, scenic, cultural and ecological values. Improvements may be undertaken to provide for recreational activities, including, but not limited to, camping, picnicking, sightseeing, nature study, hiking, and horseback riding, so long as those improvements involve no major modification of lands, forests, or waters. Improvements that are incompatible with

[396] Pub. Res. Code §§ 5002.2; 21000 (concerning CEQA).
[397] Pub. Res. Code § 5002.3.
[398] Pub. Res. Code § 5003.5, § 5162.
[399] Pub. Res. Code § 5001.65.
[400] Pub. Res. Code § 5001.65.
[401] Pub. Res. Code § 5003.1.
[402] Pub. Res. Code § 5001.7.
[403] Pub. Res. Code § 5001.8(2).

the unit's classification and do not directly enhance the public's enjoyment of the resource and its natural and other values are prohibited.[404]

State Recreation Areas and Vehicular Recreation Areas

A state recreation area is one type of state recreation unit that is selected based on its ability to withstand significant human impact, proximity to large population centers, and that is developed and operated for outdoor recreation purposes.[405] There are five coastal state recreation areas and one coastal vehicular recreation areas in California.

California law expressly permits certain activities within state recreation areas and vehicular recreation areas, after receiving prior approval from the director of Parks and Recreation. These activities include: taking mineral resources for recreational purposes and conducting non-destructive forms of scientific research by qualified parties.[406] California law prohibits commercial resource exploitation,[407] and improvements or developments that are otherwise incompatible with the classification of these areas.[408] The law restricts other activities, including the landing of aircraft and development of associated facilities and services,[409] and the use of motor vehicles.[410]

Improvements may be undertaken to provide for recreation activities including, but not limited to, hunting, fishing, swimming, hiking, camping, water-skiing, and biking, so long as multiple uses of these areas will not threaten the safety and welfare of other recreation area users.[411] Hunting is prohibited in older recreation areas, but may be permitted in certain new state recreation areas if they are developed for that use.[412] As mentioned above, the Department of Fish and Game has jurisdiction to enforce hunting and fishing laws within state recreation areas.[413]

State Beaches

State beaches are one type of state recreation unit that lie adjacent to the ocean or bays. California has established 65 state beaches within the state to provide swimming, boating, fishing, and other beach-oriented recreation for the public.[414]

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[404] Pub. Res. Code §§ 5019.53; 5001.9(b).
[405] Pub. Res. Code § 5019.56(a).
[406] Pub. Res. Code § 5001.65.
[407] Pub. Res. Code § 5001.65. Limited commercial surf fishing is permitted at Prairie Creek Redwoods State Park pursuant to section 10 of H.R. 233, the Northern California Coastal Wild Heritage Wilderness Act, signed into law on October 17, 2006.
[408] Pub. Res. Code §§ 5001.9(b); 5019.56.
[409] Pub. Res. Code § 5001.7.
[410] Pub. Res. Code § 5001.8.
[411] Pub. Res. Code §§ 5003.1, 5019.56, § 5003.4 (requirements for camping and camping cabin facilities).
[412] Pub. Res. Code § 5003.1
[413] Pub. Res. Code § 5003.1.
[414] Pub. Res. Code § 5019.56(c).

As with other state park units, activities permitted on state beaches must be consistent with the unit's classification and general plan.[415] In addition, certain activities may be expressly permitted or prohibited by state law. For example, state law generally permits taking of mineral resources for recreation purposes, and non-destructive scientific research by qualified parties, with the prior approval of the director of Parks and Recreation.[416] On state beaches, and other units of the park system, California law prohibits commercial resource exploitation[417] and the development of new facilities that are incompatible with the unit's classification. The law also restricts other activities, including the landing of aircraft and development of associated facilities and services,[418] and the use of motor vehicles.[419]

State Seashores

State seashores are relatively spacious stretches of coastline that abut the ocean, or bays that open to the ocean, "possessing outstanding scenic or natural character and significant recreational, historical, archaeological, or geological values."[420] There are eleven state seashores demarcated by California law.[421] If another unit of the state park system is physically located within a state seashore, that area is managed according to its classification notwithstanding its location.[422] By law, only state wilderness, or a natural or cultural preserve may be located within the confines of another state park system unit.[423]

In certain cases, state law dictates whether an activity is permitted or prohibited on state seashores. State law encourages qualified parties to conduct nondestructive forms of scientific research on state seashores after receiving prior approval from the director of Parks and Recreation.[424] Other activities, such as landing aircraft, and development of related facilities and services, may be permitted, subject to restrictions.[425] State law prohibits commercial exploitation of resources,[426] and improvements that do not directly enhance public enjoyment of the resource, or are otherwise inconsistent with the unit's classification.[427]

State Estuaries

[415] Pub. Res. Code § 5001.9(b).
[416] Pub. Res. Code § 5001.65.
[417] Pub. Res. Code § 5001.65.
[418] Pub. Res. Code § 5001.7.
[419] Pub. Res. Code § 5001.8(2).
[420] Pub. Res. Code § 5019.62.
[421] Pub. Res. Code § 5001.6(b).
[422] Pub. Res. Code § 5001.6(a).
[423] Pub. Res. Code § 5001.95.
[424] Pub. Res. Code § 5001.65.
[425] Pub. Res. Code § 5001.7.
[426] Pub. Res. Code § 5001.65.
[427] Pub. Res. Code §§ 5001.9(b); 5019.62.

State estuaries are the sole environments located below the mean high tide line that are not subject to classification according to the state's new marine managed area classification system.[428] A state estuary is a saltwater bay or body of water and its watershed within the state, formed where freshwater streams and rivers flow into the ocean, and mix with the seawater.[429] These highly productive aquatic systems provide key habitat and shelter for a wide variety of species, act as a natural buffer between land and ocean, dissipate storm surges, improve water quality, and provide an array of cultural, recreational, and aesthetic services. Estuarine environments, and their watershed areas, thus, merit high-priority action for preservation.[430]

State estuaries are designated by legislative action. The California State Legislature has designated Morro Bay as a state estuary and San Diego Bay as an estuarine planning area.[431] In accordance with the Public Resources Code, the California Environmental Protection Agency (CALEPA) convened a Morro Bay Management Plan Task Force to develop a management plan for Morro Bay and its watershed, in cooperation with other entities.[432] The Morro Bay management plan includes provisions for the protection and enhancement of the health of the estuary, and identifies research needed to make decisions in revising the plan. CALEPA, through the Central Coast Regional Water Quality Control Board, and others, undertakes specified tasks with respect to the plan.[433]

[428] Pub. Res. Code § 36601(13)(b).
[429] Pub. Res. Code § 28002(d).
[430] Pub. Res. Code § 28002(d).
[431] Pub. Res. Code § 28003.
[432] Pub. Res. Code § 28004.
[433] Pub. Res. Code § 28004.

CHAPTER 7: LIVING MARINE RESOURCES AND HABITATS

Photo: Eileen Ecklund

7.1 Introduction

Managing living marine resources off California's coast involves a complex mosaic of federal, state, tribal and local governments. Regulation involves international and domestic agreements, federal and state statutes, and local ordinances. As discussed in Chapter 2, the federal Submerged Lands Act of 1953 gives California plenary authority to manage marine living resources from the shoreline to three miles offshore. Beyond the state's three-mile limit, the federal government retains jurisdiction for managing living marine resources, including fisheries, marine mammals, seabirds, and endangered and threatened species, within the U.S. Exclusive Economic Zone (EEZ). In international waters beyond the EEZ, international treaties govern the management of fish and mammal population. Although there are few treaties concerning fish populations on the high seas off the California coast,[434] the Inter-American Tropical Tuna Commission (IATTC) does make recommendations for the management of fishing of tuna and tuna-like species on the high seas as far north as Cape Mendocino.

Marine wildlife does not pay attention to these artificial offshore boundaries. Some populations remain exclusively in international or state waters, but more frequently,

[434] See e.g., *The Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*, Honolulu Sept. 4, 2000, has provisions for fish stocks that migrate in U.S. waters. It has been signed by the U.S. but not yet ratified. See Senate Treaty Doc. No. 109-1 (2005) . See also *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas*; *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, *Conference on Straddling Fish Stock and Highly Migratory Fish Stocks*, U.N. Doc. A/CONF.164/37, 34 I.L.M. 1542. For a discussion of current management of highly migratory species, see the Pacific Regional Fisheries Management Council's website concerning this issue: http://www.pcouncil.org/hms/hmsback.html.

marine wildlife move across these zones within their life span. Given this, it is clear that the effectiveness of state management of living marine resources, water quality, and habitat in state waters may affect federal efforts further offshore, and vice versa. In this Chapter, we discuss California's management regimes for endangered and threatened species, fishery resources, marine aquaculture, marine mammal populations, and non-native plant and animal species, and address how federal and state management is intertwined. We call special attention to important legal developments such as the Marine Life Protection Act of 1998, and other regimes for living marine resource management, set in place since publication of *California's Ocean Resources: an Agenda for the Future* in 1997.

7.2 Major Federal Fisheries Management Laws

The Endangered Species Act[435] provides broad protection for species of fish, wildlife and plants that are listed as threatened or endangered in the U.S. or elsewhere. Provisions are made for listing species, as well as for recovery plans and the designation of critical habitat for listed species. The Act outlines procedures for federal agencies to follow when taking actions that may jeopardize listed species, and contains exceptions and exemptions. The Act calls for cooperation with states in enforcement and recovery of listed species. The California Department of Fish and Game works under a joint enforcement agreement with Department of Commerce to enforce portions of the act.

The Magnuson-Stevens Fishery Conservation and Management Act[436] governs the conservation and management of all fishing within the U.S. Exclusive Economic Zone, all anadromous fish throughout their migratory range and all fish on the Continental Shelf. Foreign fishing of the EEZ and nearshore waters is prohibited unless conducted pursuant to a governing international fishery agreement and permit, and only if the foreign nation extends reciprocity to U.S. fishing vessels. The Act also establishes eight Regional Fishery Management Councils responsible for the preparation of fishery management plans to achieve the optimum yield from U.S. fisheries in their regions.[437] These counsels then provide recommendations for standards to be incorporated into fishery management plans and regulations. The Act prohibits unpermitted foreign fishing in U.S. waters, as well as driftnet fishing in U.S. waters**.** The Act directs the Secretary of State to certify specific instances to the Secretary of the Treasury, including when: a foreign nation has refused to negotiate, or failed to negotiate in good faith, an international fishery agreement allowing U.S. fishing vessels equitable access to fisheries over which the nation asserts exclusive fishery management authority; a foreign nation has failed to comply with its obligations under an international fishery agreement.[438] In 1996 amendments to the act, the Sustainable Fisheries Act placed a moratorium on new individual fishing quota programs.[439] The amendments prohibit any regional council from submitting and the Secretary from approving before October 1, 2000, any fishery

[435] 16 U.S.C. § 1531.
[436] 16 U.S.C. § 1801 *et seq.*
[437] 16 U.S.C. 1852, *et seq***.**
[438] 16 U.S.C. § 1825
[439] Pub. L. 104-297.

management plan, plan amendment, or regulation that creates a new individual fishing quota program.[440] In 2001 the Pacific Fisheries Management Council submitted for National Marine Fisheries Service approval the fixed-gear permit stacking permit program for the sablefish fishery, along with a season extension which effectively created a constrained IFQ program for that fishery.[441]

The Fish and Wildlife Act of 1956[442] directs the Secretary of the Interior to develop the policies and procedures necessary for carrying out fish and wildlife laws and to research and report on fish and wildlife matters. The Act establishes the Fisheries Loan Fund to make loans for financing or refinancing the cost of purchasing, constructing, equipping, maintaining, repairing or operating new or used commercial fishing vessels or gear.[443] It provides for continuing investigations regarding the production and flow to market of fish and fishery products, and provides for the Secretary to make recommendations to the President and Congress to aid in stabilizing the domestic fisheries; it takes steps for the development, advancement, management, conservation, and protection of fish and wildlife resources.[444]

The Migratory Bird Treaty Act of 1918[445] protects migratory birds throughout their range and implements treaties with Canada (1916), Mexico (1936), Japan (1972), and Russia (1976) for protecting migratory birds. The Act and underlying treaties provide for regulations governing hunting of migratory birds on both public and private lands.

The Marine Mammal Protection Act[446] prohibits the taking (defined broadly), importation, or possession of marine mammals or marine-mammal products. Marine mammals include sea otters, polar bears, all cetaceans (whales), pinnipeds (seals and sea lions), and sirens (manatees and dugongs). Some "incidental take" is allowed in commercial-fishery operations. The Act also created a Marine Mammal Commission and a Committee of Scientific Advisors on Marine Mammals. The US Fish and Wildlife Service (Department of the Interior) has jurisdiction over sea otters and polar bears; the National Marine Fisheries Service has jurisdiction over all other marine mammals.

The Marine Protection, Research and Sanctuaries Act[447] authorizes the Secretary of Commerce to designate marine areas as National Marine Sanctuaries. The Monterey Bay NMS in central California, the Gulf of the Farallones NMS and the adjacent Cordell Bank NMS off San Francisco Bay, and the Channel Islands NMS off southern California are designated under this act. A sanctuary can include both state and federal waters.

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[440] *Id*. §303(d).
[441] Per. Communication with Jim Seger, Economic Analysis Coordinator Pacific Fisheries Management Council (4/19/07).
[442] 16 U.S.C. §§ 742a - 754j-2.
[443] *Id*. § 742c.
[444] *Id*. § 742f.
[445] 16 U.S.C. 703 – 712.
[446] 16 U.S.C. §§ 1361 – 1407.
[447] 16 U.S.C. 1431 – 1434.

The Whaling Convention Act of 1949 ratifies U.S. obligations arising from the 1946 International Convention for the Regulation of Whaling.[448] It provides for a U.S. Commissioner to the International Whaling Commission and authorizes the Secretary of State to present objections to that Commission's regulations. It establishes as unlawful whaling, transporting whales or selling whales, in violation of the Convention. It sets up a whaling licensing framework, with fines and imprisonment for violations. Enforcement is primarily the responsibility of the Secretary of the Treasury in cooperation with the Secretary of Commerce. The Act does not prevent the taking of whales for scientific purposes. These are a sample of the federal laws that pertain to living marine resource management. Other relevant statutes are discussed throughout this chapter.

For a discussion of additional federal laws and treaties, the reader is encouraged to look at the U.S. Ocean Commission Report summarizing some of these laws and Federal WILDLIFE AND RELATED LAWS HANDBOOK published partly on line by the University of New Mexico, Center for Wildlife Law.[449]

7.3 Primary State Agencies

The California Department of Fish and Game is the lead state agency with responsibility for protecting and managing California's marine living resources. The Department operates under laws created by the California State Legislature, and regulations promulgated by the California Fish and Game Commission. Pursuant to various provisions of the Fish and Game Code, the Department of Fish and Game administers the California Endangered Species Act (CESA), Marine Life Protection Act (MLPA), and the Marine Life Management Act of 1998 (MLMA), and protects and manages ocean and coastal areas as habitat for a variety of species.

Other state agencies have authority to maintain the integrity of the state's waters, and to protect, maintain, and manage ocean and coastal living resources and habitat. For example, the California Department of Parks and Recreation administers state seashores, beaches, coastal parks and recreation areas, and manages a broad range of marine areas to protect living marine resources and habitat. The California Environmental Protection Agency (CalEPA) preserves, enhances, and restores the ecological health of state waters that provide habitat for a range of marine life, including endangered and threatened species. These entities, and others, fulfill their mandate pursuant to a wide array of federal, state, tribal and local laws, including: the California Environmental Quality Act, the California Endangered Species Act, the Marine Mammal Act, the Porter-Cologne Water Quality Control Act, the McAteer-Petris Act of 1965, the California Coastal Act, and the Oil Spill Prevention and Response Act of 1990.

7.4 Marine Life Management[450]

California enacted the Marine Life Management Act (MLMA) in 1999 to ensure the conservation, sustainable use, and restoration of the state's marine living resources, and

[448] 16 U.S.C. §§ 916-916*l*.
[449] See http://ipl.unm.edu/cwl/fedbook/index.html.

the conservation of healthy and diverse ecosystems.[451] To achieve these ends, the MLMA calls for:

- Conserving entire marine systems using an ecosystem-based approach;
- Allowing only sustainable ocean uses and activities;
- Recognizing the importance of non-extractive ocean uses;
- Recognizing the importance of extractive uses, such as fishing and aquaculture, to the state's economy and culture;
- Supporting and promoting scientific research on marine living resources and ecosystems;
- Using peer-reviewed scientific information in ocean management decision making;
- Involving stakeholders with diverse interests in marine living resource management decisions;
- Promoting the availability of information related to marine resources and fisheries;
- Encouraging regional approaches to managing ocean uses and activities that affect marine resources.[452]

Under the Act, both commercial and recreational fisheries are to be managed to assure the long-term economic, recreational, cultural and social benefits of the fisheries and the marine habitats upon which they depend. The primary management goal of the fishery management system is sustainability, and the Act provides for a set of actions which can support this goal.[453]

The Act focuses principally on fisheries, but also recognizes that the ocean, offshore California fulfills a number of environmental, aesthetic, recreational, educational, scientific, nutritional, social, and historic services for the people of the state.[454] The Act requires that the effects of regulations be allocated fairly between commercial and recreational fishermen[455] and the need to balance sport fishing interests with commercial fishing interests.[456] Another innovative feature of the act is that it authorizes the Department of Fish and Game to respond to and regulate emerging fisheries while developing and adopting an appropriate fishery management plan.[457]

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[450] Much of this section is taken from http://www.dfg.ca.gov/mlma/home.html.
[451] See generally, Fish & Game Code §§ 7050- 7090.
[452] Fish and Game Code § 7050(b)
[453] Fish & Game Code § 7056. This section provides in part that the fishery is to use optimum yield as its objective; preserve and enhancement of marine fishery habitat; rebuild depressed fisheries; limit bycatch; allow for voluntary efforts limit catch; coordinate sport and commercial catch; use adaptive management; utilize best available science in management decisions; minimize impact to small scale fisheries; use proactive management techniques and periodically review the effectiveness of the management decision. *Id.* §(a)-(m)
[454] Fish & Game Code § 7050(a).
[455] Fish & Game Code § 7072(c).
[456] *Compare* Fish & Game Code § 7055(c) *with* § 7055(d).
[457] Fish &Game Code § 7090, *et seq.*

Section 7073 of the Fish and Game Code requires development of a Master Plan that specifies the process and resources needed to prepare, adopt, and implement Fishery Management Plans for sport and commercial marine fisheries managed by the state.[458] The Master Plan identifies over 375 marine fisheries managed by the state and describes three different approaches to prioritizing them for future Fishery Management Plans. The top three fisheries for future Plans are sea urchins, California halibut, and nearshore sharks and rays.[459] Plan appendices outline fishery management authority and other regulatory regimes relative to California's marine fisheries and are a good source for the reader interested in this issue.[460]

7.4.1 Marine Fisheries

California's marine waters support diverse recreational and commercial fishery resources. The State regulates the use of these resources and manages marine resources and habitat to conserve marine life and foster healthy fisheries. The California Fish and Game Commission and the California Department of Fish and Game (DFG) have primary responsibility for California's inshore fisheries, and fishery resources from the baseline to three nautical miles offshore. The Fish and Game Commission formulates general policies for California fishery management, and regulates fishing (including bottom trawling) in state waters.[461] The Commission may also prohibit fishing for a number of marine species, including groundfish, tuna, pacific halibut, and salmon, in conformity with federal law.[462] The Department implements various commercial and recreational fishing programs, issues permits and licenses, consults with other agencies on fishery-related issues, inspects fish distribution facilities, investigates fish-related diseases, conducts research on fish conservation, propagation, and protection, and has numerous other related responsibilities.[463]

A number of other entities also take actions that concern marine life management off California. The Pacific Fishery Management Council (one of the eight regional councils established by the Magnuson Act) develops fishery management plans for certain federal fisheries offshore California. The Council may designate essential fish habitat, and take other actions, with respect to managed fisheries in state waters. Certain regional fishery management organizations, such as the Pacific Salmon Commission, also have conservation and management responsibilities with respect to certain fish species. In addition, the Pacific States Marine Fisheries Commission, a non-regulatory entity composed of California, Alaska, Idaho, Oregon, and Washington, promotes the coordinated management of fisheries in state waters. Beyond the state limit, the federal agency with primary authority for fishery management is the National Marine Fisheries

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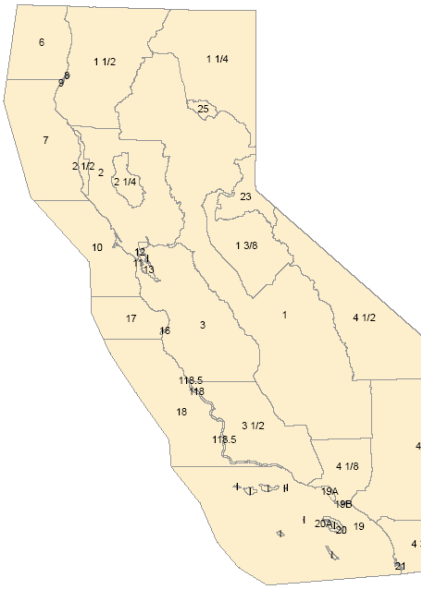
[458] The Mater Plan can be found at http://www.dfg.ca.gov/mrd/masterplan/index.html.
[459] *Id*.
[460] See Dept. of Fish and Game, *The Master Plan: A Guide for the Development of Fishery Management Plans*, Appendices D-F (Dec. 2001), available at http://www.dfg.ca.gov/MRD/masterplan/index.html. .
[461] Fish & Game Code §§ 200-250, and Statutes of 2004, effective January 1, 2005.
[462] Fish & Game Code §§ 8403 313, 316, 316.5.
[463] Fish & Game Code § 710, *Id.* § 711, Fish & Game Code §§ 1000-1017, *Id.* §§ 1050-1110 (licensing provisions), *Id.*
§ 7065.

Service (NMFS), an agency of the National Oceanographic and Atmospheric Administration (NOAA).

General Aspects of California Fisheries Law[464]



California's coastline is divided into nineteen commercial fishing districts for regulatory purposes.[465] The map at the left margin shows an approximate position of these regulatory districts (courtesy of Department of Fish and Game, Marin Division). Regulatory measures such as area closures or gear restrictions may apply in some of these districts, but may not others.[466]

Species Regulations

Unless mentioned by name in the regulations, any species may be taken without restriction for commercial purposes. If a species is mentioned in regulations, it may be taken only under the conditions described in those regulations. Species groups listed in the code of regulations include sport fisheries and commercial fisheries for a variety of marine life, including: abalone, anchovy, bait fish, barracuda, several basses, broadbill swordfish, California halibut, clams, corbina, several crabs, several croakers, goby, grunion, hagfish, herring, kellet's whelk, killfish, limpets, lingcod, spiny lobster, marlin, mussels, octopus, oysters, Pacific bonito, plainfin midshipman, prawns, queenfish, rays, rockfish, sablefish, salmon, sardines, sea cucumber, sea urchin, shad, several sharks, shiner perch, shrimp, skates, smelt, squid, sculpin, sturgeon, sunfish, surfperch, several tunas, and yellowtail. The Fish and Game Code prohibits commercial fishing for several dozen other species, including some invertebrates such as sculpin and krill, and some fish, such as white sharks, garibaldi, and marlin.[467]

Gear and Season Regulations

The Fish and Game Code lists the types of fishing gear that may be used for fishing, such as gill and trammel nets, round-haul nets, beach nets, dip nets, fishing lines, spears, traps, shovels, among others. Each type of gear is subject to restrictions. For instance, gill nets or trammel nets must have a mesh size greater than 8.5 inches and may not be longer than 9,000 feet when used in the California halibut fishery in district 19 (south of the Santa

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[464] This section taken more or less from http://www.dfg.ca.gov/mlma/home.html.
[465] Fish & Game Code § 11000 *et seq.*
[466] Guide to California's Marine Life Management Act, Fish and Game Commission publication, at http://www.dfg.ca.gov/mlma/home.html.
[467] *Ibid.*

Barbara-Ventura County line). Commercial fishermen, fishing vessel operators, crew members, and others must obtain various licenses and permits.[468]

The Commission has primary responsibility for setting regulations for most recreational fisheries. State marine sport fishing regulations include restrictions on catching and retaining certain species, but not others. For example, state regulations set bag limits on some species, such as rockfish and California halibut, but not on others such as albacore and starry flounder. There is a zero limit on giant sea bass, garibaldi, and white shark.[469] Other regulations specify open and closed seasons, and permissible fishing gear.[470]

7.4.2 State Fishery Policy

The Marine Life Management Act (MLMA) sets the state's policy for marine commercial and recreational fisheries.[471] Both commercial and recreational fisheries are to be managed to assure the long-term economic, recreational, ecological, cultural, and social benefits of those fisheries and the marine habitats upon which they depend.[472] With this in mind, the MLMA establishes a marine fishery conservation program with the primary objective of achieving the sustainable use of California's fishery resources. In addition, the system seeks to prevent overfishing, rebuild depressed stocks, ensure conservation, promote habitat protection and restoration, and develop information for management decisions.[473]

The fishery management system is mandated to pursue sustainability by focusing on a number of objectives. First, the long-term health of the resources should not be sacrificed for short-term benefits. Second, overfished fisheries are to be rebuilt to the highest sustainable yields allowed by environmental and habitat conditions. Third, the MLMA emphasizes acting for the long-term rather than short-term benefit, including commercial, recreational, cultural and social benefits. Also, the MLMA recognizes the close linkage between the health of many fish populations and their habitat.

