# **Public Comment to the California Ocean Protection Council Long Term Vision**

Date	Name	Affiliation	Subject of Communication
07-25-2005	Stephen Palumbi	Stanford University	Comments on the California Ocean and Coastal Information, Research, and Outreach Draft Strategy
09-05-2005	Linda Sheehan/ Burr Heneman/ Leslie Mintz	California Coast Keeper Alliance/ Commonweal/ Heal the Bay	Comments on Memorandum to California Ocean Protection Council from Sam Schuchat, Secretary, "Ocean Protection Council Projects" (6/10/05): Acting within an Overarching Vision of Integrated Action for the Benefit of California's Ocean Home
09-16-2005	Warner Chabot	Ocean Conservancy	Comments on Ocean Protection Council Projects



# Department of Biological Sciences Hopkins Marine Station STANFORD UNIVERSITY

OCEANVIEW BOULEVARD PACIFIC GROVE, CA 93950

TEL: (831) 655-6210 FAX: (831) 655-6215

July 25, 2005

Mike Chrisman, Chair, California Ocean Protection Council California Resources Agency 1416 Ninth Street, Suite 1311 Sacramento, CA 95814

RE: Comments for the California Ocean and Coastal Information, Research, and Outreach Draft Strategy

Dear Council Members,

The Draft Strategy for Information, Research and Outreach (IRO) is an ambitious and timely plan, for which the California Ocean Protection Council deserves much credit. However, there is a significant gap in the strategy that will impact the effectiveness of future ocean management. The goal of this letter is to suggest an overall remedy to be added to the Council's strategy.

Currently, the Council's strategy provides for the development of Information, Research and Outreach products, but there is no mechanism for coordinating these efforts, or for communicating their results. The development of a new California Oceans Synthesis Center would accomplish this purpose by coordinating the myriad monitoring and evaluation activities included in the strategy, synthesizing data results, and packaging information for use by policy makers, educators, researchers, and the general public.

The center would be built specifically to absorb scientific results from coastal projects supported by the Council, synthesize them with other state and national efforts, and produce products for diverse scientific, public and policy audiences. It would receive data and reports from MPA monitoring efforts already underway (such as CRANE), remote operated vehicle surveys, satellite or sea floor imagery, ecological and biological coastal surveys, CA Sea Grant products, Agency research efforts, etc.

The proposed center would have a large outreach mission, a crucial feature of the systems

ability to respond to changing management needs, and the changing nature of how Californians use the oceans. The outreach first allows the value of California's investment in marine ecosystem management to be available widely. Modeled after the successful Communication Partnership for Science and the Sea, this outreach arm would help package scientific and policy advances for the press, general public, staff of state agencies, legislators and marine management stakeholders such as recreational or commercial fishers.

This type of coordination would accomplish several purposes. It would ensure minimal overlap in monitoring efforts, minimize redundant costs, and assist the state in identifying critical gaps in research needed to answer policymaking and management questions. The Center's data synthesis function would package raw data into understandable and applicable conclusions, a critical step in ensuring useful, effective outreach of important information. The Center would also serve as a technology clearinghouse for monitoring and evaluation efforts throughout the state. An additional feature would be a two-way flow of information. Instead of only a one-way flow from science to the public, this part of the California Oceans Synthesis Center would alert the Center to concerns and questions by state management agencies, policymakers, stakeholders, and the general public.

## Proposed structure of the California Ocean Synthesis Center

Coordination: The center's mission would include maintaining active links to all the groups monitoring or evaluating all the MPAs in the State (e.g., CRANE)--including those funded from sources other than State agencies (e.g., PISCO). It would point out gaps in data collection and seek funds to fill them. It would reduce duplication, and promote data sharing. It would establish a statewide information exchange for coastal marine habitats that would be the repository of MPA monitoring and evaluation data.

**Technology**: The center would serve as a clearing house and central source for information about new technologies to monitor and evaluate MPAs, including underwater Remote Operated Vehicles, Biosensors, microsensors, chemical trace atlases, genetic tools, satellite imagery, ocean sensing arrays developed by other agencies, acoustic tracking technology, and open ocean tracking efforts (such as TOPP). In some cases, the center could own and loan out hardware for monitoring use. In others cases, it could provide advice about best-practice protocols and coordination.