The MLMA requires that the effects of regulations be allocated fairly between commercial and recreational fishermen.[474] The MLMA recognizes the importance of commercial and recreational fisheries to Californians and the need for allocating marine living resources fairly, the MLMA calls for maintaining fish populations that are sought by sport anglers at levels that will provide satisfying levels of sport use.[475] At the same time, the MLMA encourages the growth of commercial fisheries.[476]

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[468] Guide to California's Marine Life Management Act, *supra* note 466
[469] Fish & Game Code §§ 8380 (giant sea bass); 8598 (garibaldi); 8599 (white shark);.
[470] *Guide to Marine Life Management Act, supra,* note 466.
[471] Fish & Game Code §§ 7055, 7056.
[472] Fish & Game Code § 7055(a).
[473] Fish & Game Code § 7056.
[474] Fish & Game Code § 7072(c).
[475] Fish & Game Code § 7055(c).
[476] Fish & Game Code § 7055(d).

7.4.3 Scope of the MLMA

Until the passage of the Marine Life Management Act (MLMA) in 1998, commercial fishery management was enacted primarily through statutes adopted by the California Legislature. The MLMA, and more specifically the Nearshore Fisheries Management Plan, authorizes the Commission to enact regulations in nearshore commercial fisheries. The fishery management system established by the MLMA applies to four groups of fisheries, and within a defined geographic area.[477] The first group includes those fisheries for which the Fish and Game Commission held some management authority before January 1, 1999. This group includes the list of marine life presented above. Future regulations affecting these fisheries must conform to the MLMA. The second group of fisheries includes the nearshore finfish fishery and the white seabass fishery.[478] The MLMA calls for the development and adoption of a fishery management plan for each of these fisheries by January 2002. The third group of fisheries comprises so-called emerging fisheries—that is, new and growing fisheries that are not currently subject to specific regulation. The Commission must adopt criteria for identifying emerging fisheries before it may regulate them.[479] The final group of fisheries is those fisheries for which there is no statutory delegation of authority to the Commission or Department. In the case of these fisheries, the Department may prepare, and the Commission may adopt, a fishery management plan, but that plan cannot be implemented without a further delegation of authority through the legislative process. The MLMA applies only to ocean and bay waters, and not upstream from the mouths of rivers, unless that authority already existed on January 1, 1999.

7.4.4 MLMA Policies

The state has established four broad policies for achieving its goals of sustainable use, conservation, and restoration of California's marine living resources and ecosystems. These are: 1) the use of sound, peer-reviewed science in decision-making;[480] 2) the use of a high level of constituent involvement; 3) the use of adaptive management strategies; and 4) the use of socio-economic considerations in decision-making.[481]

Fishery management decisions are to be based on the best available scientific information and other relevant information, including what the MLMA calls essential fishery information.[482] Essential fishery information includes the biology of fish, population status and trends, fishing effort, catch levels, and impacts of fishing. The MLMA calls upon the Department to conduct and support research to obtain essential fishery information for all marine fisheries managed by the State, to the extent feasible.[483] The Department is required to use this sound scientific information when preparing Fishery

[477] Fish & Game Code § 7051(a); *Id.* §§ 7051(b), 7071(a)-(c).
[478] Fish & Game Code § 7071(c).
[479] *Also see* Fish & Game Code § 7090.
[480] *Id.* §7062
[481] *Id.* §7055 & 90.1, *et seq.*.
[482] Fish & Game Code § 7050(b)(6), §§ 7060-7062; § 7062(b); also see *Id.* § 7072(b), § 7075, §§ 7083-7086.
[483] Fish & Game Code § 7060(a) and (b).

Management Plans (FMPs) and Plan amendments, preparing fishery management protocols, and determining of levels of overfishing,[484] bycatch,[485] and other factors, including fishing practices that degrade habitat. [486]

The MLMA also builds upon traditional public participation in government decision-making by calling for significant constituent involvement in fishery management. In general, the MLMA calls for involving all interested parties in living marine resources decision-making and for disseminating accurate information on the status of marine life and its management. [487] The MLMA uses a variety of mechanisms to increase the levels of communication and cooperation between the Department and the Commission, specialists in marine science, affected parties and others, in dealing with complex fishery management issues. [488] The MLMA specifically mentions application of constituent involvement policies in the following fisheries management activities: designing and conducting research, preparing the annual state of the fisheries report, preparing fishery management plans, developing the master plan for fisheries management, developing a process for involving constituents in the preparation of FMP amendments and research plans in the master plan, designing research protocols for individual FMPs, and developing criteria for determining when a FMP may be exempted from peer review.[489]

The MLMA calls for the use of adaptive management in fisheries management to allow for changes in environmental, economic, or other, circumstances. The MLMA defines "adaptive management" as "a scientific policy that seeks to improve management of biological resources, particularly in areas of scientific uncertainty, by viewing program actions as tools for learning. Actions shall be designed so that even if they fail, they will provide useful information for future actions. Monitoring and evaluation shall be emphasized so that the interaction of different elements within the system can be better understood."[490] The MLMA seeks to ensure that the fishery management decisions are proactive and responsive to changing environmental and socio-economic conditions.[491] To this end, the Department and Commission are required to review periodically the effectiveness of the system in achieving sustainability goals.[492] The MLMA also requires that the master plan for fisheries and fishery management plans includes periodic review and amendment,[493] and suggests that the annual report on the status of fisheries recommends changes in the management system. Finally, the MLMA emphasizes the importance of socio-economic considerations in ensuring that activities affecting marine life, including fisheries, are sustainable. Since the Act is largely devoted to the management of fisheries, it pays substantial attention to the values and interests of fishers

[484] Fish & Game Code § 7086.
[485] Fish & Game Code § 7085.
[486] Fish & Game Code § 7083(b); *Id.* § 7084(a).
[487] Fish & Game Code § 7050(b)(7), § 7050(b)(8).
[488] Fish & Game Code § 7059(a)(4); *Id.* § 7059(2); *Id.* § 7059(a)(1); *Id.* § 7056(h), (k), (l).
[489] Fish & Game Code §§ 7060(c), 7065(a), 7076(a), 7073(a), 7073(b)(4), 7074(b), 7075(c).
[490] Fish & Game Code § 90.1.
[491] Fish & Game Code § 7056(l).
[492] Fish & Game Code §§ 7056(m); 7059 (4)(b)(1).
[493] Fish & Game Code § 7073(b)(5), 7087.1.

and others interested in fisheries.[494] Under the MLMA, FMPs must present information on economic and social factors related to the fishery.[495] If an FMP includes new management measures, it must analyze their anticipated effects on fishermen as well as coastal communities and businesses that rely on the fishery.[496] Any increases or restrictions on catches are to be allocated fairly among recreational and commercial fishermen.[497]

7.4.5 Fishery Management Plans

The MLMA requires Fishery Management Plans (FMPs) for the State's major recreational and commercial fisheries. FMPs are planning documents that form the basis for the comprehensive management of sport and commercial fish stocks in California waters.[498] These documents include a broad array of information, and provide a focus and basis for discussions among scientists, fishermen, conservationists, and others, about issues that affect the sustainability of a fishery. The contents of a FMP include: 1) a description of the fishery; 2) fishery science and essential fishery information; 3) fishery conservation and management measures, including gear, area, and other access restrictions; 4) habitat provisions; 5) provisions regarding bycatch and discards; 6) criteria for identifying when the fishery is overfished, and for rebuilding the fishery; 7) procedures for plan review and amendment; and 8) a list of statutes and regulations, if any, that will become inoperative with respect to the fishery upon the Commission's adoption of implementing regulations for the FMP, or plan amendment.[499] Initially, the MLMA calls for the development and implementation of fishery management plans for the white seabass and nearshore finfish fisheries, which have been completed.[500]

The Department must develop these and other FMPs, according to a structured process,[501] using the best scientific information available and other relevant information.[502] FMPs must allocate any increases or decreases in allowable catches fairly between commercial and recreational fishermen.[503] The Department is also responsible for developing regulations, and amendments to existing plans, for consideration by the Commission.[504]

In addition to the white seabass and finfish FMPs, the MLMA requires the Department to submit to the Commission a master plan for the State's fisheries.[505] The master plan

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[494] Fish & Game Code § 7050(c) and (d), 7056(f), (i), (j).
[495] Fish & Game Code § 7080(e).
[496] Fish & Game Code § 7083(b).
[497] Fish & Game Code § 7072(c).
[498] Fish & Game Code § 7072.
[499] Fish & Game Code §§ 7080-7088.
[500] See http://www.dfg.ca.gov/mrd/nfmp/entire.html (nearshore plan); www.dfg.ca.gov/mrd/wsfmp/index.html (white sea bass plan).
[501] Fish & Game Code §§ 7075-7078.
[502] Fish & Game Code § 7072 (b) and (c).
[503] Fish & Game Code § 7072 (b) and (c).
[504] Fish & Game Code § 7075 and § 7078.
[505] Fish & Game Code § 7071.

must identify the resources needed to prepare, adopt, and implement FMPs for state-managed sport and commercial fisheries.[506] Among other elements, the master plan must include a prioritized list of state-managed fisheries for preparation of FMPs, and a description of the Department's research, monitoring, and data collection activities for each of the fisheries. The Master Plan must also include processes for the periodic review and amendment of the master plan, and for the meaningful involvement of constituents, and others, in the development of FMPs and research plans.[507] Once the master plan is adopted, the State is required to develop interim fishery research protocols for at least the three highest priority fisheries identified in the master plan. The Department will use the interim fishery protocol to manage these high-priority fisheries until FMPs are developed and implemented.[508]

7.5 State Enforcement of the Magnuson-Stevens Fishery Conservation and Management Act (FCMA)

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Stevens Act) is the principal statute governing federal fisheries management in federal waters. The MSA authorizes the federal government, through NOAA, to regulate fishing in the Exclusive Economic Zone, from the state's three nautical mile limit to 200 nautical miles offshore.[509] Many of these resources may spend part of their life span in state waters and, thus, the efficacy of federal fishery management may have important implications for California.

The Magnuson Act created eight regional fishery management councils, with oversight from NOAA, to manage and protect federal fishery resources. In California, the Pacific Fishery Management Council (PFMC) is responsible for federal fishery management. The PFMC is composed of representatives from California, Oregon and Washington, and several federal representatives. The PFMC is charged by statute with developing Fishery Management Plans (FMPs) for fish stocks within its jurisdictional area that are in danger of overfishing, or otherwise need management, to be implemented by NOAA.[510]

Under the Magnuson Act, California may regulate fishing vessels in federal waters under certain limited circumstances.[511] In the absence of an FMP, California may regulate

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[506] Fish & Game Code § 7073(a) and (b).
[507] Fish & Game Code § 7073(b) and (c).
[508] Fish & Game Code § 7074.
[509] As discussed previously and in note 511, below, amendments to the act extend the federal government's management authority, in a limited fashion, to high seas fisheries as well.
[510] *Understanding Fisheries Management: a manual for understanding the Federal Fisheries Management Process, including analysis of the 1996 Sustainable Fisheries Act*, Second Edition, Publication 00-005 of the Mississippi-Alabama Sea Grant Consortium.
[511] See *People v. Weeren*, 26 Cal.3d 654, 163 Cal.Rptr. 255 (1980) (where state has request interest in extraterritorial enforcement and no federal law preempts state enforcement, DFG could enforce swordfish regulations). The 1996 amendments to the Act through the Sustainable Fisheries Act arguably broadened state authority, though as U.S. Commission on Ocean Policy has noted significant ambiguity remains:

> The SFA amended the section to provide that a state may regulate a fishing vessel outside its boundaries when a fishing vessel is registered under the laws of that state, and one of two conditions apply: (1) there is no fishery management plan or other applicable federal fishing

fishing vessels registered in California in federal waters. Where an FMP exists, California may also regulate state-registered fishing vessels to the extent that California's laws and regulations are consistent with the FMP and applicable federal regulations.[512] Generally, this means that state regulations must be more restrictive than federal fishery requirements. Finally, California may regulate fishing outside state boundaries if an FMP delegates management authority to the state, and the state's laws and regulations are consistent with the FMP for the fishery in which the fishing vessel is operating.

Conversely, the federal government, at times, has authority to manage fisheries and fish habitat in state waters. For example, the Pacific council regulated ground fisheries in federal and state waters.[513] The Magnuson-Stevens Act preempts state authority to manage fisheries in state waters where state fishing activities within a federally-regulated fishery occurs predominantly in the EEZ and the state has acted in a way that will substantially and adversely affect the FMP.[514] The Magnuson-Stevens Act also allows regional councils to designate essential fish habitat (EFH) throughout the range of the managed species, which may include habitat in state waters for some life stages. The regional councils may also recommend conservation measures to preserve EFH in state waters, which California must follow.

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regulations for the fishery in which the vessel is operating; or (2) the state's laws and regulations are consistent with the fishery management plan and applicable federal fishing regulations for the fishery in which the vessel is operating.[16 U.S.C. § 1856(3)(A).] Although language was introduced to define "registered," no definition was included in the SFA amendments as enacted. The 1996 SFA amendments attempted to address the question of when states would be preempted by federal fishery management plans from regulating registered vessels in the EEZ. However, substantial confusion continued because the amendments did not entirely preempt state regulation when a federal plan and regulations were in place. States could still regulate state-registered vessels if their laws and regulations were "consistent" with "the fishery management plan and applicable federal fishing regulations." [16 U.S.C. § 1856(2)(A)]. The significant term "consistent" was not defined, however. While it is clear that less restrictive regulation would not be consistent with the conservation regime of FMPs, it is not entirely clear that more restrictive state regulations are consistent. Several courts have held that because the purposes of the Magnuson-Stevens Act include development of the fishing industry, state regulations that restrict fishing in the EEZ beyond the level allowed in federal FMPs are not consistent.[*see, e.g. Vietnamese Fishermen Ass'n. of America v. California Dept. of Fish and Game*, 816 F. Supp. 1468 (N.D. Cal. 1993).] Less directly, questions have arisen about whether state laws that prohibit landings of fish that can be legally harvested in the EEZ under an FMP are consistent. … Most states have made the issue moot, however, by defining *registered* for purposes of the Act to include vessels owned by parties who have landing or wholesale licenses. The 1996 revisions to the provision deleted the language concerning direct or indirect regulation. Instead, the amendments included a number of circumstances in which a state could regulate fisheries beyond state waters. For example, the amendments contain provisions under which states, in the absence of an FMP, have jurisdiction and authority to regulate vessels in specifically designated areas of the EEZ, even when the vessels are not registered in the state.[16 U.S.C. § 1856(3)(B)-(C).] In addition, in certain cases, states can be delegated authority under an FMP to regulate beyond state waters if the state's laws and regulations are consistent with the FMP. Again, the term "consistent" is not defined.

U.S. Commission on Ocean Policy, App. 6 pp.. 40-42.

[512] Fish & Game Code §§ 7650, *et. seq.*

[514] 16 U.S.C. 1856(b).

The multi-jurisdictional dynamics of fisheries regulation is perhaps best illustrated by the nearshore fishery. The Nearshore Fisheries Management Act (part of the Marine Life Management Act) sets minimum size limits for the commercial take of ten nearshore species. However, some of California's commercial fisheries are also managed by the PFMC. In addition, the Fish and Game Commission has enacted regulations to bring commercial fishery management within state waters into conformity with federal management. Sixteen of the 19-nearshore species that are now being managed under the Nearshore Fisheries Management Plan are under the federal plan. These include the 13 species of nearshore rockfish,[515] California scorpionfish, cabezon, and kelp greenling.[516]

7.6 International Regulation

Several international commissions indirectly regulate fisheries in which California fishers are involved. For example, the Magnuson-Stevens Act and the Northern Pacific Halibut Act permit the International Halibut Commission to develop regulations concerning halibut fishing. The Department of Fish and Game adopts these regulations by statute.[517]

The harvest and landing of several species of tuna is an excellent example of the complexity of international and federal laws regulating many fisheries. Congress passed the Marine Mammal Protection Act (discussed below) in 1972 at least partially in response to public concern over the high dolphin mortality in the eastern tropical pacific yellowfin tuna fishing industry.[518] The Marine Mammal Act was amended in 1988 adding additional criteria to be satisfied for a tuna-harvesting nation to be considered comparable to that of the United States, and thus have access to the U.S. market.[519] In 1990, Congress enacted the Dolphin Protection Consumer Information Act, ("DPCIA"). The DPCIA made it a violation of section 5 of the Federal Trade Commission Act ("FTCA") for any producer, importer, exporter, distributor, or seller of any tuna product sold in or exported from the United States to label that product as "dolphin-safe" if the product contained tuna harvested (a) on the high seas by a vessel engaging in driftnet fishing, or (b) in the Eastern Tropical Pacific by a vessel using the purse seine method, unless the tuna was accompanied by various statements demonstrating that no dolphin was intentionally encircled during the trip in which the tuna was caught.

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[515] Through time, individual species have come to be managed independent of the *Sebastes* complex. By 2000, the *Sebastes* complex was completely eliminated and the remaining rockfish that had been managed under the complex were split into three rockfish groups: (1) nearshore rockfish, generally found close to shore or in shallow water, (2) shelf rockfish, found in deeper waters, and (3) slope rockfish which are found in the deepest waters was created. California scorpionfish, or sculpin, had also been managed by the PFMC.

[516] This material was largely derived from Appendix F [to the Nearshore Fisheries Management Plan]: Chronology of State and Federal Regulations Affecting the Nearshore Fishery, available at http://www.dfg.ca.gov/mrd/nfmp/pdfs/appendix_f.pdf.

[517] Fish & Game Code § 316.

[518] *Id.* See 16 U.S.C. § 1361.

[519] Pub.L. No. 100-711, 102 Stat. 4755 (1988).

In June of 1992, the United States entered into the La Jolla Agreement[520], a non-binding international agreement setting forth programs to protect dolphins from harm in the Eastern Tropical Pacific, and allowing the practice of purse seine fishing with dolphin mortality caps. Six months later, Congress enacted the International Dolphin Conservation Act of 1992 ("IDCA"), which again amended the Marine Mammal Protection Act by (a) imposing a five-year moratorium upon the harvesting of tuna with purse seine nets; and (b) lifting tuna embargos upon those nations making a declared commitment to implement the moratorium and taking further steps to reduce dolphin mortality.

The La Jolla Agreement led to the signing of the Panama Declaration,[521] under which the United States and eleven other nations made affirmative commitments to strengthen the protection of dolphins.[522] The Panama Declaration also sought to negotiate a new binding agreement to establish the International Dolphin Conservation Program. In 1997 Congress enacted the International Dolphin Conservation Program Act ("IDCPA") to give effect to the Panama Declaration and amended the MMPA yet again, revising the criteria for banning imports. In 2000, NOAA promulgated its interim final rule regarding the harvest and importation of tuna which removed prior bans on importation of tuna and allowed U.S. fishermen to use certain gear in the eastern tropical pacific.[523] The harvest and marketing of tuna thus involves a variety of international and national fisheries and consumer laws affecting how this fishery is managed. Other examples, such as the swordfish fishery could provide similar examples.[524]

7.7 Wildlife Management

7.7.1 Introduction

The California Department of Fish and Game and the Fish and Game Commission are the principle regulators and managers of state wildlife.[525] State policy encourages these entities to preserve, conserve, and maintain wildlife resources under state jurisdiction to accomplish the following goals: maintain sufficient populations of all species of wildlife and habitat; provide for beneficial public use and enjoyment of wildlife; perpetuate all species of wildlife for their intrinsic and ecological values; provide for aesthetic, educational, and non-appropriative uses of wildlife; maintain diversified recreational uses of wildlife; provide for economic contributions to state citizens; and alleviate economic losses or public health or safety problems caused by wildlife to the public.[526]

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[520] The document is reproduced at Christopher. Hedley, *The Internet Guide to International Fisheries Law* at: http://www.oceanlaw.net/texts/lajolla.htm.
[521] The document is reproduced at Christopher. Hedley, *The Internet Guide to International Fisheries Law*, at: www.oceanlaw.net/texts/panama.htm.
[522] See Annex I to the Declaration.
[523] 60 Fed. Reg.30-01, amending 15 CFR Part 902 & 50 CFR Part 216.
[524] See *supra* note 1 and, for example. *Turtle Island Restoration Network v. National Marine Fisheries Service*, 340 F.3d 969 (9th Cir. 2003) (discussing regulation of California fishermen displaced by Hawaii Fishery Management Plan).
[525] Fish & Game Code § 200, § 703(a), § 1802.
[526] Fish & Game Code §§ 1801-1802.

California regulates the taking and possession of fish, mammals, and other specified animals from coastal habitat, or the waters of the state,[527] and manages ocean and coastal living resources in accordance with this policy.

7.7.2 Wildlife Management Laws

California's wildlife laws regulate various human activities, including hunting and fishing, which affect fish, mammals, and other marine life. In general, it is illegal to take or possess fish, mammals, and other marine life from state waters or the coast without a permit, license, or other entitlement, and as provided by California law.[528] Various provisions in the Fish and Game Code define the conditions under which the public may lawfully take, possess, or transport birds, fish, and other wildlife.[529] The following section presents an overview of state management with regard to dead wildlife, wild animals, and nuisance species.

Dead Wildlife

The State regulates the import, transport, sale and possession of dead wild birds, fish, mammals, amphibia, and parts thereof. The Fish and Game Code specifies legal requirements for importing and transporting specified dead wildlife. Among other things, the Code directs shipment procedures and methods, and the quantity of dead fish, and other wildlife that may be lawfully transported by common, or other, carriers.[530] The Code places additional restrictions on the import of certain types of fish and wildlife, such as barracuda and yellowtail, into California.[531] The Code also makes it unlawful to import into the state for commercial purposes, to possess with intent to sell, or to sell within the state, the dead body, or part or product of a dead body, of certain animals, including whales, sea turtles, sea otters, and dolphins or porpoises.[532]

Wild Animals

The State regulates the import, transport, possession and release alive of wild animals, to avoid harm to the animals themselves, damage to the environment and agricultural interests of the state, and threats to human health and safety.[533] Under the Fish and Game Code, a "wild animal" includes mammals, amphibians, reptiles, lampreys, crustaceans, fish, and gastropods,[534] all of which may occur in ocean and coastal habitat. The Fish and Game Commission promulgates regulations that govern the entry, transport, keeping, confinement, and release, and possession of wild animals,[535] in cooperation with the State

[527] Fish & Game Code § 200; *see also* Fish & Game Code §§ 2000, *et seq.*
[528] Fish & Game Code §§ 2000 *et seq*.
[529] Fish & Game Code §§ 2000 *et seq*; *see also* Fish & Game Code §§ 2345-2371.
[530] Fish & Game Code §§ 2345-2371.
[531] Fish & Game Code § 2362.
[532] PC § 653(o), PC § 653 (r).
[533] Fish & Game Code §§ 2116, *et seq*.
[534] Fish & Game Code § 2116.
[535] Fish & Game Code § 2120.

Department of Food and Agriculture, and designates which wild animals may be possessed without a permit.

State law prohibits the import of live non-native wild animals into California,[536] to prevent the introduction of undesirable species to bodies of water and habitat where they do not already exist, and to help prevent the dissemination of disease and parasites to wild populations. It is also illegal to import, transport, possess, or release alive, a subset of wild animals[537] including: lampreys (all species), crocodiles (all species), crayfish (all species from three genera), and many species of fish, unless otherwise allowed by the fish and game laws. The Department of Fish and Game may issue permits to import, possess or transport these restricted wild animals within the state under specified conditions.[538] The Commission may revoke the permit if it finds that the permitee has failed to fulfill permit requirements. Certain entities (i.e. zoos, university and government research agencies) are generally exempt from permit requirements unless the importation, transportation, or possession of the animal will be detrimental or cause damage to agriculture, native wildlife, or the public health and safety.[539] Even where permitted, the import, transport, and receipt of certain wild animals, such as diseased or infected animals, may subject to a number of additional conditions and constraints.[540]

7.7.3 Nuisance and Invasive Species

State law provides for the management of wildlife to prevent establishment of nuisance species within the coastal waters of the state, and alleviate economic losses, and threats to human health, welfare, or property. To achieve these ends, the state regulates the importation of certain live aquatic species,[541] and requires the Department of Fish and Game to give prior approval for the import of these species into the state.[542] The law expressly prohibits the importation of certain aquatic species into the state, such as those that may be parasitized or diseased,[543] and authorizes the Department of Fish and Game to destroy, regulate and control such species within the state.[544]

In recent years, the state has been actively managing the prevention of invasive marine species in state waters. In 2003, the Legislature passed the Marine Invasive Species Act.[545] The Act requires vessel in excess of 300 tons to do a mid-ocean exchange of all

[536] Fish & Game Code § 2189.
[537] Fish & Game Code § 2118.
[538] Fish & Game Code §§ 2150-2155.
[539] Fish & Game Code § 2150.
[540] Fish & Game Code §§ 2185-2186.
[541] Fish & Game Code § 2271.
[542] Fish & Game Code § 2271.
[543] Fish & Game Code § 2270.
[544] Fish & Game Code §§ 6300-6306. The Department of Fish and Game heavily regulates noxious aquatic species of the genus Caulerpa to prevent the potential introduction and establishment of this salt water alga in California coastal waters. Caulerpa spp. have been known to severely and rapidly impact coastal ecosystems, and threaten native flora and fauna, after release or escape from salt water aquaria in the Mediterranean and elsewhere. The Fish and Game Code therefore prohibits the importation, transport, live release, or sale of Caulerpa in the state, and prescribes civil penalties for violations of the law.
[545] AB 433 (Nation), codified at Pub. Res. Code §§ 71200, *et seq.*

ballast water and associated sediments, for health and safety.[546] For ships moving between Pacific Coast states and arriving at a California port, the ship must perform a near-coast exchange of ballast water or retain all ballast water.[547] The Act imposes reporting requirements on the master, owner, operator, or person in charge of specified vessels to retain, and make available to the State Lands Commission, additional information, including a separate ballast water log to outline ballast water management activities for each ballast water tank on board the vessel. Finally, the act imposes a vessel fee at the first port of call in California.[548]

7.8 Endangered Species and Marine Mammals

The federal Submerged Lands Act of 1953 gives California plenary authority to manage marine living resources in state waters to three nautical miles offshore.[549] Two important exceptions to this rule are found in the Marine Mammal Protection Act and the federal Endangered Species Act. Provisions in these acts allow the federal government to pre-empt state authority to protect marine mammals and endangered species in state waters.[550] The following section addresses the management of these resources in state waters.

7.8.1 Endangered Species

Federal protection of endangered and threatened species

The Endangered Species Act (ESA) provides broad federal protection for endangered and threatened species of fish, wildlife, and plants, and for conserving the ecosystems on which these species depend.[551] The U.S. Fish and Wildlife Service and the Department of the Interior have primary authority for carrying out the requirements of the ESA.

The ESA delineates the federal program for protecting endangered and threatened species. A species is endangered if it is "in danger of extinction" throughout all or a significant portion of its range.[552] A species is threatened if it is "likely to become endangered" within the foreseeable future.[553] Federal procedures for listing and de-listing these species are given in §4 of the ESA, and its implementing regulations.[554] The ESA also describes procedures for designating the critical habitat for listed species,[555] and for developing recovery plans for those species. Finally, the Act outlines procedures for federal agencies to follow when taking actions that may jeopardize listed species, and

[546] Pub. Res. Code § 71204.2.
[547] Pub. Res. Code § 71024.3.
[548] Pub. Res. Code § 71215.
[549] 43 U.S.C. §§ 1301 *et seq*.
[550] 16 U.S.C. § 1535(f).
[551] 16 U.S.C. §§ 1531-1544.
[552] 16 U.S.C. § 1532(6).
[553] 16 U.S.C. § 1532(20).
[554] See 16 U.S.C. § 1533, and 50 C.F.R. Part 424.
[555] 16 U.S.C. § 1533(a)(3).

contains exceptions and exemptions. The official list of endangered and threatened species receiving federal protection under the ESA may be found at http://www.fws.gov/r9endspp/vertdata.html.

State Protection of Endangered and Threatened Species

Overview—The California Endangered Species Act (CESA) of 1984 delineates procedures for the management of endangered and threatened species found in the marine waters and coastal habitat of the state.[556] This statute provides more stringent requirements for the protection of endangered and threatened species than the federal Endangered Species Act (ESA), which expressly preempts states from imposing less restrictive laws and regulations for the protection of these species.[557] The primary managers of threatened and endangered fish, wildlife, and plants in California are the Fish and Game Commission, and the Department of Fish and Game.[558] In accordance with state law requirements, these departments maintain an official list of species listed as endangered or threatened species under the ESA and CESA.[559] Notably, the ESA and CESA have different lists of protected species.

Like the federal law, CESA provides broad protection for fish, wildlife, and plants that are officially listed as "endangered" or "threatened" species. CESA defines an endangered species as one that "is in serious danger of extinction" throughout all or a significant portion of its range.[560] CESA defines a threatened species as one that one that is likely to become endangered in the foreseeable future in the absence of protective measures.[561] The state legislature has identified factors that may contribute to endangered status, including impacts to the species' habitat or range, overexploitation by humans, predation, competition, and disease.[562]

Listing—Interested parties may petition the Fish and Game Commission to add, delete, or change the status of a species, subspecies, or variety of plant or animal from the State's lists of rare, threatened or endangered species, in accordance with procedures set forth in state law.[563] The procedures governing the submission and review of these petitions are discussed in detail in the Fish and Game Code and implementing regulations, as well as on the Department's website.[564] In brief, the Commission refers petitions that it receives to the Department of Fish and Game for an evaluation and recommendation regarding the petitioned action.[565] If the Commission rejects the petition, it will publish a notice of finding to that effect in the California Regulatory Notice Register.[566] If the Commission

[556] Fish & Game Code §§ 2050-2116.
[557] 16 U.S.C. § 1535(f)
[558] *See* Fish & Game Code 2081.
[559] Fish & Game Code § 2070; 14 Cal. Code Regs. 670.5.
[560] Fish & Game Code § 2062.
[561] Fish & Game Code § 2067.
[562] Fish & Game Code § 2062.
[563] Fish & Game Code §§ 2070-2079.
[564] Fish & Game Code §§ 2070-2079; Title 14 Cal. Code Regs. 670.5.
[565] Fish & Game Code §§ 2073-2073.5.
[566] Fish & Game Code § 2074.2(1).

decides that listing may be warranted, the Department has one year to conduct a species status review, and to decide whether to reject the petitioned action or to list the species as endangered or threatened.[567] If the agency finds that listing is not warranted, its decision is subject to judicial review.[568] If the agency decides to list the species, it must follow the informal "notice-and-comment" rulemaking procedures of the Administrative Procedure Act (APA).[569] The decision to list is made solely on biological grounds, and without consideration of economic or other factors.[570]

Critical Habitat—CESA declares that State policy prohibits the implementation of projects that would result in the destruction or adverse modification of habitat that is essential to the continued existence of a species, if there are reasonable and prudent alternatives to that action that would prevent jeopardy.[571]

Prohibited Actions—If a species has been listed, California law prohibits persons from interacting with those species in specified ways. Prohibited actions include importing into the state, exporting from the state, or taking, purchasing, possessing, or selling within the state, any endangered or threatened species, or part thereof, with certain exceptions.[572] Under CESA, the definition of "take" means to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."[573] This definition is less expansive than the federal definition of "take," as defined by 50 CFR §17.3 which includes both direct physical harm to a species (as in CESA) and indirectly harming or harassing.[574]

The Department of Fish and Game may issue a permit for an "incidental take" of listed species that are incidental to an otherwise lawful activity.[575] The Department may issue an incidental take permit only if the take will be minimized and fully mitigated, and if issuance of the permit will not jeopardize the continued existence of the species, among other requirements.[576] The accidental take of candidate, endangered, or threatened species during routine and ongoing agricultural activities are generally not prohibited.

7.9 Marine Mammals

7.9.1 Overview of Federal Laws

The Marine Mammal Protection Act of 1972 vests the Department of Commerce (NMFS) with federal responsibility for the conservation of marine cetaceans and pinnipeds, other

[567] Fish & Game Code § 2075.5.
[568] Fish & Game Code § 2076.
[569] Fish & Game Code § 2075.5.
[570] Fish & Game Code §§ 2070, 2072.3
[571] Fish & Game Code § 2053.
[572] Fish & Game Code §§ 2080 *et seq*.
[573] Fish & Game Code § 86.
[574] See *Babbitt v. Sweet Home Chapter of Communities for a Greater Oregon*, 515 U.S. 687 (1995) (upholding the definition of "take" to include "harm or harass").
[575] Fish & Game Code § 2081(b).
[576] Fish & Game Code § 2081.

than walrus, but including whales, dolphins, porpoises, seals and sea lions.[577] The U.S. Department of the Interior has management authority over all other marine mammals, including polar bears, walruses, sea otters, manatees, and dugongs.[578]

The Act imposes a moratorium on the taking and importation of marine mammals, and marine mammal products, subject to limited exceptions.[579] The Act defines "taking" as harassing, hunting, capturing, killing, or attempting to do so, and may include unintentional capture or harassment. [580] Section 1371 of the MMPA allows the Secretary of Commerce to issue permits for taking and importation for scientific research, public display, conservation efforts, certain photographic uses, and taking marine mammals incidental to commercial fishing operations.

Amendments to the MMPA adopted by Congress in 1994 put in place a new regime that governs the incidental taking of marine mammals in commercial fisheries.[581] The goal of the new regime is to reduce serious injury and mortality of marine mammals to insignificant levels approaching zero. The regime divides fisheries into 3 categories. Category I and II fisheries are those with frequent or occasional interaction with marine mammals. Category III fisheries are those which are highly unlikely to marine mammals incidental to their operations. Vessels operating within Category I and II fisheries must register with NMFS, and may be required to carry a fishery observer on board, in addition to other requirements. The management of marine mammals by California is preempted by the MMPA unless the Secretary transfers authority to the State.[582]

7.9.2 Overview of State Law

Consistent with the federal framework, California law prohibits the taking of marine mammals (defined as sea otters, whales, dolphins, porpoises, seals, and sea lions) unless the take accords with federal law.[583] California law also prohibits the taking or possession of certain marine mammals that are fully protected by California law, such as Northern elephant seal and Southern sea otters, subject to certain exceptions.[584] Other provisions make it unlawful to possess with intent to sell, or to sell, within the state any marine mammal where the import of that animal is unlawful under the MMPA.[585] State law additionally recognizes the state's interest in managing marine mammals in state waters, finding that "[a]t such time as federal laws or regulations permit the state to assume jurisdiction over marine mammals, the commission may adopt regulations governing marine mammals and the taking thereof."[586]

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[577] 16 U.S.C. §§ 1362(12)(A)(i).
[578] 16 U.S.C. §§ 1362(12)(A)(ii).
[579] 16 U.S.C. § 1371.
[580] 16 U.S.C. § 1362(13).
[581] PL 103-238 §11, 108 Stat 532 (1994) amending 16 U.S.C. 1371 *et seq.*
[582] 16 U.S.C. § 1379.
[583] Fish & Game Code § 4500.
[584] Fish & Game Code § 4700.
[585] Penal Code § 653(p).
[586] Fish & Game Code § 4500(b).

In 1996, NMFS established a Take Reduction Team, composed of various constituents, to reduce bycatch of marine mammals, such as pilot and sperm whales, in the thresher shark/swordfish drift gillnet fishery off California. The Team developed a take reduction plan addressing this incidental take. In October 1997, NMS issued regulations for implementing the Plan and requiring that fishermen use new technology (i.e. pingers, acoustic deterrent devices), limit fleet expansion, and lower the depth of their nets in the water column, in order to reduce the whale capture in these nets.

In the 2006 session, the California Legislature passed legislation specific to funding research on sea otter mortality, non-point source pollution, water and wastewater treatment technologies for pathogens or other causes affecting sea otter mortality.[587] The act requires any cat litter offered for sale in the state to contain one of 2 alternative statements regarding the proper disposal of cat feces.[588]

7.10 Habitats

Numerous state laws include provisions for the protection, preservation, management, and/or restoration of ocean and coastal habitat. The California Coastal Act protects the California coastline through a coastal use planning and regulatory program.[589] The California Endangered Species Act (CESA) protects habitat that is essential to the continued existence of endangered and threatened species.[590] The Marine Life Protection Act (MLPA) mandates a network of marine protected areas in state waters that will protect key segments of marine life, and their habitat.[591] An array of laws also establish, classify, and manage, ocean and coastal state managed areas, which may be used as key habitat by a variety of wildlife during various life stages.[592]

These laws, and others, are administered by an array of state agencies that include the California Coastal Commission, the San Francisco Bay Conservation and Development Commission, the Department of Parks and Recreation, the Department of Fish and Game, and the Department of Water Resources. While these agencies fulfill various habitat protection roles in California, the California Coastal Conservancy and other the other state conservancies within the State are uniquely charged with facilitating non-regulatory approaches to coastal habitat protection, acquisition, and enhancement..[593] A discussion of these Conservancies is provided in Chapter 3.

7.10.1 Salmon and Steelhead Trout Habitat

[587] Stats. 2006, Chap. 296, *codified at* Rev. & Tax Code § 18751.
[588] Fish & Game Code § 4501.
[589] Pub. Res. Code §§ 30000, *et seq*.
[590] Fish & Game Code §§ 2050-2116; and see discussion supra.
[591] Fish & Game Code §§ 2850-2863.
[592] Enabling statutes of the Department of Parks and Recreation, Department of Fish and Game, the Wildlife Conservation Board, the State Lands Commission, the State Coastal Conservancy, and the Department of Transportation all provide for management in these areas.
[593] See Pub. Res. Code §§ 31100-31120.

Federal and tribal regulation of salmon and steelhead in California waters are largely regulated under the Magnuson-Stevens Fishery Conservation and Management Act.[594] The Pacific Fishery Management Council has developed a Pacific Coast Salmon Fishery Management Plan to manage west coast stocks of coho, chinook, and Puget Sound Pink Salmon. In 1999, due to declines in salmon returns, the plan was amended to identify essential fish habitat extending from the nearshore and tidal submerged environments within state territorial waters out to the full extent of the exclusive economic zone (200 miles) offshore of Washington, Oregon, and California north of Point Conception. Under the designation, federal agencies are required to consult with the National Marine Fisheries Service on activities that may adversely affect essential fish habitat.[595] Federal management is further complicated by tribal reserved fishing rights[596] and the federal governments trust responsibilities to tribal interests.[597]

California has established initiatives to protect salmon and steelhead habitat to help reverse the decline of these valuable resources, and reduce reliance on hatchery production of these fish. The Salmon, Steelhead Trout, and Anadromous Fisheries Program Act declares the State's policy that existing natural salmon and steelhead trout habitat must not to be diminished without mitigating the impacts of the lost habitat.[598] The Act, further, encourages public participation in privately and publicly funded mitigation, restoration, and enhancement programs in order to protect and increase the natural production of these resources, and establishes a program to achieve these policies.[599] Other provisions require the State Lands Commission to inventory state-owned tide and submerged lands, and to determine ownership of all salmon and steelhead spawning areas. All salmon and steelhead spawning areas that are determined to be state property are to be permanently protected by the state, with only a few limited exceptions.[600]

Funding for salmon and steelhead trout habitat protection projects may be obtained through a variety of sources. The Fish and Wildlife Habitat Enhancement Act of 1984 authorizes the expenditure of funds for the acquisition, development, restoration, protection, or enhancement of fish and wildlife habitat to improve the conservation and management of fish and wildlife resources.[601] The Keene-Nielsen Fisheries Restoration Act of 1985 provides funding for fishery restoration and maintenance projects.[602] Other provisions, additionally, establish mitigation and enhancement funds to abate the effects of specific projects and for protecting, conserving, restoring, enhancing, managing, and

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[594] 16 U.S.C. 1802, *et seq.*
[595] http://www.psmfc.org/efh/salmon_efh.html.
[596] The Ninth Circuit has specifically recognized the Hoopa Valley tribe's reserved fishing rights in *Parravano v. Babbitt*,, 70 F.3d 539, 546 (9th Cir. 1995) *cert. denied*, 518 U.S. 1016 (1996).
[597] See Generally, Matthew McHenry, *The Worst Of Times: A Tale Of Two Fishes In The Klamath Basin*, 33 ENV. L.J. 1019, 1036-42 (2003); Anne M. Hartridge, *Salmon Medicine: Federal Trust, The ESA, And The Trinity River*, 23 ENVIRONS ENVTL. L. & POL'Y J. 107 (1999).
[598] Fish & Game Code § 6902.
[599] Fish & Game Code §§ 6920-6924.
[600] Pub. Res. Code § 6378, and Fish & Game Code § 1505.
[601] Fish & Game Code §§ 2600-2651.
[602] Fish & Game Code §§ 2760-2765.

maintaining fish, wildlife, native plants, or their habitats.[603] The habitat-related aspects of these three laws are detailed in other chapters, and are not discussed in greater detail here.

7.10.2 Artificial Reefs

Since 1958, the Department of Fish and Game's Nearshore Sport fish Habitat Enhancement Program, has overseen the monitoring and development of artificial reefs and kelp forests off the coast. Artificial reefs are defined as "manmade or natural objects intentionally placed in….the marine environment to…induce production of fish and invertebrates on natural reefs and rough bottoms, and that stimulate the growth of kelp or other midwater plant life which creates natural habitat for those species.[604] Funding for the program may come from Fish and Game Preservation Fund, the California Environmental License Plate Fund, the Wildlife Restoration Fund, recreational bond act funds, federal grants-in-aid, county fish and game propagation funds, and private donations.[605] In addition to Fish & Game Code provision, the creation of new artificial reefs requires a coastal development permit with the California Coastal Commission.[606] And reefs constructed on state-owned submerged lands would also require Commission approval.[607]

One subset of artificial reefs has caused significant controversy both nationally and locally. The conversion of spent oil rig platforms to artificial reefs has garnered significant national, international and state-wide attention.[608] The National Fishing Enhancement Act of 1984 specifically provides for the regulation of the placement of artificial reefs in order to facilitate recreational and commercial fishing, minimize conflicts for competing uses of the water column, minimize environmental and navigational risks and comply with international norms concerning navigational hazards[609] More recently, the Energy Policy Act of 2005, discussed in Chapter 8, includes a provision authorizing alternate uses of existing structures and facilities previously permitted on the OCS for energy-related uses.[610] However, these uses must be done in consultation with the Governor of any that may be affected.[611] On the state

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[603] Fish & Game Code § 13014.
[604] Fish & Game Code § 6421(a).
[605] Fish & Game Code § 6425.
[606] See *Marine Forests Soc. v. California Coastal Com'n*, (2005) 36 Cal.4th 1, 30 Cal.Rptr.3d 30, (upholding the constitutionality of Coastal Commission in an action to issue cease and desist order for construction of artificial reef).
[607] See Pub. Res. Code § 6321 *et seq*.
[608] See Rachael E. Salcido, *Enduring Optimism: Examining the Rig-to-Reef Bargain*, 32 ECOLOGY L. Q. 863 (2005); Michael Vincent McGinnis, Linda Fernandez, Caroline Pomeroy. The Politics, Economics, and Ecology of Decommissioning Offshore Oil and Gas Structures. MMS OCS Study 2001-006, available at http://www.coastalresearchcenter.ucsb.edu/cmi/files/2001-006.pdf.
[609] 33 U.S.C. 2101.
[610] Pub. L. No. 109-58, § 388(a), 119 Stat. 594, 744-47 (2005) (codified at 43 U.S.C. § 1337(p))
[611] 43 U.S.C. § 1337(p)(7).

level, California legislation to authorize the use of abandoned oil rigs as artificial reefs has been routinely rejected.[612]

7.11 Hatcheries and Rearing Facilities

The Department of Fish and Game operates 13 trout hatcheries and eight salmon and steelhead hatcheries in California. Hatcheries and rearing facilities produce anadromous fish for commercial and recreational use. Hatchery-based stocking programs also help compensate for lost fish production resulting from the construction of dams, and other installations. A study by the Department of Fish and Game reports that hatchery raised fish contribute heavily to anadromous fish harvest in the state, with state and federal hatcheries providing over half of the harvest and escapement of California Chinook salmon in some years.[613]

The Fish and Game Code governs the establishment, operation, and maintenance of state, county, and private nonprofit hatcheries, and cooperative salmon and steelhead rearing facilities.[614]

State fish hatcheries: The Fish and Game Commission is authorized to lease real property, and establish, State fish hatcheries, to be administered by the Department of Fish and Game.[615] The DFG is further authorized to purchase and import fish spawn or ova suitable for food, and to stock the waters of the state with those fish.[616] Fishing is prohibited on those public lands and waters used as fish hatcheries, and subject to State regulation.[617]

County fish hatcheries: County boards of supervisors are authorized to establish and maintain County fish hatcheries, and to purchase the spawn or ova of fish.[618]

Private nonprofit hatcheries: The Commission may issue a permit to nonprofit organizations to construct and operate an anadromous fish hatchery, subject to permitting restrictions and regulations.[619] These non-profit hatcheries are generally encouraged under the Steelhead Trout, and Anadromous Fisheries Program Act.[620] The State may not issue a permit that would deplete the natural runs of anadromous fish, or result in waste or deterioration of fish.[621]

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[612] *See, e.g.,* S.B. 1, 2001-2002 Sess. (Cal. 2000) (vetoed by Governor Gray Davis, Oct. 13, 2001). For a discussion of past attempts to pass rigs-to-reef legislation. For more information see McGinnis et al, supra, note 174 and Rachel E. Salcido, *supra*, note 608.
[613] Final Report on Anadromous Salmonid Fish Hatcheries in California, California Department of Fish and Game & National Marine Fisheries Service Southwest Region, Joint Hatchery Review Committee. December 3, 2001, available at http://www.dfg.ca.gov/lands/finalcommitteereportmain.pdf.
[614] Fish & Game Code §§ 1120-1206.
[615] Fish & Game Code § 1120.
[616] Fish & Game Code § 1123.
[617] California Constitution, Art. 1 § 26.
[618] Fish & Game Code § 1150.
[619] Fish & Game Code §§ 1170-1175.
[620] Fish & Game Code § 6903.5.
[621] Fish & Game Code § 1172.

Cooperative salmon and steelhead rearing facilities: The DFG is authorized to enter into agreements with various entities for the management and operations of salmon and steelhead rearing facilities for the purpose of providing additional fishing resources and to augment natural runs.[622]

7.12 Aquaculture

7.12.1 Introduction

Aquaculture is the practice of propagating, cultivating, maintaining, and harvesting aquatic plants and animals in marine, brackish, and freshwater[623] for a variety of purposes including food, stocking, and bait. California's aquaculture industry produces a diverse assortment of marine and freshwater food fish, and marine shellfish. Common freshwater products include a variety of fish species, such as catfish, tilapia, trout, and juvenile salmon. Marine products include, among others, shellfish, such as oysters, abalone, mussels, clams, and scallops, algae, halibut, and seabass. This section focuses on the regulations governing marine aquaculture projects, which differ from those applied to inland production of freshwater species.

State laws and regulations that authorize, permit, and control marine aquaculture are complex, and involve several state agencies associated with various aspects of coastal activities. These agencies include the California Department of Fish and Game, the California Coastal Commission, the San Francisco Bay Conservation and Development Commission, California Environmental Protection Agency, and the Department of Health Services. The responsibilities of these entities range from permitting coastal development to water quality protection. In addition, some forms of aquaculture are banned. In 2003, California passed SB 245 banning aquaculture of salmon, exotic (non-native) and transgenic (genetically engineered) fish in state waters, including the ocean from 0 to 3 miles offshore.[624]

7.12.2 State Policy

The California Aquaculture Development Act sets state policy for development of the State's aquaculture industry.[625] The State encourages aquaculture development to augment food supplies, expand employment, promote economic activity, increase native fish stocks, enhance commercial and recreational fishing, and protect and better use the state's land and water resources. The Act establishes a policy and program aimed at improving the science and practice of aquaculture as a means of expanding aquaculture industry and related economic activity in the state.[626]

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[622] Fish & Game Code §§ 1200-1206.
[623] Fish & Game Code § 17.
[624] Fish & Game Code § 15007.
[625] Pub. Res. Code §§ 825-830.
[626] Pub. Res. Code § 827.

7.12.3 Regulation of Aquaculture

Since aquaculture is classified by legislation as an agricultural activity, it is regulated under the same statutes and benefits offered to the agricultural industry. Because aquaculture is designated as an agricultural industry, it must comply with certain sections of the Food and Agriculture Code. At the same time, the nature of aquaculture results in its crossing into the regulatory purview of many other agencies.

In general, the Fish and Game Commission regulates commercial aquaculture in California.[627] Every proposed commercial aquaculture project in California must register with the Department of Fish and Game,[628] and obtain approval and permits from the Department. The Department makes a determination regarding the species to be grown, and facility design. The Commission may also regulate the transportation, purchase, placement, possession, and sale of specific aquaculture products to protect native wildlife from harmful or noxious species.[629] If the proposed species raises concerns relating to issues including the introduction of invasive species, escapement, and disease, the DFG will identify additional operating conditions and permits that must be addressed prior to final project approval.[630]

The Sustainable Ocean Act, passed in 2006, prohibits a person from engaging in marine finfish aquaculture in state waters without a lease from the Fish and Game Commission.[631] The Act also requires financial assurances of each lessee to ensure that restoration is performed. The act mandates preparation of a final programmatic environmental impact report (EIR) to provide a framework for managing marine finfish aquaculture in a sustainable manner. The Department of Fish and Game, in cooperation with the Ocean Protection Council is currently undertaking a programmatic EIR to evaluate current aquaculture best management practices.

The State Department of Health Services (DHS) has authority regarding the cultivation of bivalve mollusks (mussels, oysters, clams, scallops) for human consumption.[632] The DHS is responsible for ensuring that shellfish are grown in waters meeting a standard of cleanliness and for approving handling, packaging, and quality standards of the product. To this end, the DHS examines area where shellfish may be taken and may regulate the take of shellfish from areas subject to sewage contamination, as prescribed by law.

Prior to the issuance of any permit, the responsible agency must consider potential environmental consequences of activities to be conducted under the requested permit, under the California Environmental Quality Act (CEQA). In the Programmatic EIR to be developed under the Sustainable Oceans Act, DFG will assess the individualized impacts

[627] Fish & Game Code §§ 15000 *et seq.*
[628] Fish & Game Code §§ 15100-15105.
[629] Fish & Game Code §§ 15100 *et seq.*
[630] Fish & Game Code §§ 15200-15202.
[631] Stats. 2006, chap. 36.
[632] Fish & Game Code §§ 5669-5675.

of proposed finfish aquaculture to determine significant environmental impacts and outlined in the act.

CHAPTER 8: CALIFORNIA'S MINERAL AND ENERGY RESOURCES

Photo: Channel Islands National Marine Sanctuary

8.1 Introduction

By most yardsticks, California has significant off shore resources. A 2005 Report on the economic contribution of the ocean to California's economy concludes, "California was the third largest manufacturer of petroleum products with the value of shipments just under $26 billion per year as of 2000."[633] The gross value of this resource in 2001, when crude oil prices were averaged at $28/barrel, was $1,401,053,623. These figures do not include revenues from natural gas production (estimated at $277 million in 2001) and sand, gravel and minerals mining for which no figures are currently available.

Chapter 1 discusses California's offshore boundaries in detail. In summary, California owns the seabed for a distance of 3 miles from the coastline or seaward limit of inland waters, whichever is greater. Within this zone, the states are free to lease or sell tracts into private ownership. However, the federal government retains the power to regulate commerce, navigation, power generation, national defense, and international affairs throughout state waters.[634] Within this area, states have the authority to manage, develop, and lease resources throughout the water column, on, and under the seafloor.[635] The State has title to submerged lands. California had claimed ownership of submerged lands

[633] National Ocean Economics Program, CALIFORNIA'S OCEAN ECONOMY 48 (2005), *citing* 2001 Annual Report of the State Oil and Gas Supervisor, California Department of Conservation, Division of Oil, Gas, and Geothermal Resources.