**Synthesis**: The Center would use the data coming in from various sources to create a timely view of the status of near marine ecosystems and resources in MPAs throughout the state. Temporal trends, geographic comparisons, unusual changes, novel threats and recovery statistics would be synthesized from the data collected by monitoring groups and from other agencies, and the scientific community.

**Dissemination**: The output from these syntheses would be packaged for several different audiences. *Policy makers* would receive updates about local issues of concern to their districts, as well as statewide progress updates in ocean health and marine ecosystems.

The *general public* would receive updates about ocean related changes, recreational uses, commercial opportunities and important policy changes through the printed press, radio, and video releases. The *scientific community* and other agencies would receive updates of published papers and technical reports. *Educators* would receive tools for using updated information in classroom settings, and ways to involve students in the process of science.

**Costs**: These will depend strongly on the Council's decisions about the scope of goals and missions of an Ocean Synthesis Center. Given the costs of coastal science synthesis already known from PISCO, the costs of press liaisons, legislative outreach and other activities by COMPASS, and the coordination activities and agency links provided by the MLPA staff, an initial setup budget of \$1,000,000 and an annual payroll of about \$1,000,000 is a reasonable starting point. A 2-3% cost increase per year produces a 10-year cost estimate of \$13 million. These figures are placeholders pending a more detailed discussion with the Council.

### **Key application for the New Center: Future MPAs**

The need for this central system is especially true of the anticipated network of Marine Protected Areas (MPAs), which will need to be monitored and evaluated as a whole. The result of the California Marine Life Protection Act will be the establishment of a statewide network of MPAs, and a permanent need to monitor their functioning. Such monitoring is required for understanding our impact on the marine environment, to allow for adaptive management of the network, and to provide for better decision-making during the initial phases of establishing the network in different parts of the state. The inherent bargain of the MLPA process is that sacrifices made by stakeholders in setting up MPAs will be matched by a state commitment to monitor, evaluate and understand the health of California's marine ecosystems.

The Ocean Protection Council, in its *California Ocean and Coastal Information*, *Research, and Outreach Draft Strategy*, has acknowledged the great need for establishing highly technical and highly reliable monitoring efforts in California MPAs and along the coast. The strategy states "COPA requires the council to establish policies to coordinate the collection and sharing of scientific data related to coastal and ocean resources." Further, it "is to encourage and support information, research, monitoring, and outreach programs that are of clear benefit to the people of the state of California and that address key ocean and coastal resource management, policy, science and engineering issues that face the state." This effort is crucial, however, there is a need for an extra synthetic element in the protection system.

### **Building On Existing Efforts**

This Center would draw basic funding from the Council's bond effort, but also be able to apply for federal, state and foundation grants. It could be housed at Stanford University's Institute for the Environment, or other academic home, and fill a broad need for research synthesis. PISCO (research and monitoring), COMPASS (scientific outreach to the public

and to policy-makers), and the Stanford Institute for the Environment (institutional framework) have the expertise to create a successful center to carry out a program for marine synthesis and understanding.

California's coastline is an international center for marine management action and marine environmental understanding. As such, we have great responsibility to lead the nation, and the world, in managing our marine resources. We feel this center is critical to achieving the goals set forth by COPA (§35510(4); §35615(2); §35650(b)(2)(e-f)). The Ocean Protection Council has the capacity to provide this leadership and has expressed a strong interest in moving forward by taking advantage of the best marine science, and by providing a way for scientific understanding to continually improve and inform management.

I would be happy to continue a dialogue with you about this idea.

Sincerely

Stephen R. Palumbi

Professor of Biological Sciences, Stanford University

Co-PI, Partnership for Interdisciplinary Studies for the Coastal Oceans (PISCO)

Executive Council and Senior Scientist, Communications Partnership for Science and the Sea (COMPASS)

Communications Committee co-chair, Stanford Institute for the Environment Member, MLPA Science Advisory Team





September 5, 2005

Mike Chrisman, Chair and Members California Ocean Protection Council California Resources Agency 1416 Ninth Street, Suite 1311 Sacramento, CA 95814

**Re:** Comments on Memorandum to California Ocean Protection Council from Sam Schuchat, Secretary, "Ocean Protection Council Projects" (6/10/05): *Acting within an Overarching Vision of Integrated Action for the Benefit of California's Ocean Home* 