[634] 43 U.S.C. § 1314(a), which provides that all federal powers shall be paramount to, but shall not be deemed to include, proprietary rights of ownership, or the rights of management, administration, leasing, use, and development of the lands and natural resources which are specifically recognized, confirmed, established, and vested in and assigned to the respective states and others by 43 U.S.C. § 1311.

[635] Richard Breedeen, *Federalism and the Development of Outer Continental Shelf Mineral Resources*, 21 STANFORD L.R.1107, 1111-12 (1976).

since independence from Mexico. The California Constitution of 1849 recited the state's boundaries as including islands, harbors, and bays, with a seaward boundary of "three English miles."[636] Statutory enactments subsequent to statehood such as the Civil Code of 1872 declared California the owner of submerged lands seaward of the tidelands.[637] Pursuant to these and other assertions of sovereignty, California regulated offshore activities such as fishing, kelp harvesting, and eventually petroleum drilling which began off southern California in 1896.[638]

8.2 Administration and Control of Submerged Lands

Prior to 1921, leasing rights were acquired from private coastal landowners.[639] In 1921, California enacted the Mineral Exploration and Leasing Act, which established state jurisdiction to lease offshore lands. As a result of U.S Supreme Court litigation and subsequent Congressional passage of the Submerged Lands Act, submerged land three nautical miles from the coast and its resources belong to the individual states. These areas are waters of the state and, *viz a vis* the federal government, are referred to as the marginal or territorial sea.[640] Some areas outside the marginal sea are also considered state waters. For example, the Channel Islands present a special case as California courts have considered an area three miles surrounding these offshore islands as part of the State.[641] However, the coast is generally not extended by artificial structures such as piers and artificial islands off the coast.[642]

Beyond the state's ownership, the federal government exercises control under the Outer Continental Shelf Lands Act.[643] The OCSLA authorizes the Secretary of Interior to lease federal offshore lands for mineral exploration, development and production with some coastal state involvement. OCSLA allows the federal Bureau of Land Management within the Department of Interior to lease these lands for offshore oil and gas development, with post-lease exploration and development managed by the U.S.

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[636] Cal. Const. XII (app) (1849), available at http://www.ss.ca.gov/archives/level3_const1849txt.html ; *United States v. California*, 332 U.S. 19, 29-30 (1947). See Staff of Senate Comm. on Commerce, 93 Cong., 2d Sess., Outer Continental Shelf Oil and Gas Leasing off Southern California: Analysis of Issues 10 (Comm. Print 1974).
[637] *Id*.
[638] *U.S. v. California*, *supra* n.636.

[639] Dr. Edward Fitzgerald, *The Tidelands Controversy Revisited*, ENVIRONMENTAL LAW 209, 212-13 & n.13. (Winter 1988).
[640] See *U.S. v. Maine*, 469 U.S. 504, 105 S. Ct. 992 (1985). The reader is cautioned that the use of the term "territorial sea" in the domestic context refers to state waters, which in California extend three nautical miles, where as term in international parlance refers to a 12-mile margin which is subject to sovereign control See *supra* section **1.2.4 The Territorial Sea (0** to 12 Nautical Miles).
[641] *In re Application of Marincovich*, (1920) 48 Cal. App. 474 (upholding conviction for illegal possession of fishing nets offshore of Santa Catalina Island; holding that the State has jurisdiction over the territorial waters within three miles of shore and encircling the island, and that the State has the power of control over fisheries within these waters).
[642] *U.S. v. California*, 447 U.S. 1, 7, 100 S.Ct. 1994, 1998 (1980).
[643] 42 U.S.C. §1331, *et seq.*

Minerals Management Service.[644] Amendments to the Coastal Zone Management Act in 1976 and amendments to the OCSLA in 1978 strengthened the state's role permitting oil and gas leasing on the outer continental shelf. As discussed in Chapter 5, Section 307(c) of the Coastal Zone Management Action requires outer continental shelf exploration plans or development and production plans be consistent with the state's federally-approved coastal management plan. The OCSLA also requires the Department of Interior to develop five-year leasing plans with coastal states and local governments. The Secretary of Interior must perform environmental review of the leasing plan and submit the plan for public review and comment.

In addition to the California Constitution, several statutes also delineate state ownership of submerged lands. Government Code § 670 provides that the State is the owner of all land below tide water, and below ordinary high-water mark, bordering upon tide water within the State; of all land below the water of a navigable lake or stream; of all property lawfully appropriated by it to its own use; of all property dedicated to the State. Unless otherwise specifically provided, private owners adjacent to tidelands take to the ordinary high water mark.[645]

The State Lands Commission is primarily responsible for leasing, administrating, and regulating all ungranted tidelands and submerged lands owned by the state.[646] The Commission may act on behalf of the state pursuant to the Outer Continental Shelf Lands Act[647] to regulate the deposit, removal, or extraction of material from specified state waters, the construction or alteration of structures on or near tide or submerged lands, beach erosion, and salvage operations and to establish the ordinary high-water mark and the ordinary low water mark of specified waters.

The public has asserted ownership over all oil, gas, oil shale, coal, phosphate, sodium, gold, silver, and all other mineral deposits in public lands belonging to the state.[648] Similarly, the state has withdrawn from private sale or disposal all submerged lands.[649] Public Resources Code § 6216 authorizes the State Lands Commission to administer and may, sell, lease, or dispose of the public lands owned by the state or under its control, including tidelands and submerged lands subject to the public trust doctrine and statutory restrictions on the management and disposal of these lands For example, the California Coastal Sanctuary Act of 1994 withholds from sale or lease all state waters subject to tidal flow, except those are areas subject to a lease for the extraction of oil or gas in effect on January 1, 1995.[650]

Federal offshore leasing moratoria began with the 1982 Interior Appropriations Act, which prohibited new leases off the shore of California.[651] This initial moratorium lead to

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[644] See http://www.coastal.ca.gov/energy/ocs99.pdf for a thorough discussion of this issue as of 1999.
[645] Gov't Code §830.
[646] Pub. Res. Code §6301.
[647] 43 U.S.C. §§ 1331, *et seq*. & 43 U.S.C §§ 1801, *et seq.*
[648] Pub. Res. Code §§ 6401, *et seq*.
[649] .Pub. Res. Code §7991.
[650] Pub. Res. Code §§ 6342, et seq.
[651] P.L. 97-100.

expanded moratoria in New England, the Georges Bank, the mid-Atlantic, the Pacific Northwest, Alaska, and a portion of the Eastern Gulf of Mexico. Because of environmental and economic concerns, Congress for the past two decades has supported annual moratoria on leasing and drilling in the OCS. [652] Congress enacted the moratoria for each of fiscal years 1982-2006 through the annual Interior Appropriations bill. [653] In addition, various executive orders have extended the moratorium on new leasing activities. In 1990, President George H.W. Bush declared a moratorium on most of the areas of the OCS. President Clinton extended the temporary moratorium, to 2012.[654]

8.3 Oil, Gas, and Mineral Resources

8.3.1 Federal Management

The possibility of oil and gas production in offshore areas covered by the moratoria has sparked sharp debate in Congress. The Energy Policy Act of 2005 required the Department of Interior (Minerals Management Service) to reinventory offshore oil and gas resources.[655] The report estimated oil reserves across the nation; by far the bulk of oil (82%) and natural gas reserves, (95%) were in the Gulf of Mexico Region. The report suggests that the introduction of new geologic models and play concepts coupled with modern technology could make Central and Northern California candidates for additional exploration of reserves.[656]

8.3.2 State Management

The State Land Commission manages oil, gas and mineral deposits on state-owned tidelands. However, the situation is complicated by the legislative grant to local jurisdictions of regulatory authority and revenue sharing for these resources, subject to the public trusts and limitations and reservations specified in the grant. This complexity is compounded by the relatively complex network of regulatory authority at the state and federal level for oil exploration, regulation and response to oil spill and other waste discharges. Section 6817 of the Public Resources Code provides detailed apportionment of revenue from mineral rights derived from tide and submerged lands granted by the state to local jurisdictions. In addition, several uncodified acts of the legislature provide for the apportionment and use of proceeds from the granted tidelands.[657] How the proceeds are used and retained by the state and local jurisdictions was the subject of recent litigation between the State and the City of Long Beach. There the court found the

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[652] Marc Humphries, *Outer Continental Shelf: Debate over Oil and Gas Leasing and Revenue Sharing*, at CRS-5 (Congressional Research Service, updated April 7 2006).
[653] *Id*.
[654] See 43 U.S.C. 1311 (reserving management authority to coastal states).
[655] P.L.109-58, § 357.
[656] Minerals Management Serv., Report to Congress: Comprehensive Inventory of U.S. OCS Oil and Natural Gas Resources (updated May 1, 2006).
[657] See e.g., Stats. 1911, ch. 676, p. 1304; Stats. 1951, ch. 915, § 1, pp. 2444-2445; Statutes 1965, First Extraordinary Session 1964, chapter 138 (all relating to the grant of tidelands fronting the city of Long Beach).

grant to the City of Long Beach allowed the city to create and maintain an oil abandonment reserve to cover costs of oil well remediation.[658]

The State Lands Commission maintains detailed records of current and former leasing activities offshore. A recent summary of these activities shows a steady decline in the number of leases remaining and the total production of these offshore leases.[659]

8.3.3 State Lands Authority.

Public Resources Code Division 6, Part II, Chapter 3, Article 1 contains a variety of provisions authorizing the State Lands Commission to regulate mineral extraction activities on all state owned lands. Public Resources Code §§ 6815 through 6817 provide for a number methods for the State Lands Commission to authorize, sell, trade or conserve submerged oil and gas minerals beneath state lands. Section 6818 requires Department of Parks and Recreation as well as Attorney General approval for the construction of permanent structures on state tidelands. Section 6819 authorizes the State Lands Commission to promulgate rules and regulations to require a person who extracts oil, gas, or other mineral from lands under the Commission's jurisdiction to remove beach and other underwater objects. State Lands Commission regulations require the lessee to return the property "in good order and condition, or… remove such structures, fixtures and other things as have been put on the lease by the lessee, all removal costs to be borne by the lessee**…."**[660]

Article 2 of this Chapter of the Code is specific to oil and gas extraction activities, Public Resources Code §6829 outlines conditions for the issuance of leases for conducting on tide and submerged lands. The article also contains specific provisions on taking core samples, prospecting, spacing and access restrictions, bid rules, lease terms and awards.[661]

Article 4 of Chapter 3 provides additional specific provisions on oil and gas leases on tide and submerged lands. Lease tracts may be no larger that 5,760 acres in size[662] though the Commission may adjust lease boundary where justified by environmental and economic considerations**.**[663] The State Lands Commission has exclusive authority to issue leases on all tidelands and submerged lands[664] and provides specific restrictions on leases in the

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[658] *State v. City of Long Beach*, (2005). 125 Cal.App.4th 767, 23 Cal.Rptr.3d 126.
[659] Adapted from http://www.slc.ca.gov/Reports/CalifOffshoreOil/LeaseStatus.xls.
[660] 2 Cal. Code Regs. 2124. Many offshore leases in Southern California are managed by local jurisdictions that have been granted tidelands. Some of the leases with the local jurisdictions do not require the lessees to plug and abandon wells and remove production facilities that remain after termination of the contracts.
[660] *State v. City of Long Beach*, *supra*, 125 Cal.App.4th 774. The costs of plugging and abandoning these can be significant.
[661] See Pub. Resources Code § 6826, *et seq.*
[662] Pub. Res. Code § 6871.4.
[663] Pub. Res. Code. § 6872.5
[664] Pub. Res. Code § 6871.3.

Santa Barbara Channel.[665] Consistent with the Coastal Sanctuary Act, the Commission may authorize additional extraction activities or the use slant drilling from on-shore. Finally, provisions for the form and content of submerged land leases and environmental review documents are specified.[666] Other requirements for oil and gas leasing are provided in other sections of this chapter as well.[667]

8.3.4 The California Sanctuary Act of 1994

In 1994, California took legislative steps to protect the offshore area from oil and gas leasing through the California Sanctuary Act. The Act prohibits all state agencies from entering into new leases of state tidelands for oil and gas development, with some exceptions.[668] The Sanctuary area includes all state waters subject to tidal influence, but excluding lands already under lease for oil and gas extraction on January 1, 1995, and lands situated east of the Carquinez Bridges on Interstate 80.[669] Oil and gas leases in 1995 revert to the State then become part of the California Coastal Sanctuary.

The Sanctuary Act provides two other exceptions to the leasing prohibition. If the U.S. President declares there to be a severe energy shortage and has ordered distribution of the Strategic Petroleum Reserve or if the Governor finds that the energy resources of the sanctuary will contribute significantly to the alleviation of that interruption, and the Legislature subsequently acts to amend the sanctuary, new leases can be let within this area. Second, if the State Lands Commission determines that oil and gas deposits contained in these tidelands are being drained by means of wells situated on adjacent federal lands (for example through slant drilling) and leasing of the tidelands for oil or gas production is in the best interest of the State leasing, then the Commission may let new leases.

The State Lands Commission may adjust the boundaries of existing oil and gas leases to encompass all of a field partially contained within the existing lease subject to specific conditions.[670] The Sanctuary Act does not affect the authority of the State Lands Commission to provide necessary ingress, egress, or access to pipeline facilities and other utilities by the lease of rights-of-way or other means.

8.3.5 The California Coastal Act

The California Coastal Commission has permit authority over offshore development in state waters under the California Coastal Act of 1976. Article 3, Section 7 contains specific policies that address oil and gas development. All oil and gas facilities must comply with the overarching policy of this section that coastal-dependent industrial facilities are encouraged to locate or expand within existing facilities. New facilities are

[665] Pub. Res. Code §§ 6870, 6873.2.
[666] Pub. Res. Code § 6873.
[667] *See, e.g,*. Pub. Res. Code §3205.1 (requiring a blanket indemnity bond of $250,000).
[668] Pub. Res. Code §§ 6240, *et. seq.*
[669] *Id*. § 6242.
[670] (Pub. Res. Code § 6872.5.

permitted only if alternate sites are infeasible, the new sites do not adversely affect the public welfare; and adverse environmental effects are mitigated to the maximum extent feasible.[671]

Public Resources Code §30262 sets detailed standards for oil and gas development. Facilities must use existing sites or consolidate where feasible; hazards to vessel traffic, subsurface subsidence and visual impacts are to be avoided. All oil produced offshore California must be transported onshore by pipeline only utilizing the best achievable technology.[672] Drilling operations must initiate monitoring programs to record land surface and near-shore ocean floor movements where new large-scale fluid extraction operations are undertaken.[673] Abandoned wells must use the best achievable technology for abandonment in order to maximize the protection of marine habitat and environmental quality.[674] Leasing operations in federal waters are also subject to review for consistency with the Coastal Act. This doctrine is discussed in more detail in Chapter 5.5.2 The Federal Consistency Requirement, above.

8.3.6 Coastal Resources and Energy Assistance Act

The California Resources and Energy Assistance Act provides financial assistance to coastal counties and coastal cities, to be used for the purposes of planning, assessment, mitigation, permitting, monitoring, enforcement, public services, and facilities, and other activities related to offshore energy development.[675] The act allows state funds and federal monies collected under the Outer Continental Shelf Lands Act to provide financial assistance to coastal counties and coastal activities with approved local coastal programs, to help them effectively exercise their responsibility for improving the management of the state's coastal resources.[676]

8.3.7 Local Agencies

Local government bodies are authorized to lease public lands held in trust by them for oil, mineral, gas or other development.[677] However, the section grants review authority to the State Lands Commission for leases on submerged and tidelands and outlines restrictions for drilling off coast.[678]

8.4 Renewable and Thermal Energy from Ocean Resources

8.4.1 Introduction

[671] Pub. Res. Code § 30260.
[672] *Id* (7).
[673] *Id*. (9)(b).
[674] *Id*.(8).
[675] Pub. Res. Code §§35000, *et seq.*
[676] Pub. Res. Code § 35033.
[677] Pub. Res. Code. §7051, et seq.
[678] Pub. Res. Code § 7054.5.

Varieties of renewable energies are available from ocean energy systems. Wave energy, ocean thermal energy and tidal currents energy are all currently under research and develop as sources of energy. In addition, most coastal power plants use seawater to cool and condense steam used in the generation process. Tidal power takes advantage of the gravitational pull of the moon and harnesses energy from the difference between high and low tides of 16 feet or more. A dam or barrage across a bay or estuary forces water through turbines that turn a generator and produce electricity.[679]

Wave power extracts energy directly from surface waves or pressure fluctuations below the surface.[680] All of the current technologies use mechanical power to activate a generator directly, to transfer energy to a working fluid, or air to drive a turbine/generator. Wave power densities in California coast waters are sufficient to produce between 7 and 17 MW per mile of coastline.[681] A 2005 staff report by the California Energy Commission suggested a total potential generating capacity (nameplate capacity) of wave energy resources at 7460 MW.[682] This figure carries a host of assumptions as most wave energy technologies have not yet developed a proven record of accomplishment. In addition, cost and performance uncertainties currently discourage large-scale investments.

Ocean thermal energy conversion (OTEC) uses the temperature difference between the warmer top layer of the ocean and the colder deep ocean water.[683] All OTEC facilities require that a costly large diameter intake pipe be submerged a mile or more into the ocean, in order to bring the colder water to the surface.

8.4.2 Governing Statute

The Warren-Alquist Energy Resources Conservation and Development Act[684] provides for the regulation, evaluation and assistance in the development of renewable energy. The act provides for the collection of a renewable energy public goods charge, to be used for programs designed to foster the development of new in-state renewable electricity generation facilities, including ocean technologies.[685] The goal is to establish a competitive, self-sustaining renewable energy supply for California while increasing the near-term quantity of renewable energy generated in-state

In addition to renewable energy, the Warren-Alquist Act regulates the siting of thermal power plants of 50 MW or greater. The act provides for coordination with the Coastal Commission on power plants within the Coastal Zone.[686] The Act prohibits specified

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[679] California Energy Commission, RENEWABLE RESOURCES DEVELOPMENT REPORT at 26 (2003), available at http://energy.ca.gov/reports/2003-11-24_500-03-080F.PDF.
[680] *Id*.
[681] *Id*.
[682] Mike Kane, CALIFORNIA SMALL HYDROPOWER AND OCEAN WAVE ENERGY RESOURCES at 14 (2005), available at http://energy.ca.gov/2005publications/CEC-500-2005-074/CEC-500-2005-074.PDF.
[683] CEC, RENEWABLE RESOURCES DEVELOPMENT REPORT at 27.
[684] Pub. Res. Code §§25400, *et seq*.
[685] Pub. Res. Code, §25740, *et seq.*
[686] Pub. Res. Code § 25507.

areas, including certain estuaries, from being approved as a site for an electric transmission line or thermal power plant, or both, unless the State Energy Resources conservation and Development Commission makes a specified finding.[687] When a facility is proposed to be located in the coastal zone, the act requires the commission to require, as a condition of facility certification, that an area be established for public use, as specified.[688] As part of the site certification process, the Energy Commission evaluates the use of once-through cooling technologies by coastal plants.[689]

8.4.3 Geothermal Energy

The State Lands Commission retains authority for permit and leasing activities on tide and submerged lands. The Commission provides for permits and leases for exploration and development of geothermal resources on lands belonging to the state. The Commission has reserved to the state permit authority on tidelands, submerged lands, swamp and overflowed lands, and beds of navigable rivers and lakes, and other lands in which geothermal resources have been reserved to the state.[690]

8.5 Desalination

8.5.1 Introduction

Desalination generally refers methods to remove dissolved salts and other impurities for water. Desalinization is frequently used to refer to the treatment of seawater to provide drinking water, though it can also refer to processes used to treat brackish groundwater, recycled or reclaimed water, agricultural runoff and other sources of water. Desalination can use varying levels of treatment depending upon the uses for which the water is intended and the allowable level of dissolved solids.[691]

Although the practice of desalination is not new, new technologies are constantly being developed. All of the technologies use energy to remove salts to produce a water stream with a low concentration of salt (the product stream) and another with a high concentration of remaining salts (the brine or concentrate). The major desalination methods include reverse osmosis, distillation, electro dialysis and vacuum freezing. The first two methods, reverse osmosis and distillation, represent the majority of plants in California and elsewhere.[692]

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[687] Pub. Res. Code §§ 25527.
[688] Pub. Res. Code § 25529.
[689] For a discussion of this function see e.g., California Energy Commission Executive Director B.B. Blevins' Response to the California State Lands Commission's Proposed Resolution (April 11, 2006), available at http://energy.ca.gov/siting/documents/2006-04-11_BLEVINS_LETTER_TO_SLC.PDF.
[690] Pub. Res. Code § 6904.
[691] California Coastal Commission, SEAWATER DESALINATION AND THE CALIFORNIA COASTAL ACT at 32, available at http://www.coastal.ca.gov/energy/14a-3-2004-desalination.pdf. See also Pacific Institute, DESALINATION—WITH A GRAIN OF SALT (2006), available at http://www.pacinst.org/reports/desalination/desalination_report.pdf.
[692] *See Id*. and references and appendices cited therein.

Seawater desalination in California is currently undergoing major development. According to a recent report by the Pacific Institute, there are currently 21 proposed desalination plants along California's coast, over half of which are larger than any previously built plants in the state.[693] The total capacity of the plants as proposed is approximately 450 MGD, which represent a 70-fold increase over current seawater desalination capacity and potentially could provide six percent of the state's urban water needs.[694] Other methods, including water conservation and management are expected to provide higher contributions to the state's water needs.[695]

8.5.2 Governing Law

The primary governing statutes are the State Water Plan, California Coastal Act (with respect to plant siting) and the Porter-Cologne Water Quality Act (with respect to seawater intake impacts and brackish water discharges). The State Water Plan[696] directs the Department of Water Resources to develop a state water plan for the conservation, development, and utilization of the water resources of the state. The Department is to report on the development of regional and local water projects within each hydrologic region of the state including, but not limited to, regional and local water projects that use technologies for desalting brackish groundwater and ocean water.[697] In a similar vein, Cobey-Porter Saline Water Conversion Law requires the Department of Water Resources to investigate and potentially finance programs in the field of saline water conversion.[698]

The Coastal Commission has provided a rather extensive discussion of application of the California Coastal Act to desalination facilities in its 2004 report on this issue. Rather than recapitulate that discussion, the reader is directed to the source: SEAWATER DESALINATION AND THE CALIFORNIA COASTAL ACT, COASTAL COMMISSION REPORT (2004).[699] That report, as well as the Pacific Institute's report on this topic, provides a summary chart of laws, which may be applicable to desalination plant proposals:[700]

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[693] Pac. Inst., DESALINATION, supra n. 691, at 29-38 & Figure 13.
[694] *Id*. at 29.
[695] See DWR, 2005 Water Plan Update at 14, available at http://www.waterplan.water.ca.gov/docs/cwpu2005/cwphighlights/highlights.pdf
[696] See WC §§10000, et seq.
[697] *Id*. §10004.
[698] Water Code §§ 12948, 12949.
[699] Available at ttp://www.coastal.ca.gov/energy/14a-3-2004-desalination.pdf.
[700] The Pacific Institute has similar, though longer list of affected agencies which take into account plants planned for the S.F. Bay Area This includes additional agencies such as the Office of Historic Preservation, National Marine Sanctuaries, Bay Conservation and Development Commission, the Energy Commission and the California Public Utilities Commission.. See Pacific Institute, DESALINATION, *supra*, n. 691 at 79-80.

TABLE 4: PERMITS/APPROVALS LIKELY REQUIRED FOR A COASTAL DESALINATION FACILITY

AGENCY	PERMIT OR APPROVAL	NOTES
Federal:		
Army Corps of Engineers	• Section 404 permit • Section 10 permit	• To place fill in navigable waters. • To place a structure in navigable waters.
Coast Guard	Consultation with Corps	
National Marine Fisheries Service	Endangered Species Act, Section 7 consultation	For federal permits that may affect endangered species.
National Oceanic and Atmospheric Administration	Permits and/or consultation	For projects in national marine sanctuaries.
U.S. Fish & Wildlife Service	Endangered Species Act, Section 7 consultation	For federal permits that may affect endangered species.
State:		
Coastal Commission	• Coastal Development Permit • Consistency with Coastal Zone Management Program	• For projects affecting coastal waters. • For projects requiring federal permits and approvals.
Department of Fish & Game	• Stream Alteration Agreement • California Endangered Species Act	
Department of Health Services	• State Safe Drinking Water Act • Federal Surface Water Treatment Rule	
Department of Parks & Recreation	Approval for facilities within or near state parks	
Department of Transportation	Encroachment permit	For utilities crossing state highways.
Department of Water Resources	Approval for use of state water conveyance facilities.	
Public Utilities Commission	Regulates water services, rates, and service areas.	
State Lands Commission	Land Use Lease	
State Water Resources Control Board / Regional Water Quality Control Boards	• Water quality certification • NPDES permit	
Local & Regional:		
City or County / Local utilities / Water Management Districts	These will vary by local jurisdiction and may include building permits, health department certifications, operating permits, or other types of approvals.	

As indicated in the chart, the State and Regional Water Quality Control Boards will require review of these facilities under the Porter-Cologne Water Quality Act. Intake and discharge facilities will likely require water quality certification under section 401 of the

Clean Water Act.[701] This section requires State Water Board certification for any activity that may result in a discharge into navigable waters of the state. In issuing the certification, the State Water Board certifies that the project will comply with the Clean Water Act, including state standards that developed under the act and in satisfaction of section 303 of the Clean Water Act.[702] The State Water Board may impose effluent limitations and other standards to ensure compliance with state water quality standards.[703] The California Ocean Plan, State Water Board Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California provide relevant standards, as discussed in Chapter 9.[704] In addition, the Water Board will require an NPDES permit for intake and discharge structures. All point source discharges of pollutants into waters of the United States must be regulated under National Pollutant Discharge Elimination System (NPDES) permits.[705] California, through the State Water Resources Control Board issues these permits. The permits must require compliance with technology-based effluent limitations and any more stringent limitations necessary to meet water quality standards.[706]

8.5.3 Legislative and Executive Department Study of Desalination Facilities.

A number of statutes require various state agencies to study and/or plan for desalination and report to the legislature. As required by statute, the Department of Water Resources has submitted a report to the legislature on desalination in 2003.[707] Amendments to the Cobey-Porter Saline Water Conversion Law require a report to the legislature by July 1, 2004.[708] A draft of that report is available online.[709]

Similarly, chapter 648, Statutes of 2004, requires the Public Utilities Commission to evaluate the interrelationship between its electricity policy and water policy as it relates to saline water conversion through ocean desalination and to report to the Governor and the Legislature by January 1, 2006. The PUC published its Report On the Interrelationship between Electricity and Water Policies As It Relates To Saline Water Conversion through Seawater Desalination and the Balance between Electricity and Water Ratepayers in 2005.

The Water Code §10610 and subsequent sections require urban water suppliers to provide urban water management plans which should describe opportunities for development of desalinated water including, but not limited to, ocean water.

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[701] 33 U.S.C. §§ 1341, *et seq.*
[702] 33.U.S.C. §1313.
[703] 33 U.S.C. § 1341(d).
[704] See *Scoping Document: Proposed Statewide Policy on Clean Water Act Section 316(b) Regulations* (relating to power plant certification under 316(b)), available at http://www.waterboards.ca.gov/npdes/docs/cwa316b/316b_scoping.pdf.
[705] 33 U.S.C. §§1311, 1342.
[706] *Id.*
[707] Available at http://www.owue.water.ca.gov/recycle/desal/Docs/Findings-Recommendations.pdf.
[708] Chapt. 957, Statutes of 2002 (AB 2717).
[709] Availabe at http://www.owue.water.ca.gov/recycle/desal/Docs/IAR.pdf.

8.5.4 Fiscal Provisions.

The Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002,[710] authorizes the issuance and sale of bonds in the amount of $3,440,000,000, for purposes related to water security, clean drinking water, and coastal and beach protection. The act makes available fifty million dollars of bond funds for desalination where 50% of the project costs are met by the grantee.[711] Later enacted Assembly Bill 2717 authorized expenditures on the study and development of desalination from the Bosco-Keene renewable resources investment fund.[712]

[710] Water Code § 79500, *et seq.*
[711] Water Code § 79545.
[712] *Supra* note 708.

CHAPTER 9: OCEAN AND COASTAL POLLUTION

Photo: Coastwalk

9.1 Introduction

Water quality is a significant determinant of ocean and coastal health and productivity. State and federal water quality protection programs that require coordinated approaches to water quality management have generally improved water quality in California.[713] For regulatory purposes, marine water quality is affected by two types of pollution, the difference between the two being determined by the source of input into the marine environment. *Point source pollution* enters into the aquatic environment from a specific facility, such as a pipeline outfall system, and can be generated from a variety of industrial and municipal facilities, including vessels, sewage treatment plants, storm water outfalls, oil refineries, or power plants.[714] *Non-point source pollution, or polluted runoff*, is any source that is not a point source and includes disaggregated runoff from a variety of land uses such as agricultural, forestry, or mineral operations.[715] Ocean dredge disposal, beach contamination, and garbage disposal which also contribute to deteriorating marine water quality are discussed in later sections of this overview.

9.2 Point Source Pollution Controls

9.2.1 Federal Requirements

[713] According to the Congressional Research Services "[the Clean Water Act] has been viewed as one of the Nation's most successful environmental laws in terms of achieving the statutory goals, which have been widely supported by interest groups and the public," Claudia Copland, *Clean Water: Summary of HR 961, As Passed* (Updated 1995).
[714] *See* 33 U.S.C. § 1362(14). See also Cal. Water Code § 13373 (adopting the federal definition).
[715] *See Environmental Defense Center, Inc. v. U.S. E.P.A.*, 344 F.3d 832, 841 n.8 (9th Cir. 2003).

In 1972, the Congress enacted the Federal Water Pollution Control Act (now known as the Clean Water Act or CWA)[716] which established the National Pollutant Discharge Elimination System (NPDES), a permitting process to regulate point source discharges of pollutants to navigable waters of the United States. The U.S. Environmental Protection Agency issues NPDES permits in federal waters and has delegated authority to the State Water Resources Control Board (State Water Board or SWRCB) to issue these permits in State waters.

Permits are issued for discharges from sources such as offshore oil and gas platforms, publicly owned treatment works, refineries, and storm water discharges. For example, the USEPA issues permits for all oil and gas platforms located in the federal Outer Continental Shelf. U.S. EPA Region 9 has issued a general permit for oil and gas platforms located in federal waters offshore California in December 2004;[717] the other nine platforms are covered by individual NPDES permits. All NPDES permits for discharges in the federal Outer Continental Shelf also require a determination by the California Coastal Commission that the activity is consistent with California's Coastal Management Program.[718]

9.2.2 State Requirements

The primary state law protecting the quality of State waters is the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) which the State of California passed in 1969 to conserve, control, and utilize the water resources of California and to protect the quality of all waters of California.[719] Under the Porter-Cologne Act, the State of California designated the State Water Board as the State water pollution control agency for all purposes stated in the CWA. A system of nine Regional Water Quality Control Boards[720] (Regional Water Boards or RWQCBs) are established under the act and were given various responsibilities to assist the SWRCB in completing its mission, including issuing policy statements, developing basin plans, establishing water body impairment lists, and issuing water quality certifications under the CWA.[721] Each Regional Board develops a regional water quality control plan that prescribes discharge limitations within the region.[722] Regional Water Boards issue State waste discharge requirements, discussed below, and require permit dischargers to establish self-monitoring programs for their discharges and submit compliance reports to the regional boards.[723] The regional plans must comply with statewide water control plans adopted by the SWRCB, which are reviewed and approved by U.S. EPA.[724]

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[716] 33 U.S.C. § 1252 *et seq*.
[717] The permit was being reviewed in 2002 and 2004 (http://www.epa.gov/Region9/water/npdes/ocsfactsheetaddendum.pdf.) and was issued in December 2004 http://www.epa.gov/region09/water/npdes/pdf/ocsgeneralpermit904.pdf .
[718] See section 5.5.2.
[719] *See* Water Code, commencing with §§ 13240 and 13260.
[720] http://www.swrcb.ca.gov/regions.html
[721] For the powers and duties of the regional boards, see Water Code § 13220.
[722] Water Code § 13240.
[723] Water Code § 13260.
[724] *See* 33 U.S.C. § 1313 (2000).

The SWRCB has established policies to implement these measures through water quality control plans which include the California Ocean Plan (Ocean Plan), Regional Water Quality Control Plans (Basin Plans), and the Thermal Water Quality Control Plan (Thermal Plan). Both the Ocean and Basin plans identify beneficial uses within the area being addressed and lay out numerical and narrative objectives for waste discharges, as well as implementation procedures for achieving these objectives.

The Ocean Plan

The Ocean Plan was adopted by the state board in 1972 and has been amended as recently as 2005.[725] Under Section 13170.2 of the Water Code, the Plan provides for review standards, bioassay protocols to evaluate the effect of municipal and industrial waste discharges on the marine environment.[726] It establishes standards for the physical, chemical, and bacteriological characteristics of offshore waters. The plan also establishes "beneficial uses of the ocean waters" which include industrial water supply; recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation of rare and endangered species; marine habitat; fish migration; fish spawning; and shellfish harvesting. The plan establishes Areas of Special Biological Significance (ASBS). Waste discharges to an ASBS are generally prohibited. Additionally, waste discharges must be located a sufficient distance from an ASBS to assure maintenance of natural water quality conditions in these areas.[727] The plan is reviewed at least every three years to guarantee that the current standards are adequate and are not allowing degradation to marine species or posing a threat to public health.[728]

Thermal Plan

The State Water Board has adopted water quality control criteria through the State Thermal Plan covering elevated temperature wastes in order to ensure statewide consistency in the implementation of the Porter-Cologne Act.[729] The plan sets out specific thermal criteria for various State waters and requires thermal wastes be discharged a sufficient distance from areas of special biological significance identified in the Ocean Plan to assure the maintenance of natural temperature in these areas.

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[725] Water Code § 13170.2.

[726] The Ocean Plan applies to ocean waters, defined as the: "territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the State could affect the quality of the waters of the State, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters." (SWRCB 1990).

[727] *See* Ocean Plan, *supra*. There are 34 areas designated in Appendix V to the Ocean Plan. All of these areas were identified in 1974 and 1975. *Id.*

[728] Ocean Plan, supra. *See also*, SWRCB Resolution 68-16 *Statement of Policy with Respect to Maintaining High Quality of Water in California (1968*)(commonly called the "Anti-degradation Policy"), *cited in* H. Palmer, *California Marine Water Quality Standards*, California and the World Ocean '02: Revisiting and Revising California's Ocean Agenda 270 (Orville Magoon, *et al.* eds.).

[729] *See* Cal. Water Code § 13170 (granting authority to the State board to develop water standards required by the CWA).

Enclosed Bays and Estuaries Plan

The Water Code, commencing with Section 13390, requires the State Water Board to formulate and adopt the California Enclosed Bays and Estuaries Plan. The statute requires the State and Regional Water Boards to develop and maintain a comprehensive management program to identify and plan for the cleanup of toxic hotspots in the ocean, enclosed bays, and estuaries, and to incorporate strategies to prevent the creation of new, and further pollution of existing, hotspots. The California Coastal Commission is charged with developing a long-term management plan for dredging and disposal of contaminated sediments in the coastal waters adjacent to the County of Los Angeles.[730]

9.2.3 Publicly Owned Treatment Works

Treatment facilities for point source pollution are categorized as primary (physical treatment), advanced primary (physical and some chemical treatment), secondary (physical and biological treatment), and tertiary (additional control measures beyond secondary treatment to remedy specific pollution problems). Over the past 20 years, emphasis on point source pollution control has produced significant improvements in water quality.[731] Dischargers are required to obtain permits specifying requirements to be met, including conditions for discharge, effluent standards, discharge improvement schedules, and self-monitoring activities. The Health and Safety Code also provides for local enforcement against harmful discharges into State waters.[732] The CWA requires municipalities to provide secondary treatment of discharges.

The CWA also provides assistance through a multi-billion dollar State Revolving Loan Program for communities to build municipal wastewater treatment facilities, as well as to address other point source discharges. However, Section 301(h) of the CWA provides for a waiver of the full secondary sewage treatment requirement if certain conditions are met demonstrating equivalent treatment. To receive a Section 301(h) waiver, the USEPA requires a permittee to demonstrate, through stringent monitoring and toxic source control, that no harm results to indigenous organisms near the effluent plume due to the discharge. The NPDES permit requirements place significant controls on discharges in State, federal and international waters. For example, although the cities of San Diego and San Francisco have discharges in federal waters, their discharge permits are subject to California Ocean Plan requirements. Similarly, the International Wastewater Treatment Plant on the U.S. side of the border between California and Mexico is regulated by the NPDES permit process. This facility treats sewage flows that exceed the capacity of the existing Tijuana sewage treatment system. Ocean discharge from the facility began in January 1999.[733]

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[730] Cal. Water Code § 13396.9, amended Stats. 2002, c. 291 § 4. An interim copy of the plan is available at http://www.coastal.ca.gov/sediment/interim.html.
[731] U.S. Ocean Commission Report, at 242.
[732] *See* Health & Safety Code §§ 5410 & 5414.
[733] *See* http://www.swrcb.ca.gov/rwqcb9/programs/iwtp_home.html

9.2.3 Urban Storm Water Permitting Program

Urban storm water consists of runoff from such sources as gas stations, parking lots, highways, golf courses, industrial operations, construction activities, and residential lawns which enters storm drains and is channeled to coastal waters through treatment works or other point sources.[734] California uses two parallel, complementary approaches to address urban runoff from municipalities: the State's Nonpoint Source (NPS) Pollution Control Program, and the U.S. EPA's National Pollutant Discharge Elimination System (NPDES) Storm Water permit program. The State's NPS Pollution Control Program details how the state will promote the implementation of best management practices to control and prevent polluted runoff, as required by Section 319 of the federal Clean Water Act.[735] In lieu of developing a separate non-point source program for the coastal zone, California's NPS Pollution Control Program was updated in 2000 to address the requirements of both the CWA section 319 and the CZARA section 6217 on a statewide basis. The California Coastal Commission, the State Water Resources Control Board, and the nine Regional Water Quality Control Boards are the lead State agencies for upgrading the program, although 20 other State agencies also participate. They developed the Model Urban Runoff Program guide to assist local urban runoff control programs be consistent with the State's NPS implementation plan.[736]

Both the SWRCB and RWQCBs' staffs have determined that storm water runoff is a major problem in large urban centers, like the Santa Monica Bay and San Francisco Bay areas. Similarly, the Congress expressed particular concern about the impacts of urban storm water runoff from industrial and municipal sources. The topic of storm water regulation has recently attracted the attention of the California Legislature. In 1998, it added the Storm Water Enforcement Act[737] to the Water Code. More recently, Section 13383.3 of the Water Code was enacted, requiring the State Water Board to develop minimum storm water monitoring and sampling requirements for specified municipalities and industries. The classification of urban storm water as a point source can be somewhat confusing. Typical examples of point sources are discharges from discrete waste water treatment facilities. Storm water drainage usually emanates from many widely-dispersed sources and is often mistakenly thought of as a non-point source discharge. Under the NPDES storm water program, operators of large, medium and regulated small municipal separate storm sewer systems require authorization to discharge pollutants under an NPDES permit. Medium and large operators are required to submit comprehensive permit applications and are issued individual permits. Regulated small municipal operators have the option of choosing to be covered by an individual permit, a general permit, or a modification of an existing large-scale individual permit.[738]

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[734] For an interesting and detailed discussion of tools to address point (storm water) and non-point source pollution in Southern California, see Robin Kundis Craig, *Urban Runoff And Ocean Water Quality In Southern California: What Tools Does The Clean Water Act Provide?* 9 CHAPMAN L. REV. 313 (2006).
[735] See 33 U.S.C. § 1329.
[736] http://www.coastal.ca.gov/la/docs/murp/chapter1.pdf.
[737] Water Code §§ 13399.25-.43
[738] See http://cfpub1.epa.gov/npdes/stormwater/oilgas.cfm.

The State and regional water quality control boards have adopted EPA's rules[739] and divided permitting into two phases to address larger and smaller municipal storm water systems.[740]

The SWRCB has adopted two general NPDES permits addressing industrial and construction activities, yet establishing standards and means of enforcement for this pollution source presents significant challenges. Efforts to address these impacts include the San Francisco Bay, Morro Bay, and Santa Monica Bay Estuary restoration projects and ongoing efforts by State agencies such as the SWRCB and California Coastal Commission.

9.3 Non-Point Source Pollution

The State Water Board has developed a non-point source (NPS) pollution program under authority of the CWA, the California Coastal Zone Management Act, and the Porter-Cologne Act. The CWA requires the SWRCB to develop and implement an NPS pollution control program and provides funding for this purpose.[741] The Non-Point Source Pollution Program Plan was the State's response to this requirement, as well as to additional federal requirements for the inclusion of management measures consistent with the Coastal Zone Management Guidance Specifying Management Measures for Sources of Nonpoint Source Pollution to Coastal Waters.[742] As described above, the Porter-Cologne Act provides the SWRCB, the Coastal Commission and the Regional Water Boards with the authority and administrative tools to implement the CWA and Coastal Zone Management Act (CZMA) requirements. The Porter-Cologne Act also provides the definition of "waste" that is integral to understanding the Non-Point-Source pollution control authorities and responsibilities. "Waste" is broadly defined to include "any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human

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[739] 22 Calif. Code of Regs. 2235.2.

[740] Under Phase I, which started in 1990, the Regional Water Quality Control Boards have adopted National Pollutant Discharge Elimination System General Permit (NPDES) storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. These permits are reissued as the permits expire. As part of Phase II, the State Water Resources Control Board adopted a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

[741] Clean Water Act, § 319, codified at 33 U.S.C. § 1329. See EPA's website for further details at http://www.epa.gov/owow/nps/cwact.html.

[742] In 1998, the State of California began the implementation of its Fifteen-Year Program Strategy (Strategy) for the Non-point Source Pollution Control Program as delineated in the Plan for California's Nonpoint Source Pollution Control Program (NPS Program Plan). The Strategy described the vision and goals of the NPS Program, including the basic NPS Program process elements of planning, coordination, implementation, monitoring and tracking, and assessment and reporting of NPS Program activities. The NPS Program Plan also divided the fifteen-year Strategy into three, five-year implementation periods, with direction towards achieving the goals and objectives of the NPS Program, culminating in complete management measures implementation by the year 2013. The first five-year implementation plan was developed by the SWRCB, the RWQCBs, and the California Coastal Commission as part of the NPS Program Plan. Source: http://www.swrcb.ca.gov/nps/docs/5yrplan/introduction.pdf.

habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation."[743]

California Water Code Section 13260(a) requires that any person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the State, other than into a community sewer system, shall file with the appropriate Regional Board a report of waste discharge containing such information and data as may be required by the regional water quality control board, unless the board waives such requirement. Pursuant to Section 13269, the regional water board determines whether the discharge should be regulated through waste discharge requirements, or through a waiver of waste discharge requirements. Prior to 2003 regional water quality control boards provided waivers for certain waste discharge requirements resulting from agricultural and other run-off if the grant of a waiver was not against the public interest.[744] With the passage of SB 923, [745] the regional board must find the waiver in the public interest, evaluate monitoring duties and the payment of an annual fee.

Additional non-point source regulatory authority derives from section 6217 of the Coastal Zone Act Reauthorization Amendments. This section charges EPA, NOAA and states with developing non-point source pollution management programs.[746] Section 6217 requires the State to implement management measures that have been identified by the USEPA to address polluted runoff from all sources: agriculture, forestry, urban areas, hydro-modification, and abandoned mines. Technical advisory committees composed of representatives from industry, academia, environmental groups, and State and federal agencies provided critical input to the program review. Coordination for implementation of the plans requires the efforts of 31 State and federal agencies, the 74 coastal local governments, and conservation districts.[747] The Coastal Commission has developed a toolkit for a small municipality to address urban runoff through their Model Urban Runoff Program.[748] The state has also adopted a *Plan for California's Nonpoint Source Pollution Control Program* which outlines a variety of measures to address non-point source pollution within state waters.

Various federal, State, and local agencies, private non-profit groups, and land owners are also involved in other efforts to reduce non-point source pollution. For instance, the San Diego Bay Advisory Committee for Ecological Assessment is charged with evaluating existing and historic data and trends in the overall health of San Diego Bay.[749] The California Bay-Delta Authority seeks to improve the quality and reliability of the State's

[743] Water Code § 13050(d).
[744] See Former Water Code §§ of Section 13260, 13263(a) & 13264 13(a).
[745] Stats. 2003, chap. 801 (S.B.923), § 1. For an interesting discussion of the history of this section, and its relation to San Francisco Bay, see David Cory, Linda Sheehan, &Terry Young, Waste Discharge Requirements: Beyond the Point Source, Hastings L.J. 1281 (June 2006).
[746] Pub. L. No. 101-508, § 6217, 104 Stat. (1990) (codified at 16 U.S.C. § 1455b).
[747] *See* http://www.coastal.ca.gov/nps/prosipv1.pdf, Table 7
[748] See http://www.coastal.ca.gov/la/murp.html.
[749] Water Code § 13368 and § 13368.5.

water supplies and to restore the ecological health of the bay-delta watershed.[750] Projects are also being undertaken in: San Francisco, Morro, and Santa Monica Bays through efforts coordinated by the respective Regional Water Boards and the National Estuary Program; the watersheds draining into the Monterey Bay National Marine Sanctuary through efforts coordinated by the NOAA; and other areas coordinated through local organizations, such as resource conservation districts, State and local conservancies. These efforts range from complex stream and river restoration projects to curb-marking programs which inform the public that storm drains lead to the sea. Information on over 300 watershed projects is available at the National Resource Projects Inventory.[751]

9.4 Other Non-Point Source Provisions

A variety of other statutes regulate the discharge of non-point source pollution into State waters. These include: Health and Safety Code Section 117475 which provides for fines for dumping garbage into the navigable waters of the State; Health and Safety Code Section 5215.2 prohibits the disposal of lead battery acid in marine waters, surface waters, or watercourses; Section 25250.5 of the same code prohibits the disposal of used oil in marine waters, surface waters, groundwater, or watercourses; and Section 114780 of the Health and Safety Code charges the Coastal Commission with the prevention of dumping of radioactive waste in the Pacific Ocean by a public or private entity, unless the Commission finds that the dumping would be consistent with the California Coastal Act. The Water Recycling Act establishes a prescribed statewide water recycling goal and requires Regional Water Boards to establish water quality objectives in water quality control plans, and requires each regional board to consider specified factors in establishing water quality objectives including, but not limited to, reducing discharge of waste into the ocean, and the enhancement of groundwater basins, recreation, fisheries, and wetlands.[752]

9.5 Disposal of Dredged Materials

Authorization to dispose of dredged materials in the ocean, within enclosed coastal waters, or on land, is provided through a variety of federal and State permit processes. Under the authority of the Rivers and Harbors Act,[753] Section 404 of the CWA,[754] and the Marine Protection, Research, and Sanctuaries Act (MPRSA or Ocean Dumping Act),[755] the U.S. Army Corps of Engineers develops controls, maintains, and conserves

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[750] Water Code §§ 79400, *et seq*. The San Francisco Bay and surrounding delta area covers 1,600 square miles, ranging from the salty waters of San Francisco Bay to the brackish waters of the Sacramento-San Joaquin Delta, and contains over 90 percent of the state's remaining coastal wetlands. The upstream watershed drains more than 40 percent of the state's land mass, including the streams from the Sierra Nevada and Coast Ranges. THE BAY INSTITUTE, *S.F. Bay Primer/ S. F. Bay Then and Now* (available at http://www.bay.org/about_the_bay.htm).
[751] http://www.ice.ucdavis.edu/nrpi/
[752] Cal. Water Code §§ 13576 *et seq*.
[753] 33 U.S.C. § 401 *et seq*.
[754] 33 U.S.C. § 1344.
[755] 16 U.S.C. §§ 1431 and 1447, *et seq*. and 33 U.S.C. §§ 1401 & 2801, *et seq*.

the nation's navigable waters and wetlands. The Corps regulates development of any project involving fill, construction, or modification of waters of the United States. For example, pursuant to Section 103 of the MPRSA, the Corps is authorized to permit disposal of dredged material into the ocean if the Corps determines that "the dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environments, ecological systems, or economic potentialities." However, the Corps is prohibited from issuing such a permit if the USEPA finds that the proposal cannot meet its criteria established for disposal site selection pursuant to Section 102 of the Ocean Dumping Act.

Federal permits for dredge disposal cannot be issued unless the SWRCB issues or waives a certification that the proposed activity will not violate State water quality standards. In addition, the SWRCB regulates discharges of dredge materials into State waters by issuing Waste Discharge Requirements through its Porter-Cologne Water Quality Control Act authority. Finally, the Coastal Commission and the San Francisco Bay Conservation and Development Commission have authority over disposal of dredge materials pursuant to the federal consistency provisions of the CZMA.

The majority of dredging and filling operations along the coast occur within California's major port facilities. Similar issues exist with small harbors along the coast. Historically, dredge material has been a valuable source of material for beach nourishment. Many small ports and harbors regularly deposit dredge spoils down coast for this purpose, providing benefits to tourism, recreation, and the safety of down coast properties. California is currently developing a legal overview and guideline as part of the California Coastal Sediment Management Master Plan. The Plan and workgroup represent a collaborative effort between federal, State, and local agencies and non-governmental organizations to evaluate California's coastal sediment management needs on a regional, system-wide basis.

9.6 Water Quality Monitoring, Beach & Shellfish Contamination

Under Section 305(b) of the CWA, states must assess the degree to which State waters meet their designated uses.[756] Under Section 303(d) of the CWA, states must also develop a list of waters that do not meet their designated water quality standards. The CWA requires states to establish priority rankings for waters on their Section 303(d) List and develop action plans, called Total Maximum Daily Loads (TMDL), to improve water quality.[757]

California's State Water Ambient Monitoring Program (SWAMP) provides reports required under sections 305(b) and 303(d) of the CWA. The program assesses the conditions of surface waters throughout the state of California. The program is administered by the State Water Board. Responsibility for implementation of monitoring activities resides with the nine Regional Water Quality Control Boards that have

[756] California's 305(b) List can be found at: http://www.swrcb.ca.gov/tmdl/305b.html.
[757] California's 303(d) List can be found at: http://www.swrcb.ca.gov/tmdl/303d_lists.html.

jurisdiction over their specific geographical areas of the state. Monitoring is conducted in SWAMP through the Department of Fish and Game and U.S. Geological Survey master contracts and local Regional Boards monitoring contracts.