VIA EMAIL: COPCpublic@resources.ca.gov

Dear Chair Chrisman and Members of the Council:

On behalf of the California Coastkeeper Alliance, Commonweal and Heal the Bay, we thank you for the opportunity to submit these comments on above-described memo (Projects Memo). As we articulated in our July 25, 2005 comments on the "Draft California Ocean and Coastal Information, Research, and Outreach Strategy," the ultimate success of the Council is dependent on steady movement away from the current system of managing by single issue, and towards the vision of truly integrated, ongoing institutional and societal action for the benefit of California's ocean home, which spans land and sea. We ask that you begin to implement this vision by taking the two specific actions described below, and by considering our attached comments on the Project Memo's matrix of specific funding opportunities.

The Projects Memo states up front that "[b]y law, California now takes an ecosystem approach to ocean management." However, in practice, the ocean governance structure does not yet include the institutional linkages necessary to make this legal mandate a reality. The Council should develop a Projects strategy that not only works to restore the ocean environment, but also helps to develop those necessary linkages. Specifically, the Projects strategy should be part of a larger effort to: (a) obtain a clearer understanding of how various effects arise and develop in a common environment, and (b) take comprehensive, integrated, ongoing action based on that understanding for the benefit of the ocean environment. The priorities identified in the text of the Projects memo are a good start to this larger effort to integrate ocean protection actions across locations, media and agencies. We recommend that, in selecting initial projects for funding and action, the Council focus on those projects that both are ripe for funding, and that will provide early and clear assistance to the Council in the implementation of its longer-term, integrated ocean protection vision. We provide more detailed comments in Attachment 1 on some of the specific early projects that will help the Council put its best foot forward in achieving this vision.

In addition to funding specific research and restoration activities, the Council should consider other actions it can take to implement the larger vision of integrated, ongoing institutional and societal action for the benefit of California's ocean home. For example, the Scientific Consensus Statement on Marine Ecosystem-Based Management states that management goals "should reflect interagency management at all levels, as opposed to focusing on specific jurisdictions within an ecosystem." The Council should investigate implementation of a variety of cross-jurisdictional management goals through formal agreements (MOUs, contracts, etc.) and other mechanisms that link local, state, federal and tribal authorities.

In that vein, the **first specific action** we recommend that the Council take now to begin to develop these management linkages is to develop a cross-cut budget, similar to the one developed for the Bay-Delta Authority, which acts as the center of coordination for the interagency effort CALFED (see budget analysis included with this comment letter). The ideal model would be one in which the Council developed an annual cross-cut of activities that it and its member agencies plan to take in FY 05-06 pursuant to SB 1319, and then linked the budgets for those activities together, broadening the scope over time to include additional ocean- and coast-related activities. The benefits of this process are numerous, and include: (a) increased knowledge of where agencies are and are not integrating their ocean management activities, (b) increased opportunities for more efficient use of limited funds, and (c) increased opportunities for obtaining federal and other outside funds, as a national model of agency coordination and cooperation for the oceans. Because agencies are still working on their FY 05-06 budget change proposals, now is an ideal time for the Council to begin this process, at least incrementally.

There are numerous other examples of specific actions that the Council can take to create institutional linkages whose synergy will result in significantly enhanced ocean health. Such governance linkages, however, must be supported by strong linkages between society at large and its government, as well as between society and the ocean environment in which we all live. Without that underpinning of societal understanding, support and action, governance changes alone will be ineffective in the long term in protecting and enhancing the health of the ocean environment.

Accordingly, the **second action** that the Council can and should take now is to work to enhance societal-governance and societal-ocean environment linkages. With respect to the former, the Council should make it a priority to place links to the ocean-related governance information of its member agencies (hearings, meetings, upcoming decisions, etc.) on the Council's website, so that the public can better engage in local, state and federal decisionmaking on issues that may affect the ocean environment. With respect to the latter, the Council should ensure that ocean monitoring and science information is placed in a readily accessible form and location on the Web, so that the public can learn about and track the health of its ocean home. The Council also should strongly support expeditious and full implementation of the Education and the Environment Initiative (AB 1548, Pavley, 2003), which will produce the next generation of ocean stewards.

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<sup>&</sup>lt;sup>1</sup> "Scientific Consensus Statement on Marine Ecosystem-Based Management" (March 21, 2005), http://compassonline.org/files/inline/EBM%20Consensus%20Statement\_FINAL\_Mar%2021%2005\_v4.pdf.

One of the key purposes of COPA is to "integrate and coordinate the state's laws and institutions . . . to protect and conserve the ocean." As the Council identifies and takes on various projects and other actions to implement COPA's mandate, it should continually keep in mind that true integration means that these actions must not be simply about protecting the ocean for itself, or only so that humans can use the ocean sustainably, but because protecting the health of the ocean environment is the same as protecting our own health. California's ocean environment includes not only marine waters off of our shores, but also the land and air that affect the ocean environment, as well as all Californians, since we are all integrally bound up with the water, air and land around us. Protecting the ocean is protecting our home, and we urge the Council to take actions that best ensure its livability for ourselves and our future.

Thank you for the opportunity to provide these comments.

Sincerely,

Linda Sheehan **Executive Director** 

California Coastkeeper Alliance 510-770-9764

Inda Shuh

lsheehan@cacoastkeeper.org

Burr Heneman

Director, Ocean Policy Program

Commonweal 415-868-1460

burr@igc.org

Leslie Mintz

Law and Policy Manager

Heal the Bay (310) 453-0395

lmintz@healthebay.org

attachment

<sup>2</sup> Calif. Pub. Res. Code § 35515.

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## **ATTACHMENT 1**

# Comments on Projects Memo, Appendix One: "List of Potential OPC Projects"

In our comment letter to the Council dated June 1, 2005, we presented an initial suggested outline of various programmatic objectives and projects. These include objectives and projects related to marine protected area management, water quality enhancement, and measurement of changes in ocean health through integrated ocean observing and other monitoring activities. As the Council considers the Projects Memo and refines its own list of programs and projects, we ask that it ensure that funded actions serve the larger vision of integrated, ongoing institutional and societal action for the benefit of California's ocean home.

We have three overarching comments on the list of proposed project appended to the Projects Memo:

- While the identification of funding sources is quite helpful and should be retained, the governmental institution(s) to which these funds are being allocated, and the managing agency for the funds (if different), should be more clearly identified. This information will help improve future Council actions to integrate funding sources for the benefit of the ocean environment.
- The proposed projects in both the text of the Projects Memo and Appendix One should be assessed based on their overall impact on the health of California's ocean home; that is, their impacts beyond the immediate, single-issue focus under which they are currently categorized in Appendix 1. There are numerous ways to conduct this assessment; one straightforward way to begin would be to have a separate matrix that allows for identification of each agency that is currently involved in a proposed project and its general role (funding, oversight, implementation, monitoring, enforcement, etc.). This would provide the Council with an immediate (albeit simplified) picture of the level of integration of activities, which will in turn inform the Council on how to manage likely projects to ensure they implement the vision of integrated action for the benefit of California's ocean home.
- The Projects Memo would benefit from consideration of other, possible sources of funding for projects that could benefit the ocean. For example, a recent audit by the Department of Finance of the Oil Spill Prevention Administration Fund found an "excess fund balance" that "may provide opportunities for OSPR [the Office of Spill Prevention and Response] to strengthen its prevention, readiness and response activities." Suggestions in the audit include "[r]esearch into possible strategies and technologies that would reduce the effect of spills on marine and shoreline habitats and would accelerate habitat remediation"; such research may provide additional important insight into the status and operation of coastal and marine ecosystems. The Ocean Council should become involved in any planning resulting from the audit for use of the projected OSPAF funds.

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<sup>&</sup>lt;sup>3</sup> Department of Finance, Office of State Audits and Evaluations, "Report on the Department of Fish and Game, Office of Spill Prevention and Response: Review of Fiscal and Program Activities" (Jan. 2005), pp. 21-22.

Specific comments on some of the proposed projects are detailed below.

### **Water Quality and Pollution**

The text of the Projects Memo discusses and places high priority on several categories of extremely worthy water quality projects. Specifically, it focuses on coordination of coastal water quality monitoring, implementation of a "critical coastal areas pilot project," and funding for completion and implementation of a plan to control invasive species (which are, in fact, a form of biological pollution). However, these important efforts do not appear in the project matrix contained in Appendix 1; we recommend that they be added and highlighted.