9.6.1 Beach & Shellfish Contamination

Human consumption of harmful fish and shellfish poses a significant potential health risk depending upon on the amount of fish consumed and the type of contamination.[758] Pesticides, harmful algal blooms, and human pathogens require monitoring and evaluation to ensure public health. Varieties of statutes require the Regional Water Boards and departments of health to monitor water and seafood quality. The California Mussel Watch program required the SWRCB, in conjunction with the Department of Fish and Game, to implement a long-term coastal monitoring program to ensure public health and safety.[759] This function has since been taken over by the State Water Ambient Monitoring program. Section 1377.5 of the California Water Code establishes the coastal monitoring and assessment program for sport fish and shellfish. This section requires the Office of Environmental Health Hazard Assessment to issue health advisories when the office determines that consuming certain fish or shellfish presents significant health risk. A wide variety of other studies and programs run by the SWRCB are required by the Water Code.[760]

Shellfish Contamination

Pursuant to the Shellfish Protection Act of 1993,[761] Regional Water Boards may form technical advisory committees to monitor water quality if commercial shellfish growing areas within the board's jurisdiction are threatened by point or non-point source pollution. The technical advisory committees advise and assist the regional board in developing an investigation and remediation strategy. The State Water Board is currently incorporating shellfish growing areas into the State's Ocean Plan.[762]

Beach Contamination

California Health and Safety Code Section 115910 requires local health officers to submit to the State Water Board by the 15th day of each month a survey documenting all beach postings and closures that occurred during the preceding month due to threats to the public health.[763] The law also requires the SWRCB to: (1) make available this information to the public by the 30th of each month; (2) publish a statewide annual report documenting the beach posting and closure data provided by health officers for the preceding calendar year by July 30; and (3) distribute this report to the Governor,

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[758] Office of Environmental Health Assessment. http://www.oehha.ca.gov/fish/special_reports/fishy.html.
[759] *See* Cal. Water Code § 13177.
[760] *See, e.g.* Cal. Water Code, § 13177.6 (relating to Palos Verdes shelf); § 13178 (relating to monitoring storm drains; § 13191 (relating to 303(d) waters).
[761] Water Code §§ 14950, *et. seq.*
[762] Personal Communication with Dominic Gregario, State Water Quality Control Board.
[763] Source http://www.swrcb.ca.gov/beach/report/2002/beachclosure2002.pdf.

Legislature, major media organizations, and public within 30 days of publication of the annual report. The SWRCB publishes the monthly beach posting and closure reports produced from the data provided by the local health officers on its Web site. Coastal Regional Water Boards also post this information on their Web sites or link to the SWRCB's Web site. The California Department of Health Services (DHS) and many of California's coastal counties conduct water quality testing and monitoring of coastal waters. Subsequent decisions to close beaches are based on non-compliance with DHS regulations. County health departments are required to report beach closures to the SWRCB where the data is entered into a centralized data collection system, and an annual beach closure report is prepared for the Legislature. Unfortunately, the State does not have a water quality monitoring program which covers all tributaries, small bays and estuaries, or the entire nearshore waters along the California coast. Therefore, it is difficult to determine comprehensively the health of these water bodies.

9.7 Vessel Pollution

Ocean disposal of garbage and other marine debris is distinguished from the discharge of wastes from a pipe or shore. Ocean disposal is defined by the London Dumping Convention (1975) as the "deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms, or manmade structures." According to the Marine Board of the National Research Council, the amount and precise characteristics of garbage thrown overboard from vessels is unknown. Vessel discards into the marine environment are difficult to identify due to the presence of domestic and industrial sewer discharges, and the littering of coastal waters by land-generated wastes left on beaches or transported to the ocean via offshore winds, rivers, and coastal runoff. [764] The London Dumping Convention pertains to materials transported to sea for disposal, whereas the International Marine Pollution Convention controls ship-generated waste-streams.

Reducing marine debris resulting from garbage disposal is one of the objectives of the 1978 International Marine Pollution Convention[765] (MARPOL Treaty) and the federal Marine Plastics Pollution Research and Control Act, which specifically targets plastic debris.[766] Plastic debris is especially troublesome as marine species can become entangled in plastic products and frequently mistake the products for food. The federal Act to Prevent Pollution from Ships (APPS) implements MARPOL Annexes I, II, V.[767] The Act covers U.S.-flagged vessels wherever they are located and foreign-flagged vessels within State waters (3 nautical miles) for oil and noxious liquid substances (Annexes I & II) and within the U.S. Exclusive Economic Zone with respect to solid waste/garbage disposed from ships (Annex V). The U.S. is not a party to Annex IV which controls discharge of sewage or Annex VI with respect to air pollution. However, these sources are regulated by State and federal law.

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[764] For a discussion of vessel source pollution see *California's Ocean Resources: An Agenda for the Future* (1997) (available at http://resources.ca.gov/ocean/97Agenda/PDF/).
[765] http://www.imo.org/Conventions/contents.asp?doc_id=678&topic_id=258.
[766] 33 U.S.C. §§ 1901, *et seq*.
[767] 33 U.S.C. §§ 1901-1912.

The U.S. Coast Guard is the federal agency charged with enforcing regulations for trash disposal at sea and requirements for sewage-holding tanks aboard vessels. The Regional Water Boards have regulatory authority in marinas, but limited resources are available for enforcement. State law prohibits the owner or operator of large passenger vessels from releasing sewage sludge into the marine waters of the State or a marine sanctuary if specified circumstances occur; and prohibits the release of oily bilge water in the same manner, without the occurrence of specified circumstances.[768] The law subjects a person who violates either of these prohibitions to a civil penalty, and requires the owner or operator to notify the State Water Board of a release from the vessel of these substances in the marine waters of the State or a marine sanctuary. Departments of Health regulate marine sanitation devices on vessels and vessel pump-out facilities at vessel terminals and other facilities.[769]

Ocean litter and debris is part of the much larger solid waste disposal problem in California.[770] The Health and Safety Code makes it illegal to deposit or load garbage on any vessel, with the intent to dispose of the garbage in the navigable waters of the State, or at any point in the ocean within 20 miles of any point on the coastline.[771] Similarly, Food and Agriculture Code Section 16151 makes it unlawful for a person to throw, discharge, deposit, remove, or carry garbage, from a vessel, aircraft, or other vehicle, into territorial waters or onto land in the State, except as specified.[772]

9.7.1 Ballast Water Control

Ballast water is considered a major source of infection of non-indigenous species into coastal and estuarine waters of California. Typically, ballast water is pumped on board the vessel, and released, during vessel loading and unloading to maintain vessel stability. The California Marine Invasive Species Act reauthorizes and enhances California's ballast water management and control program.[773] It imposes new ballast water management requirements, and other requirements, on vessels operating in the waters of the State, to minimize the uptake and release of non-indigenous species. As an adjunct to enforcement, it requires specified research and reports with respect to the release of non-indigenous species from vessels and imposes civil and criminal penalties for specified violations. The California Clean Coast Act of 2005[774] also imposes restrictions on ocean-going vessels to limit or prevent the discharge of oil bilge water, hazardous wastes and graywater. Similarly, Harbors and Navigation Code § 132 makes the dumping of

[768] Public Res. Code §§ 72400, *et seq*. and Harbor & Nav. Code § 780.
[769] Health & Safety Code § 775.
[770] The Integrated Waste Management Board[770] administers the California Integrated Waste Management Act of 1989 which requires all California cities and counties to reduce their waste stream by 25% no later than 1995 and by 50% no later than the year 2000. Public Res. Code §§ 40000, *et seq*. In addition, the Department of Conservation's Division of Recycling administers the California Beverage Container Recycling and Litter Abatement Act of 1987.
[771] Health and Safety Code § 117510.
[772] *See also* Harbors & Nav. Code § 134 which prohibits dumping of wood products in Humboldt Bay.
[773] Pub. Res. Code §§ 71200, *et seq*.
[774] Creating Chapter 3.3, Division 26 of the Health and Safety Code (commencing with § 39630) and amending Public Resources Code §§ 72400, *et seq.*

ballast from a vessel, or obstruction of navigation, in ports, harbors, or coves, a crime in certain instances.

9.8 Oil Pollution

Several different State laws provide for oil pollution liability and cleanup: the Harbors and Navigation Code, the Water Code, the Oil Transfer and Transportation Emission and Risk Reduction Act of 2002,[775] and the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990.[776] Additionally, the Federal Oil Pollution, Prevention, Response, Liability, and Compensation Act of 1990 (OPA) enacted in the aftermath of the *Exxon Valdez* disaster imposes additional liability and regulation. The following discusses the more significant sections; a comprehensive compendium of the State regulation of marine oil pollution has been developed by the legal staff of the Department of Fish and Game and is available on the web.[777]

9.8.1 Harbors and Navigation Code

The Harbors and Navigation Code (HNC) regulates oil discharges from vessels and offshore facilities to navigable waters of the State. It is unlawful, except under limited circumstances, to discharge oil from a vessel into navigable waters of the State.[778] Except where otherwise authorized, a person who intentionally or negligently causes or permits any oil to be deposited in waters of the State is liable for the reasonable costs incurred, and actual damages suffered, by a government agency in abating or cleaning up the oil deposit as well as being subject to civil penalties.[779] Additionally, the owner or operator of any vessel engaged in the commercial transportation, storage in a vessel, or transfer of petroleum or fuel oil is liable, without regard to fault, for property damage and injury to natural resources caused by the discharge or leakage of such substances into navigable waters of the State.[780] Liability is similarly imposed for the discharge or leaking of natural gas, oil, or drilling waste from offshore wells, facilities, oil rigs, oil platforms, vessels, and pipelines.[781]

9.8.2 Water Code

While the above provisions of the Harbors & Navigation Code are limited to vessels and offshore facilities, the Water Code more broadly applies to oil discharges from any source to waters of the State. A person who causes or permits any oil or residuary product of petroleum to be deposited in any of the waters of the State, except as otherwise authorized, is civilly liable.[782] A person who allows any oil or petroleum

[775] Gov't Code § 8670.40 & Pub. Res. Code §§ 8780, *et seq.*
[776] Codified in the Gov't Code §§ 8670.1–8670.73 and the Public Resources Code Division 7.8 (commencing with § 8700).
[777] http://www.ibrrc.org/pdfs/compend.pdf.
[778] Harbors & Navigation Code § 133.
[779] Harbors & Navigation Code § 151.
[780] Harbors & Navigation Code § 293.
[781] Harbors & Navigation Code § 294.
[782] Water Code § 13350.

product to be discharged to waters of the State or to be deposited where it probably will be discharged to waters of the State must report the spill to the Office of Emergency Services in accordance with the spill reporting provision of the State oil spill contingency plan.[783]

9.8.3 Oil Transfer and Transportation Emission and Risk Reduction Act of 2002

The Oil Transfer and Transportation Emission and Risk Reduction Act of 2002[784] established the California Oil Transfer and Transportation Emission and Risk Reduction (OTTER) program under the direction of the State Lands Commission (SLC). The purpose of the OTTER program is to collect data related to the intra-state or internal shipments of oil by marine vessels between the San Francisco Bay area and the Los Angeles/Long Beach area. To gather the required data, the SLC developed the "Oil Transfer and Transportation Emission and Risk Reduction Form" which must be completed by the owner of the oil or a designated responsible party engaged in the internal shipment of oil and filed with the SLC.[785] The OTTER form requires information regarding: the vessel's responsible party; the type, amount, and source of transported oil; the names and locations of any terminal that loaded or discharged the vessel; the estimated amount and type of air emissions; and whether the reason for the internal shipping of oil was due to a temporary or partial shutdown of a key refinery facility.

9.8.4 Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990

The Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990[786] (the Act) creates a broad and elaborate framework for the prevention, removal, abatement, response, containment, and cleanup of oil spills in marine waters of the State. The Act requires the Governor to establish a State Oil Spill Contingency Plan that provides for an integrated and effective State procedure to combat the results of major oil spills.[787] The plan must include a Marine Oil Spill Contingency Planning Section that provides for the best achievable protection of the coast and marine waters.[788]

Administrator's Responsibilities

The Act establishes an Administrator for Oil Spill Response (administrator) in the Department of Fish and Game.[789] The administrator has primary authority to direct all

[783] Water Code § 13272.
[784] Gov't. Code §8670.40 and Pub. Res. Code §§ 8780 through 8789.
[785] The OTTER Form can be found at: http://www.slc.ca.gov/Division_Pages/MFD/MFD_Programs/OTTER/OTTER.htm.
[786] Codified in the Gov't Code §§ 8670.1–8670.73 and the Public Resources Code Division 7.8 (commencing with § 8700).
[787] Gov't Code §§ 8574.1 and 8574.2.
[788] Gov't Code § 8574.7.
[789] Gov't Code § 8670.4.

aspects of any oil spill response in the marine waters of the State in accordance with the State oil spill contingency plan and with any applicable individual marine facility or vessel contingency plan.[790] The administrator is required to adopt regulations regarding marine safety including regulations regarding marine terminals, tugboat escorts for tank ships, and harbor safety plans.[791] These regulations and the State's oil spill prevention and response programs must be coordinated with applicable federal programs to the maximum extent possible.[792] The Act also requires the administrator to adopt and implement regulations and guidelines for the development of individual oil spill contingency plans for similar vessels, pipelines, terminals, and facilities within a single company or organization, and across companies and organizations.[793]

The Act authorizes the administrator to establish an oil spill prevention and administration fee on crude oil or petroleum products to implement oil spill prevention programs and to respond to imminent oil spill threats.[794] The Act also authorizes the administrator to establish a separate uniform oil spill response fee on petroleum products. Funds from this fee may be expended by State and local government agencies to cover their costs incurred to: (a) respond promptly to, contain, and clean up discharges pursuant to the State and local oil spill contingency plans, the marine response element of the State oil spill contingency plan, or those efforts undertaken at the direction of the administrator; (b) meet requirements relating to wildlife rehabilitation; or (c) make other related miscellaneous payments.[795]

Responsible Parties

Any person who, without regard to intent or negligence, causes or permits any oil to be discharged to the marine waters of the State, must immediately contain, clean up, and remove the oil in the most effective manner which minimizes environmental damage and must do so in accordance with applicable contingency plans.[796] A party responsible for the discharge or threatened discharge of oil in marine waters is also required to report the discharge to the Office of Emergency Services.[797]

Every owner or operator of a marine facility, small marine fueling facility, or mobile transfer unit, prior to operating in the marine waters of the State or where an oil spill could impact marine waters, and every owner or operator of a tank vessel, non-tank vessel, or vessel carrying oil as secondary cargo before operating in the marine waters of the State, must prepare and implement an oil spill contingency plan that has been submitted to and approved by the administrator.[798]

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[790] Gov't Code § 8670.7.
[791] Gov't Code §§ 8670.17, *et seq*.
[792] Gov't Code § 8670.14.
[793] Gov't Code § 8670.28.
[794] Gov't Code § 8670.38, *et seq*.
[795] Gov't Code § 8670.46 *et seq*.
[796] Gov't Code § 8670.25.
[797] Gov't Code § 8670.25.5.
[798] Gov't Code § 8670.29.

Tank vessels, marine terminals, and marine facilities are required to obtain a certificate of financial responsibility issued by the administrator before transporting or transferring oil. Additionally, marine terminals and marine facilities must receive a copy of a vessel's certificate of financial responsibility before transferring oil.[799]

Marine Facilities

The Act contains several provisions specifically related to marine facilities. The Act prohibits a tanker or barge from using any marine facility in the State unless the tanker or barge complies with all applicable federal and State laws and regulations relating to the prevention of oil spills.[800] The Act requires the State Lands Commission to adopt rules, regulations, guidelines, and leasing policies for existing and proposed marine terminals to provide the best achievable protection of public health and safety and the environment,[801] and requires the Commission to inspect all marine facilities on a regular basis.[802] Marine facilities must prepare an operations manual that describes its equipment and procedures to prevent oil spills and protect public health and safety and the environment; the marine facility must submit the operations manual to the Commission for approval.[803]

Liability and Enforcement

Responsible parties are absolutely, jointly and severally liable without regard to fault for any damages incurred by any injured party resulting from the discharge or leaking of oil into or onto marine waters including: response and cleanup costs; damages to property; and destruction of natural resources.[804] The Act provides immunity for persons who act in good faith in the course of rendering care, assistance, or advice in accordance with the National Contingency Plan, the State oil spill contingency plan, or at the direction of the administrator, onsite coordinator, or the Coast Guard in response to a spill or threatened spill of oil.[805]

The Act allows State and local governments to bring enforcement actions for violations including injunctive relief and administrative, civil, and criminal penalties. Under certain circumstances where the government fails to prosecute a violation, private citizens may seek relief in the public interest.[806]

9.8.5 Federal Oil Pollution, Prevention, Response, Liability, and Compensation Act of 1990

Under the Oil Pollution Act (OPA), which expressly does not preempt state law regarding oil spills, owners and operators of vessels and oil facilities that discharge oil are strictly

[799] Gov't Code § 8670.37.51 *et seq*.
[800] Public Res. Code § 8752.
[801] Public Res. Code § 8755.
[802] Public Res. Code § 8757.
[803] Public Res. Code § 8758.
[804] Gov't Code § 8670.56.5.
[805] Gov't Code § 8670.56.6(a).
[806] Gov't Code § 8670.57, *et seq*.

liable for cleanup costs and damages.[807] OPA also created a $1 billion Oil Spill Liability Trust Fund which is to be used to pay for cleanup costs that exceed the federal liability limit of $1,200 per gross ton.[808] OPA requires vessels and oil storage facilities to submit to the federal government plans detailing how they will respond to large discharges; it also requires the development of Area Contingency Plans to prepare and plan for oil spill response on a regional scale. OPA also imposes vessel construction requirements on vessels and comprehensive spill response requirements that are beyond the scope of this inventory.[809]

9.9 Funding for Improved Water Quality and Quantity

Funding to improve water quality has been from a variety of sources. In addition to federal grants though the Coastal Zone Management Section 6217 program and the Clean Water Act, State law has provided a variety of funding sources. Some of the more significant funding sources include the following:

9.9.1 The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006

The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 was recently passed by the voters.[810] The act authorizes $5.388 billion in general obligation bonds to fund safe drinking water, water quality and other water projects; the protection of rivers, lakes, and streams flood control, sustainable communities, state parks, nature and education centers, forest wildlife conservancy and statewide water management planning.

The act authorized bonds in the amount of five hundred and forty million dollars for the protection of beaches, bays, coastal waters, and watersheds, including projects that prevent contamination and degradation of these waters. Projects that protect and restore the natural habitat values of coastal waters and lands, and projects and expenditures to promote access to and enjoyment of the coastal resources of the state are also authorized under this section of the bond act.[811] The act authorizes ninety million to the Ocean Protection Trust fund for uses consistent with that fund. Priority is to be given to projects that develop scientific data needed to adaptively manage the State's marine resources and reserves, including the development of marine habitat maps, the development and implementation of projects to foster sustainable fisheries using loans and grants, and projects to conserve marine wildlife.[812]

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[807] 33 U.S.C. § 2702.
[808] 33 U.S.C. § 2704.
[809] For a discussion of the Act and its legacy, see Lawrence I. Kiern , *Liability, Compensation and Financial Responsibility under the Oil Pollution Act of 1990,* 24 TULANE MARITIME L.J. 481 (2001).
[810] *See* the Secretary of State's website concerning the November 2006 election results at http://vote.ss.ca.gov/Returns/prop/00.htm.
[811] See Chapter 7, creating Pub. Res. Code §§ 75060, *et seq.*
[812] Proposed Pub. Res. Code § 75060(g).

9.9.2 Watershed, Clean Beaches, and Water Quality Act [813]

This act establishes a statutory framework for funding water quality, clean beaches, and watershed protection projects from the proceeds of bonds and other revenue sources and specifies how certain State agencies will coordinate and integrate programs to fund projects. It authorizes grants to public agencies and nonprofit organizations for specified projects related to public beaches, marine managed areas and coastal waters. The State Water Board is required to appoint a Clean Beaches Task Force[814] to review funding proposals and recommend projects for funding consideration. This Act also authorizes projects that restore and protect the water quality and environment of marine managed areas.

9.9.3 California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act

The California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act of 2002[815] (Proposition 40) provides funding for clean beaches, small community wastewater treatment, urban storm water treatment, non-point source pollution control measures, agricultural water quality improvement, drinking water improvement, groundwater monitoring and integrated watershed management. While all of these programs improve coastal water quality, the integrated watershed management planning grants have the potential to comprehensively remedy deteriorating coastal water quality.

9.9.4 Coastal Nonpoint Source Control Subaccount[816]

This section of the Water code establishes the Coastal Non-point Source Subaccount to improve water quality at public beaches, improve monitoring, collecting, and analyzing ambient water quality, improve existing sewer collection systems and implement storm water and runoff pollution reduction and prevention programs.[817] The statute provides funding for specified projects related to addressing these water quality and non-point source pollution issues in coastal areas.

Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002

The Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Proposition 50) authorizes the issuance and sale of bonds in the amount of $3,440,000,000 for purposes related to water security, clean drinking water, and coastal and beach protection, including: protecting coastal watersheds, as specified; acquiring, protecting, and restoring coastal wetlands, upland areas adjacent to wetlands, and coastal

[813] Public Res. Code §§ 30901, *et seq*.
[814] http://www.waterboards.ca.gov/cwphome/beaches/task_force.html.
[815] *See* Public Res. Code § 5096.610.
[816] Water Code §§ 79148, *et seq*.
[817] *Id.* § 79148.8(a).

watershed lands, as specified; developing one or more integrated coastal watershed management plans, as specified; and desalinating ocean or brackish waters.[818]

Environmental License Plate Fund

The vehicle code provides for the purchase of special environmental license plates.[819] Similarly, provisions in the Government code permit a $4 assessment on motor vehicle registration in San Mateo County to address negative impacts of motor vehicles on creeks, streams, bays, and the ocean.[820]

[818] Water Code §§ 79500, *et seq*.
[819] Veh. Code § 5100, *et seq.*
[820] Gov't Code § 65089.12.

CHAPTER 10: MARINE OPERATIONS

Humboldt Harbor: Photo Sheila Semans

10.1 Introduction

The promotion and regulation of marine navigation and transportation is an important component of California's ocean economy. California's seaports and the cargo handling facilities support industrial, retail and agricultural sectors throughout the state and the nation.[821] This chapter provides an overview of environmental and other regulations affecting marine transportation, dredging and the marine insurance industry.

10.2 Federal vs. State Regulation of Marine Operations and the Role of International Law[822]

10.2.1 Federal Preemption

The Commerce Clause of the U.S. Constitution expressly grants Congress the power to regulate interstate and foreign commerce.[823] Similarly, the Supremacy Clause of the Constitution provides that where the federal government has acted in an area delegated to Congress by the Constitution, any state law that conflicts with it is preempted.[824] As a result of these federal concerns, federal maritime regulation generally preempts states from enacting their own laws under their traditional powers to regulate matters that affect public health, safety, and welfare. However, there are a variety of exceptions to this

[821] Judith Kildow & Charles S. Colgen, *California's Ocean Economy 55* (July 2005)
[822] For a more in-depth discussion see the *Report of the U.S. Commission on Ocean Policy, Appendix 6, Chapter 7*, from which this section substantially draws upon.
[823] U.S. Const. art. I, § 8, cl. 3.
[824] U.S. Const. art. VI, cl. 2.

general rule, though a detailed discussion of types of federal preemption is beyond the scope of this overview.[825]

Shipping Regulation

In the area of shipping regulation, which is typically an international enterprise, Congress has sought to avoid conflicts with international laws and to provide for national consistency.[826] Thus, Congress has enacted three statutes regulating the design, construction, manning, equipment, and operation of vessels: the Ports and Waterways Safety Act (PWSA); the Port and Tanker Safety Act (PTSA); and the Oil Pollution Act of 1990 (OPA).[827]

The U.S. Coast Guard is involved in the administration and enforcement of these statutes. For example, the Coast Guard develops recommendations for vessel traffic systems and, consistent with U.S. obligations under international treaties, submits them to the International Maritime Organization (IMO, a United Nations agency) for adoption.

Attempts by states to provide for their own regulation of vessels in state waters have raised court challenges based on the issue of federal preemption. In *Ray v. Atlantic Richfield Co.,* the U.S. Supreme Court upheld requirements imposed by the State of Washington regarding escort tugs for tank vessels because they arose from the peculiarities of local waters that call for special precautionary measures and did not demand a uniform national rule.[828] However, the Court found that the state's pilotage requirement, limitation on tanker size, and tanker design and construction regulations were preempted by Congress' adoption of the PSWA, which required national uniformity. [829] In *INTERTANKO v. Locke*, Washington State again tried to regulate shipping within Puget Sound by requiring tank vessels in state waters to implement certain measures to prevent oil spills.[830] The U.S. Supreme held that the state regulations requiring reporting of marine casualties, training certification, English proficiency, and bridge watch requirements were preempted by the PSWA.[831] The Court's reasons for preemption included the extraterritorial effect of these rules beyond state jurisdiction or local concerns, duplication of federal requirements, potential cumulative requirements among many states, and compromise of the uniformity Congress had intended.[832]

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[825] For a general discussion of these issues, see John Nowak, Ronald Rotunda and J. Nelson Young, CONSTITUTIONAL LAW 292-96 (1985).
[826] *See generally* C. Allen, Federalism in the Era of International Standards: *Federal and State Government Regulation of Merchant Vessels in the United States (Part III*), 30 J. OF MARITIME L. & COMMERCE 85, 96-100 (1999).
[827] PWSA and PTSA now codified at 33 U.S.C. §§ 1221-1232; OPA 90, see Chapter 9 of this overview regarding oil pollution.
[828] 435 U.S. 151 (1978).
[829] *Id*. at 171-72, 179.
[830] 529 U.S. 89 (2000).
[831] *Id*. at 112-116.
[832] *Id*.

In addition to these challenges to ship operations within state waters, a variety of federal laws regulate tariffs and cargo rate setting. The Shipping Act of 1984 as it was amended by the Ocean Shipping Reform Act of 1998[833] protects the shipping industry from state regulation and seeks to create markets in the shipping industry. Discussion of how these laws affect international trade and environmental regulation are beyond the scope of this inventory.[834]

Environmental Regulation

With respect to water quality issues, Congress and the states have taken a cooperative approach. Under cooperative federalism, the federal government establishes a nation-wide floor of environmental protection standards and authorizes states to enact provisions that are more stringent. The U.S. Commission on Ocean Policy, Appendix 6 provides a comprehensive list of major federal environmental laws that affect shipping in U.S. waters. The reader is encouraged to read that summary for additional detail.[835] Both the federal government and states have enforcement authority, although states have generally taken the lead role with federal oversight.