In addition, we recommend that the \$10 million in funding from the SWRCB be focused on addressing areas of special biological significance (ASBSs), which represent a unique integration of marine life and water quality considerations. One way to accomplish this is through funding of Critical Coastal Area (CCA) initiatives, as the CCA effort has focused in large part on protection of ASBSs. The SWRCB will be implementing guidelines for the disbursement of these funds; we ask that the Council clearly support using most, if not all, of the \$10 million for CCA/ASBS projects, as well as for coordinated coastal monitoring efforts, particularly along the Central Coast.

### **Education/Policy/Governance**

Appendix 1 makes no mention of the state's Education and the Environment Initiative (AB 1548, Pavley, 2003) (EEI), which is the most significant environmental education opportunity for ocean-related learning in California, and possibly the nation. A major impetus for the creation of the Education and the Environment Initiative was to fill gaps in the state's current education about the oceans. As a state and national model program, the EEI should receive focused support from the Ocean Protection Council.

Although the EEI has received California Integrated Waste Management Board funds of \$7 million over two years for curricula development, additional funding needs still exist. Cal-EPA has detailed budgets and work plans that identify various areas of funding needs, such as additional curricula consultation for the state (perhaps from ocean experts), external review consultation, implementation coordination, grants to school districts for professional development, student assessment/program evaluation, and other projects. The Ocean Protection Council should work closely with Cal-EPA and stakeholders, who are identifying funding sources for future phases of implementation of the EEI.

Finally, another education effort that overlaps with water quality enhancement is development of rapid indicators of beach water quality. These test kits, when complete, will be designed to be used by anyone with basic training (such as lifeguards), and results can be available in just a few hours (as opposed to days currently). Immediate information on the quality of local beaches, which is where the public feels most tied to the ocean, will translate to increased awareness and stewardship of the ocean more broadly.

# AGENDA PART II

# ASSEMBLY BUDGET SUBCOMMITTEE NO. 3 NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION

# Assemblymember Fran Pavley, Chair

WEDNESDAY, MAY 18, 2005 STATE CAPITOL, ROOM 447 8:30 A.M.

<u>ITEM</u>	DESCRIPTION	PAGE
ITEMS TO BE	HEARD	
	CALFED	2
0540	SECRETARY FOR RESOURCES	4
3480	DEPARTMENT OF CONSERVATION	5
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3600	DEPARTMENT OF FISH AND GAME	6
3820	SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION	9
3860	DEPARTMENT OF WATER RESOURCES	10
3870	CALIFORNIA BAY DELTA AUTHORITY	18
3940	STATE WATER RESOURCES CONTROL BOARD	21
	PUBLIC COMMENT	

## CALFED ITEMS TO BE HEARD

In the Governor's May Revision, the Administration has proposed a three point plan for CALFED that is intended to ultimately result in the creation of a sustainable long term funding strategy for the program. This Plan contains the following:

**Independent Review:** One-time funding of \$300,000 (General Fund) for an independent programmatic and fiscal review of the CALFED Bay-Delta Program to ensure accountability, highlight accomplishments, determine program status, and provide guidance to the Program.

**Program Priorities:** The re-focus of the efforts of the California Bay-Delta Authority and the other CALFED state agencies on solving conflicts associated with Delta water supply, water quality, levee stability, and the environment. Program priorities will be reinforced in a ten-year action plan as described below.

**Financing:** The development of a ten-year action plan, to be developed in coordination with stakeholders and federal partners. The Administration sites that this action plan will focus on solving the highest priority Delta issues, link future water user payments to specific program actions that improve water supply reliability, balance statewide actions with regional water management, and include funding from the state, federal, and local levels consistent with the beneficiaries-pay principle. The Administration plans on requesting an additional \$40 million from the Federal Government in the 2006 fiscal year for CALFED activities. Lastly, the Administration's plan included expectations of \$30 million in payments from water users to the Ecosystem Restoration Program and other programs in proportion to the direct benefits derived.

**Staff Comments.** Consistent with actions taken by the subcommittee, the Administration has recognized the importance of a comprehensive assessment of the CALFED program as a first step to working towards a sustainable long-term financing plan that addresses our state's CALFED priorities. It is still unclear, however, what exact steps the Administration plans on taking to achieve a long-term finance plan and what the timeline will be for its completion. Under the current spending plan proposed by the Administration, CALFED bond funding will be fully depleted in two years. This fact, compiled with the inexistence of a finance plan and the uncertainty of when one will be developed further underscores the Legislature's necessity to carefully plan it's investment in CALFED in order to ensure that the state's CALFED priorities are protected.

In the May 11, 2005 hearing, the subcommittee approved actions to the CALFED budget. The following staff recommendations are for items that were left open on May 11<sup>th</sup> and for necessary changes due to new information presented to staff.

**Previous Subcommittee Action.** At the May 11 hearing of the Subcommittee, action was taken to approve a revised budget for the CALFED program. Some items were left open pending additional information from the Administration.

In addition to adopting a revised funding plan, the Subcommittee took the following actions:

- Adopted supplemental report language to require that the administration submit a zero-based budget for the CALFED program for the 2006-07 budget year.
- Trailer bill language to require the Administration to provide additional information on the state operations bond funds included in the base budget and budget change proposals for all local assistance and capital outlay expenditures supported by bond funds.

# **Funding Summary**

**Assembly CALFED Budget Summary.** The following chart summarizes the staff recommendations for the Assembly's alternative CALFED budget for 2005-06. The budget was constructed using the following general principles:

- Expenditures of local assistance and grant funds are generally proposed to be delayed.
- Activities and projects that have not been started, to date, are proposed to be delayed.
- Activities that existed prior to the existence of the CALFED program are proposed to be retained.

Department (\$ in thousands)	Governor's Budget*	Senate's Budget - May 9 Version**	Senate's Budget - May 17 Version	May 17 Version less Governor's Budget
Conservation	\$3,330	\$330	\$3,330	\$0
Forestry and Fire Protection	154	154	154	0
Fish and Game	3,610	3,209	3,610	0
Bay Conservation & Development Commission	88	0	88	0
Water Resources	206,295	72,692	130,573	-75,722
Bay-Delta Authority	19,673	33,839	19,673	0
Water Resources Control Board	8,459	1,902	1,902	-6,557

<sup>\*</sup> The Governor's budget totals have been revised since the May 9 hearing based on updated information from the administration.

\$241,609

\$112,126

-\$82,279

\$159,330

<sup>\*\*</sup> The May 9 version of the Assembly's budget contains errors that have been revised in the May 17 version. The May 17 version also includes amendments to the May 9 action. Those changes are denoted by "Y" throughout the agenda.

# 0540 SECRETARY FOR RESOURCES

**May Revision.** The May Revision includes an increase of \$300,000 in one-time funding from Proposition 50 bond funds for an independent programmatic and fiscal review of the CALFED program to ensure accountability, highlight accomplishments, determine program status, and provide guidance to the Program. This contract would be managed by the Resources Secretary.

**Staff Comments.** Staff finds that a review of the CALFED program would be a meaningful exercise and is consistent with the action taken by the Subcommittee on May 9 to request that the Administration submit a zero-base budget for the 2006-07 budget. Staff is concerned about the timing of this contract if the information from this review is to be incorporated into the 2006-07 budget.

**Staff Recommendation.** Staff recommends that the Subcommittee adopt the May Revision proposal to provide \$300,000 for a review of the CALFED program.

# 3480 DEPARTMENT OF CONSERVATION

**Staff Recommendation.** Staff recommends that the Subcommittee approve the following revised CALFED budget for DOC. Activities recommended for approval by the Subcommittee that are different from actions taken on May 9 are marked with a "Y".

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	Positions	Approve
BASE BUDGET				
Oversight and Coordination	\$96	Soil	1.0	X
		Conservation		
		Fund		
Watershed Program				
- Watershed Coordinator Grants	3,000	Prop 50	0.0	Y
- Watershed Program Technical Staff Support	234	Prop 50	2.0	X
Total Governor's Budget	\$3,330		3.0	Deny
<b>Total Assembly Budget</b>	\$3,330		3.0	

# 3540 DEPARTMENT OF FORESTRY AND FIRE PROTECTION

Staff Recommendation. No recommended changes to the Subcommittee's May 9 action.