Labor Regulation

Federal law with respect to longshore and harbor workers is a complex area of the law. For example, the federal Longshore and Harbor Workers' Compensation Act governs worker' compensation claim in for maritime workers.[836] Similarly the Shipping Acts of 1916 and 1984 affect the disclosure of collective bargaining agreements to the Maritime Trade Commission.[837]

10.2.2 Role of International Law

The vast majority of vessels that carry imports into U.S. ports are foreign-flagged which means that they are under the primary control of their flag state. The goal of international regulation of marine operations is to ensure freedom of navigation and trade while protecting ocean resources, coasts, and ports from unsafe ships and marine pollution. The United Nations Convention on the Law of the Sea (UNCLOS)[838] establishes the jurisdictional and enforcement responsibilities and limits of various nations, referred to as flag states, port states, and coastal states. While the U.S. has not ratified UNCLOS, it has adopted many of the provisions of the treaty in federal law.[839]

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[833] 46 U.S.C. § 1701 (1999).
[834] See for example the IMO/ILO discussion of ship dismantling and its consequent environmental effects, http://www.imo.org/Environment/mainframe.asp?topic_id=818.
[835] See http://www.oceancommission.gov/documents/full_color_rpt/append_6.pdf.
[836] 33 U.S.C.A. § 901 *et seq.*
[837] See *FMC v. Pacific Maritime Ass'n.*, 435 U.S. 40 (1978).
[838] United Nations Convention on the Law of the Sea, U.N. Doc. A/CONF.62/122, 21 I.L.M. 1261 (done at Montego Bay, Dec. 10, 1982).
[839] Statement by President Ronald Reagan, Convention on the Law of the Sea, 18 Weekly Comp. Pres. Doc. 887 (July 9, 1982). The United States has asserted expanded ocean jurisdiction claims that reflect

Flag State Authority

The nation under whose registry and authority the ship is operating, and whose flag a ship is flying, is known as the flag state. Under UNCLOS, the flag state has primary enforcement responsibility and is required to ensure that vessels flying its flag comply with all applicable international marine safety and environmental laws. Thus, U.S. law applies to U.S. flag ships and the U.S. has the responsibility to enforce applicable wherever U.S.-flagged ships operate.

Port State Authority

The nation that exercises sovereignty over the port that any ship has entered is known as the "port state". Once a commercial vessel voluntarily enters the port or harbor of another state, it becomes subject to the jurisdiction of that state. Under UNCLOS, port states have a duty to detain vessels that do not meet international safety and pollution standards.[840]

Coastal State (National) Authority

A coastal nation exercises sovereignty and jurisdiction over its coastal waters. The ability of a coastal nation to regulate the activities of foreign flag vessels operating off its coast is limited under UNCLOS by the international right of innocent passage. Innocent passage is the right of a foreign vessel to pass through the territorial sea of a coastal state without interference from that nation so long as the passage is not prejudicial to the peace, good order, or security of the coastal state.[841] Under UNCLOS, the coastal nation may not regulate the construction, design, equipment, and manning of foreign vessels in innocent passage but may establish stricter discharge and liability standards under certain circumstances.[842] UNCLOS also authorizes coastal nations to require vessels that carry chemicals, oil, and other dangerous substances to use sea-lanes or other restricted areas during transit for the protection of the coastal nation.[843]

UNCLOS also establishes a coastal nation's authority to enforce environmental laws in the various jurisdictional zones off its coast including the territorial sea, the contiguous zone, and the exclusive economic zone (EEZ). Within its territorial sea, a coastal nation may regulate the preservation of its environment and the prevention, reduction, and control of pollution to the same degree as the coastal state's authority in its internal waters, save for the right of innocent passage.[844] In the contiguous zone, a coastal nation has more limited power to prevent infringements of its customs, fiscal, immigration, and

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acceptance of essentially all of the articles in the 1982 UNCLOS convention (other than those related to the deep seabed) as established international law.

[840] UNCLOS, Arts. 218, 219.

[841] *Id*. Arts. 19, 21.

[842] *Id*. Arts. 21(2), 24(1).

[843] *Id*. Art. 22. Also, under MARPOL, coastal states may designate Particularly Sensitive Sea Areas (PSSAs) and adopt environmental measures to protect these specific areas.

[844] UNCLOS, Art. 2.

sanitary laws and regulations. A coastal state's authority is most constrained in the Exclusive Economic Zone where it may only undertake enforcement proceedings for the prevention, reduction, and control of pollution, subject to certain safeguards established in UNCLOS.[845]

Other International Laws

In addition to UNCLOS, two other international laws are important in the regulation of marine operations: the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL).

SOLAS specifies minimum international standards for construction, various types of equipment, and stability for passenger vessels and operational requirements for all vessels for safety of navigation.[846] SOLAS establishes procedures and requirements for the effective management of vessels by vessel owners and operators, to ensure safety of life at sea and protection of the marine environment.[847] SOLAS also requires ships and companies to comply with the International Ship and Port Facility Security Code, which provides for the appointment of security officers and recommendations on preparing ship and port facility security plans.[848]

MARPOL applies to the discharge of harmful substances from vessels.[849] Six annexes to the Convention address different pollutants. Annexes I and II provide vessel design, construction, equipment, and operating standards for reducing pollution from oil discharges and noxious liquids carried in bulk, respectively. Annex III addresses harmful substances carried in package form. Annex IV addresses vessel sewage. Annex V addresses ship-generated wastes and specifically prohibits the discharge of any kind of plastics. Annex VI addresses air emissions from vessels including ozone-depleting substances, nitrogen oxides, sulfur dioxides, and volatile organic compounds from tankers. The U.S. has signed and ratified Annexes I-III and V, while Annex VI has been signed by the U.S. and has been transmitted to the U.S. Senate but has not yet ratified.[850]

10.2.3 Regulation in State Territorial Waters

State territorial waters are those areas within three nautical miles of the coast as discussed in more detail in section 1.2. Within these waters, the state has the right to enforce

[845] *Id*. Art 220.
[846] 32 U.S.T. 47, T.I.A.S. No. 9700 (done at London, Nov. 1, 1974). It entered into force worldwide on May 25, 1980. Protocol of 1978 Relating to the International Convention for the Safety of Life at Sea, 32 U.S.T. 5577, T.I.A.S. 10009 (done at London, February 17, 1978). The Protocol entered into force worldwide on May 1, 1981.
[847] *Id*. at Chapter IX.
[848] *Id*. at Chapter XI-2.
[849] International Convention for the Prevention of Pollution from Ships, 12 I.L.M. 1319 (done at London, Nov. 2, 1973); Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973, 17 I.L.M. 546 (done at London, Feb. 16, 1978).
[850] George W. Bush, Message to the Senate (May 15, 2003) (transmitting annex for ratification of the Senate. Last search of http://thomas.loc.gov on April 24, 2006.

environmental and other laws that do not conflict with federal laws regulating use of the marine environment. For example, state law explicitly consents to allow the U.S. military to use state territorial waters for military target practice operations[851] subject to public use of the waters.

The state also recently enacted regulations to prevent or deter the transmission of invasive aquatic species with the passage of the Marine Invasive Species Act.[852] The act is discussed in Section 9.9.1. State law also prohibits trash incineration onboard cruise and ocean-going ships within state waters[853] and the release of sewage or gray water into waters of the state.[854]

10.3 Navigation

The public's right to access along and to the coast is preserved by Article 10 § 4 of the California Constitution which imposes the public trust on tideland areas. Various courts have interpreted this section to impress lands fronting on navigable waterways with a public trust, as discussed in Chapter 3.[855] Sections of the Government Code[856] and the California Coastal Act also implement this section of the constitution.

Several sections of the Harbors and Navigation Code regulate navigation within state waters. Section 132 of the Code makes it a misdemeanor to obstruct navigation, in ports, harbors, or coves within the state. A variety of vessel safety devices are also regulated by this code[857] as well as by the Department of Labor regulations[858] and oil spill response regulations.[859] The code also provides for the prevention and removal of derelict and abandoned vessels in state waters.[860]

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[851] Gov't Code § 118.
[852] Pub. Res. Code § 7200, *et seq.*
[853] Health & Safety Code § 39362.
[854] Pub. Res. Code §§ 72420, 72420.1 & 72440.
[855] *See Firemen's Fund Ins. Co. v. Standard Oil Co. of Cal*., 339 F.2d 148 (9th Cir. 1964); *Spalding v. U.S*., 17 F. Supp. 957 (S.D. Cal. 1937), aff'd 97 F.2d 697, *cert. denied*, 305 U.S. 644. *Kern River Public Access Committee v. City of Bakersfield*.(1985) 217 Cal. Rptr. 125, 170 Cal.App.3d 1205 (Ca App. 5 Dist.) *Aptos Seascape Corp. v. Santa Cruz County* (1982) Cal. Rptr. 191, 138 Cal.App.3d 484, (App. 1 Dist. 1982), appeal dis. 464 U.S. 805. *Personal Watercraft Coalition v. Bd. of Supervisors*, (2002), 100 Cal. App. 4th 129. 122 Cal. Rptr. 2d 425, 427.
[856] Gov't Code § 66478 ("It is the intent of the Legislature, by the provisions of Sections 66478.1 through 66478.10 of this article to implement Section 4 of Article X of the California Constitution insofar as Sections 66478.1 through 66478.10 are applicable to navigable waters").
[857] See, e.g., Harbors & Nav. Code § 254, 256, 258, 261, 654
[858] See Labor Code §§ 6500, *et seq.* (permitting regulation of occupational health and safety)
[859] See Gov't Code §§ 8670, *et seq.* (relating to vessel safety devices to prevent and respond to oil spills).
[860] Harbors & Nav. Code, commencing with § 510.

Cities and Counties are authorized to establish ports and harbors within their jurisdictional boundaries.[861] The local jurisdiction is then responsible to ensure public access to navigable waters, build improvements and structures, and operate ferries. Cities and counties may also adopt regulations concerning the navigation and operation of vessels, personal watercraft, and marine events.[862]

10.4 Vessels

Control and registration of vessels in marine and coastal waters is regulated largely by federal and state law, though local laws can also apply.[863] Because of the international character of modern shipping, vessels have traditionally been regulated through international conventions and treaties to promote uniformity. One of the primary treaties on international shipping regulation is the 1982 United Nations Convention on the Law of the Sea (UNCLOS), which establishes the jurisdictional and enforcement responsibilities, as discussed above.

10.4.1 Federal Controls

The commercial operation of ships in navigable waters of the United States is subject to the maritime jurisdiction and as such is governed by federal statutes. These include federal statutes regarding the admiralty jurisdiction of the courts, navigation and navigable waters in domestic and international waters,[864] shipping regulation,[865] limitations on liability, and specific acts related to workplace safety on ships and wharf areas. Article III, § 2 of the U.S. Constitution grants exclusive federal court jurisdiction over maritime and admiralty claims. An accurate and thorough discussion of the admiralty jurisdiction of the federal courts is beyond the scope of this inventory.

With respect to recreational boating activities, the Federal Boat Safety Act of 1971[866] gives the Secretary of Transportation authority to issue regulations "establishing minimum safety standards for recreational vessels and associated equipment, and establishing procedures and tests required to measure conformance with those standards." The act further provides that "a State or political subdivision of a State may not establish, continue in effect, or enforce a law or regulation establishing a recreational vessel or associated equipment performance or other safety standard or imposing a requirement for

[861] Gov't Code, commencing with §39900.
[862] Harbors and Nav. Code § 268.
[863] See *Personal Watercraft Coalition v. Board of Supervisors* (2002) 100 Cal.App.4th 129, 146-154, 122 Cal.Rptr.2d 425 (App. Dist. 1)(finding local ordinance banning thrill craft in coastal waters not preempted by state and federal law).
[864] See, e.g., Ports and Waterways Safety Act (33 U.S.C. §§ 1221 *et seq*.); the Inland Navigation Rules (33 U.S.C. §§ 2001 *et seq*.); and the International Navigation Rules (33 U.S.C. §§ 1601 *et seq.).*
[865] See., e.g., Shipping Act (46 App. U.S.C.. §§ 801, et seq.); the Carriage of Goods by Sea Act (46 App. U.S.C. §§ 1300, et seq.) and the Harter Act (46 App. U.S.C. §§ 190, et seq.).
[866] Codified at 46 U.S.C. §§ 4301-4311.

associated equipment … that is not identical to a regulation prescribed" by the Secretary of Transportation.[867]

10.4.2 State Controls

One of the well-defined exceptions to federal control of commercial shipping is the Congressional authorization for states to maintain their traditional role in licensing harbor pilots traveling in-state.[868] Chapter 2, Division 5 of the Harbors and Navigation Code provides for the creation of a Board of Pilot Commissioners for San Pedro, Monterey, San Francisco and Suisun bays.[869] The board has the authority to provide licensure of pilots in these areas of the state. Marine sanitation is also governed in part by state law. The Harbors & Navigation Code requires vessel terminals to have sewage pump-out facilities,[870] and makes it unlawful to disable marine sanitation devices on vessels in intra-state transit.[871]

Other laws related to boating and watercraft recreation are discussed in a circular developed by the Department of Boating and Waterways entitled "ABCs of the California Boating Law," available on the web.[872]

Another exception to federal preemption in this area relates to abandoned ships that rest in state waters. The Abandoned Shipwreck Act[873] which provides that the federal government asserts and transfers title to the state any "abandoned shipwreck" that either is embedded in submerged lands of a State or is on a State's submerged lands "and is included in or determined eligible for inclusion in the National Register. Determining whether a ship is abandoned, however, can be a difficult factual inquiry.[874]

10.5 Harbor and Port Districts

The Harbors and Navigation Code provides for five types of districts that may be established for the purposes of development, improvement, and operation of harbors and ports: Harbor Improvement Districts, Harbor Districts, Port Districts, River Port Districts, and Small Craft Harbor Districts.[875] Districts may be established by petitioning the board of supervisors of the county in which the district will be located, followed by the

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[867] 46 U.S.C. § 4306. "In 1871, Congress passed legislation which explicitly restated the states' pervasive role in the regulation of pilots, with certain carefully-drawn exceptions in which the federal role is supreme. The 1871 federal statutory scheme has remained largely intact to the present day; as now codified, it establishes a dichotomy in pilot licensures. There is a requirement that enrolled vessels - those traveling between United States ports, coastwise, or in inland waters…have federally licensed pilots." *Hochstetler v. Board of Pilot Comrs*. (1992) 6 Cal.App.4th 1659,1665, 8 Cal.Rptr.2d 403, 407 (citations omitted).
[868] See 46 U.S.C. § 8502.
[869] See Harbors & Nav. Code §§ 1150, *et seq.*
[870] Harbors & Nav. Code §§ 775.5, 776.
[871] *Id*. § 780.
[872] See http://dbw.ca.gov/Pubs/Abc/index.asp.
[873] 102 Stat. 432, 43 U.S.C. §§ 2101-2106.
[874] See *California v. Deep Research, Inc.*, 523 U.S. 491 (1998)
[875] Harbors & Nav. Code Division 8 (commencing with § 5800).

submission of a proposition to the voters within the proposed district.[876] Districts are managed by the county board of supervisors, an elected board, or an appointed board.[877] All districts may issue bonds, assess taxes, pass ordinances, acquire and dispose of property, exercise eminent domain, and borrow money.[878] Additionally, different types of districts have certain additional powers that are discussed below.

A harbor improvement district may include any portion of a county that borders a bay, harbor, inlet, or navigable water of the Pacific Ocean.[879] The district's work may include the dredging of channels, shipways, ship berths, anchorage places, and turning basins, and the construction of jetties, breakwaters, bulkheads, seawalls, wharves, ferry slips, and warehouses.[880] In addition to powers that all districts may exercise, harbor improvement districts may regulate anchorages, wharfages, and dockage of vessels within the harbor.[881]

A harbor district may include any portion of a county or city which includes a harbor.[882] The district may undertake the same activities that a harbor improvement district may undertake, described above, as well as the construction of roads and spur tracks or belt line railways, and any other work necessary for the development and improvement of the harbor.[883] Additional powers of harbor districts are detailed in Harbors & Navigation. Code, Division 8, Part 3.[884]

A port district must include a municipal corporation.[885] The district may do any work or make any improvement that will aid in the development or the improvement of navigation or commerce to or within the district.[886] Additional powers of port districts are detailed in Division 8, Part 4 of the Harbors and Navigation Code.[887]

A river port district may include any contiguous territory in one or more counties adjacent to a navigable river or to any channel connected with a navigable river.[888] A district may do any work or make any improvement that will aid in the development or

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[876] Harbor improvement districts: §§ 5823 and 6860; harbor districts: §§ 6011 and 6030; port districts: §§ 6211 and 6218; river port districts: §§ 6911 and 6812; small craft harbor districts: §§ 7011 and 7030.
[877] Harbor improvement districts: Harbors & Nav Code § 5900.8; harbor districts: § 6034; port districts: § 6240; river port districts: § 6830; small craft harbor districts: §§ 7030 and 7040.
[878] Harbors & Nav. Code, Division 8: (harbor improvement districts), Part 2; (harbor districts), Part 3; (port districts), Part 4; (river port districts), Part 6; and (small craft harbor districts), Part 7.
[879] Harbors & Nav. Code § 5820.
[880] Harbors & Nav. Code § 5820.
[881] Harbors & Nav. Code § 5900.9.
[882] Harbors & Nav. Code § 6010.
[883] Harbors & Nav. Code § 6012(d).
[884] *See e.g.,* Harbors & Nav. Code § 6077.2, (pilots and anchoring); *Id.* § 6077.3, (warehousing); *Id.* § 6077.4, (management of business); *Id.* § 6077.5, (facilities, aids, and equipment); *Id.* § 6110, (annexation); and *Id.* § 6077, (rates and charges).
[885] Harbors & Nav. Code § 6210.
[886] Harbors & Nav. Code § 6301.
[887] See for example: Harbors & Nav. Code § 6299, pilots; *Id.* § 6307, warehousing; *Id.* § 6295, (facilities); and *Id.*§ 6305, (rates and charges).
[888] Harbors & Nav. Code § 6810.

the improvement of navigation or commerce to or within the district.[889] Additional powers of river port districts are detailed in Division 8, Part 6 of the Harbors and Navigation Code.[890]

A small craft harbor district may be formed within a county that includes at least some part of the harbor proposed for development.[891] The district may acquire, construct, reconstruct, improve, repair, develop, maintain, and operate a harbor.[892] Additional powers of small craft harbor districts are detailed in Harbors & Navigation Code, Division 8, Part 7.[893]

10.6 California's Ports

10.6.1 Introduction

California's eleven major commercial ports are an integral part of the state and national economy[894]. In 2000, waterborne commerce through California's ports accounted for 40% of the national total.[895] The value of trade through the Customs Districts of Los Angeles, Long Beach, and Oakland was $392 billion in 2000.[896] California ports have facilities to transport all major types of cargo including breakbulk, neobulk, liquid bulk, dry bulk, containerized, roll on/roll off and heavy-lift cargoes.[897] They also support a variety of other activities including major ship repair services, commercial fishing, passenger services, and a variety of commercial and retail activities and recreation such as marinas, hotels, and restaurants.[898]

California's major ports are located either on state tidelands that were granted in trust to a port district or local government or on lands purchased on behalf of the public by such governmental entities.[899] Various types of governmental bodies administer ports. For example, ports may be governed by officials elected from or appointed by local districts or governed by departments of cities or counties.[900] Ports may be classified as primarily either operating or landlord ports depending on whether they operate their own maritime facilities or lease them to the private sector for operation.[901] Operating ports, including Sacramento and Stockton, generally own and operate wharves, terminals, storage and

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[889] Harbors & Nav. Code § 6901.
[890] *See e.g.*, Harbors & Nav. Code § 6899, (pilots); *Id.* § 6907, (warehousing); *Id.*§ 6895, (facilities); and *Id.* § 6905, (rates and charges).
[891] Harbors & Nav. Code § 7010.
[892] Harbors & Nav. Code § 7149.
[893] *See, e.g.*, Harbors & Nav. Code § 7152, (pilots and anchoring); *Id.*§ 7280, (annexation); and *Id.*§ 7152, (rates and charges).
[894] These ports are: Los Angeles, Long Beach, Oakland, Richmond, San Francisco, Redwood City, Port Hueneme, San Diego, Stockton, Sacramento, and Humboldt.
[895] National Ocean Economics Program, California's Ocean Economy (July 2005) at 56.
[896] *Id*.
[897] California Department of Commerce, California's Major Commercial Ports (December 1986) at 12.
[898] *Id*. at 12-13.
[899] *Id*.
[900] *Id*. at 5-7.
[901] *Id*. at 7.

other maritime facilities in exchange for fees and tariffs established by the port.[902] "Landlord ports", which includes the ports of San Diego, Long Beach, Los Angeles, Oakland, San Francisco, and Humboldt Bay, generally build and provide basic maintenance for wharves, terminals, and related maritime facilities, which are then operated by private sector companies under lease or tariff agreements with the port.[903]

This section discusses the ports of San Diego, Long Beach, Los Angeles, Oakland, San Francisco, and Humboldt Bay.

10.6.2 San Diego

The San Diego Unified Port District (more commonly referred to as the Port of San Diego) was created in 1962 by an act of the same name.[904] The Act states that a special district is necessary because of the separate cities and unincorporated areas within San Diego County, and the unique problems presented by the development of harbor and port facilities in the area.[905] The Act provides for the establishment of the Port of San Diego in order to develop and manage submerged lands within the harbor of San Diego, and promote commerce, navigation, fisheries, and recreation on San Diego Bay.[906]

The Port has many of the same powers as districts created under Division 8 of the Harbors and Navigation Code including the power to: pass ordinances: acquire and dispose of property: exercise eminent domain: issue bonds and levy taxes: regulate anchoring and docking: and manage facilities for the promotion of commerce, navigation, fisheries, and recreation within the district.[907]

The State conveyed certain tide and submerged lands to the Port as trustee to manage for the State of California.[908] The Port is governed by a seven-member Board of Commissioners—four members appointed by the City Councils of Chula Vista, Coronado, Imperial Beach and National City, and three members appointed by the City Council of San Diego.[909]

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[902] *Id*.
[903] *Id*.
[904] Stats. 1962, 1st Ex. Sess., chapter 67, see Harbors & Nav. Code, App. 1.
[905] *Id*. at § 2.
[906] *Id*. at § 4.
[907] Stats. 1962, 1st Ex. Sess., chapter 67, as amended, §§ 21-30 and 45.
[908] Stats. 1962, 1st Ex. Sess., chapter 67, as amended, § 14. *See also*: Unified Port of San Diego, Port Compass Strategic Plan 2002-2006 at 1. The plan is available on the Port's website at: http://www.portofsandiego.org/sandiego_about/strategicplan.asp.
[909] *Id*. at 2.

The Port operates two marine cargo facilities, a cruise ship terminal, and other anchorages and mooring areas for commercial and recreational vessels.[910] Until 2002, the Port also operated San Diego International Airport. However, on January 1, 2003 the Port transferred airport operations to the San Diego County Regional Airport Authority as required by Senate Bill 1896.[911] The Port is the landlord for most businesses along San Diego Bay and markets, leases, and administers approximately 600 tenants and subtenants throughout the tidelands.[912] The Port also operates over 150 acres of public parkland including 16 different parks along the waterfront.[913]

The Port is authorized to use the tidelands and submerged lands conveyed to it for "the establishment and maintenance of those lands for open space, ecological preservation, and habitat restoration."[914] The Port has jurisdiction over 1,800 acres of tidelands and submerged lands.[915] The Port oversees five programs to "restore the bay to a state more closely associated with its historic condition."[916]

10.6.3 Long Beach

The Port of Long Beach was established in 1911 when California granted all state-owned tidelands within the City of Long Beach in trust to the city for commerce, navigation, fishing, and recreation.[917] A Board of Commissioners whose five members are appointed by the mayor of Long Beach and confirmed by the City Council manages the Port.[918] As a landlord port, the Port leases land and facilities to private shipping and terminal companies for operation.[919]

The Port includes 3,200 acres, 10 piers, and 80 berths.[920] It is the second busiest port in the U.S. and over $100 billion worth of cargo moves through the Port each year.[921] The Port has prepared a Facilities Master Plan to "ensure that long-range planning for the Port reflects updated cargo forecast information as well as current transportation and rail studies" and it offers a "comprehensive strategy for the siting and development of Port of Long Beach facilities into the 21st century."[922] The Plan estimates the Port's current cargo handling capacity, as well as low and high forecasts for year 2020 volumes. According to the Plan, the Port can meet the low end of the 2020 volume forecast by "maximizing use of existing land, acquiring and redeveloping privately owned land,

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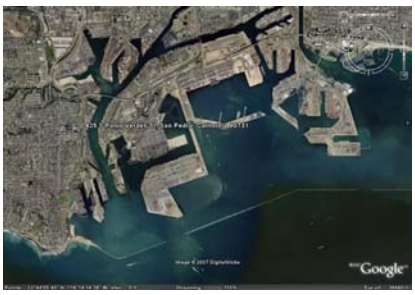
[910] *Id*. at 22.
[911] *Id*.
[912] *Id*. at 2.
[913] *Id*. at 31.
[914] Stats. 1962, 1st Ex. Sess., chapter 67, as amended, § 87(a)(7).
[915] Port Compass Strategic Plan 2002-2006 at 19.
[916] *Id*. These program areas are: 1. Site Assessment & Mitigation, 2. Stormwater Management 3. Resource Conservation & Air Quality, 4. Natural Resources Management and 5. Educational Outreach.
[917] California's Major Commercial Ports at 72.
[918] http://www.polb.com/about/overview/who_we_are.asp.
[919] California's Major Commercial Ports at 72.
[920] http://www.polb.com/about/overview/default.asp.
[921] *Id*.
[922] Port of Long Beach, Facilities Master Plan at 3; the plan is available at: http://www.polb.com/facilities/master_plan/brochure_in_pdf_format.asp.

increasing terminal operating efficiencies to the extent practical and constructing minor landfills totaling approximately 200 acres."[923] However, in order to meet the high end of the 2020 forecast, the Port would have to "develop additional cargo handling facilities, which would require landfills totaling approximately 450 acres."[924]

In 2005, the Port adopted its Green Port Policy and dedicated $100 million to environmental initiatives over the next five years.[925] The policy formalizes the Port's environmental protection principles: (1) protect the local community and environment from harmful port impacts; (2) employ the best available technology to minimize port impacts and explore advanced technology solutions; (3) promote sustainability in terminal design, development and operations; (4) distinguish the Port as a leader in environmental stewardship and regulatory compliance; and (5) engage and educate the community about Port development and environmental programs.[926]

The Port has also established comprehensive programs for air quality, water quality, wildlife protection, and contaminated site cleanup.[927]

10.6.4 Los Angeles



The Port of Los Angeles was created in 1907 when the state granted Los Angeles tidelands to be managed in trust for commerce, navigation, and fisheries.[928] The Port is operated and managed by a Board of Harbor Commissioners whose members are appointed by the Mayor of Los Angeles and confirmed by the City Council.[929]

The Port encompasses 7500 acres and 43 miles of waterfront.[930] The Port's facilities include 26 cargo terminals, including dry and liquid bulk, container, breakbulk, automobile and omni facilities.[931] It is the busiest container port in the U.S.[932]

As a landlord port, the Port leases property to "private firms for the construction, development and operation of terminal, commercial and retail facilities."[933] The Port's Real Estate Leasing Policy is "primarily focused on: (1) appropriate use, optimal

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[923] *Id*. at 2.
[924] *Id*.
[925] Port of Long Beach 2006-2016 Strategic Plan at 5; the Plan is available at: http://www.polb.com/about/publications/default.asp.
[926] http://www.polb.com/environment/default.asp.
[927] *Id*.
[928] http://www.portoflosangeles.org/about.htm.
[929] *Id*.
[930] *Id*.
[931] *Id*.
[932] http://www.portoflosangeles.org/factsfigures_portataglance.htm.
[933] Port of Los Angeles Leasing Policy: http://www.portoflosangeles.org/board/items/020106-item8.pdf.

utilization and competitive allocation of real property assets under the jurisdiction of the Port; (2) ensuring rental rates, fees and compensation for the use of Port property are fair, reasonable and uniformly applied; (3) treating similar maritime tenants on a fair and equal basis; and (4) providing for periodic adjustment of market rental rates for long term leases."[934] The Port adopted a Port Master Plan in accordance with the California Coastal Act in 1980 along with 17 subsequent amendments in order to guide the future development of the Port.[935] The Port adopted an Environmental Policy in 2005 that states that the Port is "committed to managing resources and conducting Port developments and operations in both an environmentally and fiscally responsible manner."[936] The Port lists several strategies for implementing the policy including "cleaner-burning vehicle operations in and around the Port, more efficient cargo-handling; improved infrastructure; and biological, industrial and internal environmental programs."[937] The Port also includes a standing Community Advisory Committee which was established in 2001.[938] The Committee's purpose is to assess Port development actions and make recommendations to the Port Commissioners regarding environmental mitigation measures and quality of life concerns for the Port's communities.[939]

10.6.5 Oakland

The Port of Oakland was established in 1927 and is managed by a Board of Port Commissioners, whose members are nominated by the Mayor of Oakland and appointed by the City Council.[940] In addition to managing maritime activities, the Port owns and operates Oakland International Airport.[941] The Port includes 19 miles of waterfront, including approximately 900 acres devoted to maritime activities and 2,600 devoted to aviation.[942] The Port also owns and manages more than 400 acres of developable land, including Jack London Square, Embarcadero Cove, and the Oakland Airport Business Park.[943]

The Port has twenty deepwater berths, 35 container cranes, ten container terminals, and two intermodal rail facilities.[944] The Port ranks fourth in the nation in terms of annual container traffic and the airport serves more than 9.8 million passengers and handles over 1.4 billion pounds of cargo annually.[945]

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[934] *Id*.
[935] Summary of the Port Master Plan, available at: http://www.portoflosangeles.org/publications_MPS.htm.
[936] http://www.portoflosangeles.org/environment_emp.htm.
[937] *Id*.
[938] http://www.portoflosangeles.org/pcac.htm.
[939] *Id*.
[940] http://www.portofoakland.com/maritime/factsfig.asp and http://www.portofoakland.com/portnyou/portoffi.asp.
[941] http://www.portofoakland.com/portnyou/overview.asp.
[942] *Id*.
[943] http://www.portofoakland.com/portnyou/overview.asp.
[944] http://www.portofoakland.com/maritime/factsfig.asp.
[945] http://www.portofoakland.com/portnyou/portoffi.asp.

The Port has several environmental programs including: a program to help replace older trucks with new cleaner-burning trucks that operate in the maritime area; a wetlands project program; a clean water program; the VISION 2000 clean air program; and an emergency response program.[946]

[946] http://www.portofoakland.com/environm/programs.asp.

10.6.6 San Francisco

The California Legislature created the Board of State Harbor Commissioners in 1863 to guide the development and operation of the Port of San Francisco.[947] In 1968, the State transferred its waterfront responsibilities and the public tidelands to the City and County of San Francisco, which created the Port Commission.[948] The Port Commission governs the Port of San Francisco through a Board of Commissioners whose members are appointed by the Mayor of San Francisco and confirmed by the Board of Supervisors.[949] As trustee for the tidelands, the Port Commission is required to "promote navigation, fisheries, and maritime commerce, to protect natural resources, and to develop recreational uses that attract people to enjoy the Bay and waterfront."[950] The Port Commission's jurisdiction includes 7.5 miles of waterfront, which it "develops, markets, leases, administers, manages, and maintains," including "over 550 ground commercial, retail, office, industrial and maritime industrial leases."[951] The Port has adopted a Waterfront Land Use Plan that "establishes the foundation and framework for new development projects (maritime and non-maritime, publicly- and privately- financed), real estate leasing and asset management, public access, open space and environmental improvements, and preservation of the Port's historic resources."[952]

The Port has several environmental advisory groups and committees such as the Fisherman's Wharf Environmental Quality Advisory Committee and the Central Waterfront Advisory Group.[953] The Port also has several programs for environmental stewardship, including programs for parks and open space and storm water management.[954]

10.6.7 Humboldt Bay

The Humboldt Bay Harbor, Recreation, and Conservation District Act created the Humboldt Bay Harbor, Recreation, and Conservation District in 1970.[955] The Act states that a special district is necessary because of the separate cities and unincorporated areas within Humboldt County, the

[947] California's Major Commercial Ports (December 1986) at 163.
[948] http://www.sfport.com/site/port_page.asp?id=31784.
[949] http://www.sfport.com/site/port_index.asp?id=30555.
[950] http://www.sfport.com/site/port_page.asp?id=30592; *see also*, Stats. 1968, ch. 133, as amended, known as the "Burton Act."
[951] http://www.sfport.com/site/port_index.asp?id=30555.
[952] http://www.sfport.com/site/port_page.asp?id=30592.
[953] http://www.sfport.com/site/port_index.asp?id=30590; see also, http://www.sfgov.org/site/port_page.asp?id=34943.
[954] *Id*.
[955] Stats. 1970, chapter 1283, as amended.

unique problems presented by the development of harbor and port facilities in the area, and the need for development and protection of the natural resources of the area.[956] The Act provides for the establishment of the District in order to: (1) develop and manage Humboldt Bay; (2) promote national and international commerce, navigation, fisheries, and recreation on the bay; and (3) develop and protect the natural resources of the area.[957]

The District has many of the same powers as districts created under Division 8 of the Harbors and Navigation Code including the power to: pass ordinances: acquire and dispose of property: exercise eminent domain: issue bonds and levy taxes: regulate anchoring and docking: and manage facilities for the promotion of commerce, navigation, fisheries, and recreation within the district.[958] The District is governed by five elected commissioners and has jurisdiction over all tidelands, submerged lands, and other lands granted to the District including all of Humboldt Bay.[959]

The Bay's main historic uses were for a large commercial fishing fleet and the exportation of timber products.[960] Today, port development overseen by the District includes "channel maintenance, channel improvement, dredging projects, port marketing and shipping facility improvements, oil spill response, navigation safety education, and oceanographic research."[961]

The District has authority to grant permits, franchises, and leases for any proposed development within the District's jurisdiction.[962] The District's Woodley Island Marina includes boat slips, commercial areas, food services, and recreational activities.[963] Recreational development within the District includes the Shelter Cove open-ocean boat launching facility, sportfishing, and hiking trails.[964]

The District manages three wildlife areas: Gerald O. Hansen Wildlife Area on Woodley Island, the King Salmon restoration area, and the Park Street wetland at Eureka Slough.[965] The District is also developing the Humboldt Bay Management Plan that will serve as a "management guide, planning tool, and policy strategy" for the District.[966] The Management Plan's current mission statement is to "provide a comprehensive framework for balancing and integrating conservation goals and economic opportunities in a cooperative manner for the management of Humboldt Bay's resources."[967]

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[956] *Id*. at § 2.
[957] *Id*. at § 4.
[958] Stats. 1970, chapter 1283, as amended, § § 21-32, 40, and 48.
[959] http://www.humboldtbay.org/harbor/harbor_district/district_overview.html.
[960] *Id*.
[961] Draft Humboldt Bay Management Plan (July 2005) at S-2.
[962] http://www.humboldtbay.org/harbor/harbor_district/what_we_do.html.
[963] *Id*.
[964] http://www.humboldtbay.org/con_rec/recreational_activities.htm.
[965] Draft Humboldt Bay Management Plan (July 2005) at S-3.
[966] *Id* at 2. The draft is available at: http://www.humboldtbay.org/con_rec/management_plan.htm.
[967] *Id* at 24.

10.6.8 Other Ports

Other Ports along California's coast come under a different standard of review than the "commercial ports" designated under Chapter 8 of the Coastal Act. These ports are not granted permitting authority and must apply for coastal permits for proposed facility developments. The Coastal Act does not require that port master plans be developed for these ports and harbors, although planning activities occur through local port planning districts.

Minor California Ports[968]

These ports are critically important to the State because they support major recreation, fisheries and industrial uses. Most of these ports are smaller than the San Francisco Bay and commercial ports, but face many of the same management issues. The smaller ports experience competition for valuable port space, dredging is often required to maintain entrances, and recreational and commercial vessel traffic conflicts often arise. Examples of some of these ports and harbors located along the California coast include Crescent City, Moss Landing, Port San Luis, Newport Bay, and Dana Point Harbor.

10.7 Dredging

The management and disposal of dredge spoils is discussed in Section 9.7. The principle federal law is the Rivers and Harbors Act,[969] administered by the U.S. Army Corps of Engineers. In order to dredge, ports and developers must obtain a dredged permit in compliance with section 404 of the Clean Water Act.[970] Certain discharges of dredged or fill material into waters of the United States are also regulated under other authorities of the Department of the Army. These include dams and dikes in navigable waters of the

[968] *Source, Dep't Fish and Game, Office of Spill Prevention and Response, A Survey Of Non-Indigenous Aquatic Species In The Coastal And Estuarine Water Of California, App. E.)*
[969] 33 U.S.C. § 304.
[970] 33 U.S.C. § 1344.

United States pursuant to section 9 of the Rivers and Harbors Act of 1899[971] and certain structures or work in or affecting navigable waters of the United States pursuant to section 10 of the Rivers and Harbors Act of 1899.[972] The Army Corps is authorized to issue a Section 404 Permit for the discharge of dredged or fill material into waters of the U.S., provided that such discharges are found to be in compliance with the Sections 401 and 404(b)(1) guidelines published by the U.S. Environmental Protection Agency. Other state water quality criteria, such as those identified in the Ocean Plan, may also be involved.

The Harbors and Navigation Code authorizes the Department of Boating and Waterways to cooperate with the United States Army Corps of Engineers, or other federal agencies for the dredging of harbors and the erection of breakwaters, piers, or other devices for protecting vessels.[973] In addition to the Water Code sections discussed in section 9.7, the Fish and Game Code requires permits associated with fresh water dredging activities.[974] California Coastal Act and the McAteer-Petris Act will also require permits for dredge and fill projects along the coast, as discussed generally in Chapter 5.

The Department of Boating and Waterways, in conjunction with other state and local entities has formed the California Coastal Sediment Management Workgroup to develop a Sediment Master Plan outlining regional approaches to beneficially reuse dredge material for restoring coastal beaches and watersheds.[975]

10.8 Port Security and Anti-Terrorism Laws

10.8.1 International Law

In 2002 the International Maritime Organization held a conference on maritime safety and anti-terrorism. The Conference adopted a number of amendments to the 1974 Safety of Life at Sea Convention (SOLAS), including a new International Ship and Port Facility Security Code. The Code contains detailed security-related requirements for Governments, port authorities and shipping companies in a mandatory section (Part A), together with a series of guidelines about how to meet these requirements in a second, non-mandatory section (Part B). The Conference also adopted a series of resolutions designed to add weight to the amendments, encourage the application of the measures to ships and port facilities not covered by the Code and pave the way for future work on the subject. The reader is encouraged to look at the IMO Website for further information.

[971] 33 U.S.C. 401.
[972] 33 U.S.C. § 403.
[973] Harbors & Nav. Code § 60.4.
[974] See Fish & Game Code § 5653 (vacuum dredge permits); *Id.* §1602 *et seq*. (stream bed alteration permits)
[975] See http://www.dbw.ca.gov/csmw/csmw.htm.

10.8.2 Federal Law

The Homeland Security Act of 2002 reshaped many of the federal governmental functions in providing port and border security.[976] Under the Act, the U.S. Coast Guard and the Bureau of Customs and Border Protection are tasked with ensuring port and maritime safety.

The Coast Guard serves as: (1) the lead federal agency for Maritime Homeland Security when responses require civil authorities; (2) the Federal Maritime Security Coordinator in U.S. ports as designated by the Maritime Transportation Security Act of 2002; and (3) a supporting agency to the Federal Emergency Management Agency for declared disasters or emergencies under the Federal Response Plan.[977] The Bureau of Customs and Border Protection is a new agency within the DHS, created to bring coordination between agencies responsible for maritime security. The agencies existing within the CBP are: United States Customs (Customs), the Border Patrol, the Immigration and Naturalization Service, and the United States Department of Agriculture.

The Maritime Transportation Security Act of 2002 (MTSA)[978] was enacted, to secure and protect American maritime interests by minimizing the threat of terrorist attacks. The Act provides extensive new requirements for port security and planning, including assessment of port facilities for vulnerability to terrorist attack, security planning, implementation of transportation security cares, enhanced crewmember identification requirements, cargo tracking, and enhanced identification and tracking of commercial vessels in maritime commerce.[979]

10.8.3 State Law

The Hertzberg-Alarcon California Prevention of Terrorism Act criminalizes the use of weapons of mass destruction in a form that may cause widespread and significant damage to public natural resources, including coastal waterways, beaches, and surface waters.[980] The Act also makes it a criminal offense to use recombinant technology or any other biological advance to create new pathogens or more virulent pathogens that can cause damage to public natural resources.

Funding for securing state water supplies from terrorist attack or destruction are provided by the Water Security, Clean Drinking Water, Coastal and Beach Protection Fund of 2002 (Proposition 50) . Proposition 50 provides fifty million dollars for the purpose of protecting state, local, and regional drinking water systems from terrorist attacks or deliberate acts of destruction or degradation.[981]

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[976] Pub.L. No.107-296, Title VIII, § 888, Nov. 25, 2002, 116 Stat. 2249
[977] See 6 U.S.C. § 468.
[978] Pub.L. No.107-295, Nov. 25, 2002, 116 Stat. 2064.
[979] 46 U.S.C.A §§ 70101, *et. seq*.
[980] Penal Code §§ 11415, *et seq.*
[981] Water Code § 79520.

CHAPTER 11: EDUCATION AND RESEARCH

Angel Island: Photo: Caleb Hughes

11.1 Introduction

No discussion of how California and the United States interact with our coastal and ocean environment would be complete with out at least some mention of the significant educational and research activities that occur in these areas. Section 2.3.21 discusses briefly California's universities and their active involvement in ocean education and research. Appendices 4 and 5 to the U.S. Commission on Ocean Policy also provide a comprehensive inventory of U.S. marine research facilities.[982]

Because of the international character of ocean research, international treaties and practices figure prominently in the regulation of marine research. The U.N. Convention on the Law of the Sea,[983] Part XIII affirms the right of all States to conduct marine scientific research and sets forth obligations to promote and cooperate in such research. The Convention sets forth the rights and obligations of member states and competent international organizations with respect to the conduct of marine scientific research in different areas. For example, coastal states retain an unqualified right to regulate, authorize, and conduct marine scientific research in the territorial sea.[984] Within the Exclusive Economic Zone and continental shelf, coastal states have a qualified right to regulate, authorize and conduct marine scientific research.[985] Although not ratified by the U.S., the Convention's assurances for marine research are among the chief benefits of

[982] See http://www.oceancommission.gov/documents/full_color_rpt/append_4.pdf and http://oceancommission.gov/documents/full_color_rpt/append_5.pdf.
[983] United Nations Convention on the Law of the Sea, U.N. Doc. A/CONF.62/122, 21 I.L.M. 1261 (done at Montego Bay, Dec. 10, 1982).
[984] *Id.*, Article 245; *see also* Articles 19(2)(j), 21(1)(g), 40 & 54.
[985] *Id.*, Article 246.

ratification.[986] A variety of other treaties, such as the 1992 Convention on Biological Diversity,[987] and the International Convention on the Regulation of Whaling[988] have specific protocols for marine research and are often observed by U.S. researchers overseas. To the extent ratified by the U.S., these treaties may be enforced under U.S. domestic law as discussed in section 1.3.[989]

11. 2 Federal Laws

Many of the federal resource agencies have programs that provide outreach to students, teachers, and the public to inform them about ocean resource issues. Agencies that have developed educational programs related to environmental and scientific processes include the National Oceanic and Atmospheric Administration (NOAA), U.S. Navy, National Aeronautics and Space Administration (NASA), National Science Foundation (NSF), U.S. Environmental Protection Agency (EPA), DOI, Minerals Management Service, the National Park Service, U.S. Fish and Wildlife Service, and the U.S. Geological Survey.[990]

Two national-level ocean education programs are the result of public and private cooperation: the Centers for Ocean Sciences Education Excellence (COSEE) and the National Sea Grant College Program (Sea Grant). COSEE is a National Science Foundation program, with support from the Office of Naval Research and NOAA. COSEE has a number of regional centers including one in California[991] and a national office to create a coordinated program for ocean science education.[992] In California, Sea Grant, a partnership between NOAA, University of California, San Diego. and University of Southern California, is part of a national program to further ocean-related research, education, and outreach.[993] In 2006, Sea Grant is partnering with the Ocean Protection Council to implement the Council's Information, Research and Outreach Strategy by providing grant review and administrative services to help achieve further marine research in California.

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[986] See Message of President William Clinton, September 23, 1994, "In light of the essential role of marine scientific research in understanding and managing the oceans, the Convention sets forth criteria and procedures to promote access to marine areas, including coastal waters, for research activities." Reprinted at 7 GEORGETOWN INT'L L. REV. 77, 78 (1994).
[987] Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79, articles 12, 16, 20. The U.S. is not a party to this Convention, though marine researchers frequently abide by its terms in conducting marine research. Personal Communication with Dr. Karla Heidelberg, Sept. 17, 2006.
[988] Art. 17
[989] The Pelly and Packwood Amendments allow the Secretary of Commerce to determine whether a country is engaged, either directly or indirectly, in fishing operations that "diminish the effectiveness" of an international fishery agreement. See 22 U.S.C. § 1978 (Pelly Amendment); 16 U.S.C. § 1821(e)(Packwood Amendment).
[990] U.S. Commission on Ocean Policy, *supra* note 12, chapter 8.
[991] See http://www.cacosee.net/.
[992] *Id.*
[993] See http://www-csgc.ucsd.edu/ and http://www.usc.edu/org/seagrant/.

The Marin Protection, Research and Sanctuaries Act (discussed in section 9.7)[994] provides for ocean research as part of a comprehensive attempt to evaluate ocean conditions.[995] Title III of the Act authorizes the Secretary of Commerce to identify and designate national marine sanctuaries for the purpose of "preserving or restoring such areas for their conservation, recreational, ecological, or aesthetic values."[996] Channel Islands, Gulf of Farallones and Cordell Bank have been designated marine sanctuary, research areas under the act.[997] Other provisions of the act authorize the Secretary of Commerce, in conjunction with the Coast Guard and the EPA, to develop a program of research on the effects of dumping material in the oceans, coastal and other waters; to initiate a continuing program of research with respect to possible long-range effects of pollution and other man-made changes in ocean ecosystems; to investigate alternative disposal methods and to determine means of minimizing or ending ocean dumping

As part of the Coastal Zone Management Act, the National Estuarine Research Reserve System[998] assists states and territories to set aside representative estuaries for long-term research, education, and stewardship purposes. State governors nominate areas for inclusion in the program, and NOAA designates an estuarine area upon finding that it is a representative estuarine ecosystem suitable for long-term research and education. Once an area is designated, federal financial assistance is available for property acquisition, management, research, and educational activities. California has three national estuarine research reserves as discussed in section 6.2.3 National Estuarine Research Reserves.

11.3 State Laws

The California Coastal Act explicitly encourages the Coastal Commission to support and provide public education programs that outreach to schools, youth organizations, and non-profit organizations to encourage understanding of the conservation and wise use of coastal and ocean resources.[999] In partial fulfillment of this mandate, the Commission provides teaching materials and other resources for environmental education.[1000] The State Coastal Conservancy is also charged with providing public education in connection with water quality, conservation and research related to the marine environment.[1001]

California Ocean Resources Stewardship Act of 2000 (CORSA) establishes the non-profit known as the California Ocean Trust which seeks to provide funding for ocean

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[994] 16 U.S.C. §§ 1431 and 1447, *et seq*., and 33 U.S.C. §§ 1401 & 2801, *et seq*.
[995] 33 U.S.C. §§ 1441-1443.
[996] 16 U.S.C. § 1432.
[997] See, e.g., http://ncseonline.org/nle/crsreports/briefingbooks/oceans/l.cfm.
[998] See 16 U.S.C. § 1461, *et seq.*
[999] Pub. Res. Code § 30012(b)(1). See also Pub. Res. Code § 31165 (supporting public education and research related to preservation, restoration, or enhancement of ocean, coastal, bay, or watershed resources in San Francisco Bay area), and Pub. Res. Code § 31316 (supporting public education related to preservation, restoration, or enhancement of ocean, coastal, bay, or watershed resources and maritime history).
[1000] See http://www.coastal.ca.gov/publiced/directory/educate.html.
[1001] See Watershed, Clean Beaches, and Water Quality Act (Pavley AB 2534, Statutes of 2002), codified at Pub. Res. Code § 31220.

resource science projects and to encourage coordinated, multi-agency approaches to ocean resource science.[1002] The Trust works to combine public non-profit resources to promote new coastal and ocean research, education, and management approaches within California and serves as an advisory board to the Ocean Protection Council.[1003]

The California Education Code has a full chapter devoted to outdoor environmental education for public education. [1004] This chapter of the code establishes the Conservation Service within the Department of Education to develop programs in environmental awareness. The section provides authorization for hiring naturalists, transportation and acquisition of significant outdoor sites for environmental education.

At the university level, the California Centers for Ocean Sciences Education Excellence (COSEE) promote partnerships between college-level ocean research scientists and K-12 educators, in an effort to further ocean education. COSEE California is actively engaged in a number of voluntary efforts to increase public awareness of ocean ecosystems. This effort has received additional impetus from the recently enacted Education and the Environment Initiative (EEI)[1005]. The initiative changes relevant sections of the Education Code to require that curricula include materials on human effects on the environment.[1006] The Secretary of CalEPA, in cooperation with the Resources and Education Secretaries and others, is also directed to develop curricula related to environmental education in primary and secondary schools.[1007] The amendments require environmental principles be incorporated into academic content standards, inclusion into textbook adoption criteria in the areas of science, history/social science, English/language arts and mathematics, and the creation of a model curriculum for California's K-12 teachers.[1008]

In conjunction with California universities, the Ocean Protection Council has funded the Coastal Oceans Currents Monitoring Program (COCMP). This program seeks to integrate various efforts to monitor currents in the coastal ocean. Initially, COCMP will emphasize technology to measure and map surface currents. The State Coastal Conservancy and the State Water Resources Control Board provided initial funding, with $21 million from the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002 (Proposition 40) and the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Proposition 50). COCMP partner institutions will provide matching funds and cost sharing. More information can be found at the COCMP website.

Funding for public education has also been recognized as an important part of improving environmental condition. As part of Proposition 84 funding, $100,000,000 was made available to the Department of Parks and Recreation for grants for nature education and

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[1002] Pub. Res. Code § 36970, *et seq.*
[1003] See http://www.calost.org/.
[1004] Educ. Code, Title 1, Division 1, Pt. 6, Chapter 4, commencing with § 8700.
[1005] AB 1548 (Pavley, Chapter 665, Statutes of 2003) and AB 1721 (Pavley, Chapter 581, Statutes of 2005)
[1006] Educ. Code sec. 60041
[1007] Pub. Res. Code § 71301.
[1008] Pub. Res Code §§ 71301-71303.

research facilities museums, and aquariums that combine the study of natural science with preservation, demonstration and education.[1009]

[1009] Pub.Res.Code § 75063.