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	Positions	Approve
BASE BUDGET				
Watershed Program				
- Watershed Program Technical Information	\$154	Prop 50	0.0	X
Support: Watershed Assessment Manual and				
Fire and Resource Assessment Program				
Watershed Resources				
Total Governor's Budget	\$154		0.0	
<b>Total Assembly Budget</b>	\$154		0.0	

## 3600 DEPARTMENT OF FISH AND GAME

**Staff Recommendation.** Staff recommends that the Subcommittee approve the following revised CALFED budget for DFG. Activities recommended for approval by the Subcommittee that are different from actions taken on May 9 are marked with a "Y".

Staff recommends that the Subcommittee reject the May Revision proposal to increase reimbursements by \$30 million for water user contributions in the budget year until the Administration can provide further information on what the reimbursements would be used to fund in the budget year, including the consequences of not contributing this funding in the budget year.

Furthermore, staff recommends that the Subcommittee adopt trailer bill language that requires DFG to focus the ecosystem restoration program on restoration of native delta fisheries and anadromous fisheries. Specifically, the Department should redirect funding from projects that primarily benefit terrestrials to focus more resources on native delta fisheries and anadromous fisheries.

Activity	Amount	Fund Source	Positions	Approve
BASE BUDGET	1111104111		1 001010115	110010
Oversight and Coordination	\$166	General Fund	2.0	X
<b>Ecosystem Restoration Program</b>				
- Supports regional plan development, field studies, review of permits and environmental documentation, restoration projects.	\$4,350	Prop 50	23.0	Y
- Supports regional plan development, field studies, review of permits and environmental documentation, restoration projects.	\$628	General Fund	5.5	Y
Conveyance Program				
- Supports studies to define fish movement in the delta, assist in the development of technologies in water transfer and fish screening, examine sources of predation.	\$84	General Fund	1.0	Y
Science Program				
- Endangered Species Act compliance for the Interagency Ecological Program and the analysis and dissemination of other scientific data.	\$300	Prop 50	5.0	Y
- Endangered Species Act compliance for the Interagency Ecological Program and the analysis and dissemination of other scientific data.	\$228	Striped Bass Stamp	1.0	Y
ADDII EINANCE LETTED				
APRIL FINANCE LETTER  Ecosystem Restoration Program  - Technical correction to eliminate one-time funding inadvertently left in the Governor's proposed budget.	-\$2,146	Prop 50	0.0	X

Activity	Amount	<b>Fund Source</b>	Positions	Approve
Science Program				
- Technical correction to eliminate (\$235,000) one-time funding inadvertently left in the Governor's proposed budget. (This item was already reflected in the budget crosscut so to avoid double counting is not being deducted.)		Prop 50	0.0	X
MAY REVISION				
<b>Ecosystem Restoration Program</b>				
- Contributions to ecosystem restoration	\$30,000	Reimburse-	0.0	Deny
projects from water users.		ments		•
Total Governor's Budget	\$33,610		37.5	
<b>Total Senate Budget</b>	\$3,610		37.5	

# 3820 SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

**Staff Recommendation.** Staff recommends that the Subcommittee approve the following revised CALFED budget for BCDC. Activities recommended for approval by the Subcommittee that are different from actions taken on May 9 are marked with a "Y".

Activity (\$ in thousands)	Amount	Fund Source	<b>Positions Approve</b>
BASE BUDGET			
Oversight and Coordination	\$88	General Fund	1.0 Y
Total Governor's Budget	\$88		1.0
<b>Total Assembly Budget</b>	\$88		1.0

# 3860 DEPARTMENT OF WATER RESOURCES

**Staff Recommendation.** Staff recommends that the Subcommittee approve the following revised CALFED budget for DWR. Activities recommended for approval by the Subcommittee that are different from actions taken on May 9 are marked with a "Y".

Staff recommends that the Subcommittee approve budget bill language that requires an agreement that will engage local parties in the development of the Los Vaqueros surface storage project.

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	<b>Positions</b>	Approve
BASE BUDGET				
Oversight and Coordination				
- Supports review of CALFED-related	\$263	General Fund	2.0	X
encroachment permit applications submitted				
to the Reclamation Board.				
<b>Ecosystem Restoration Program</b>				
- Supports federal-state cost-share agreement	\$1,575	Prop 204	1.0	Y
between DWR, USBR, USFWS, and DFG for				
fishery restoration activities.				
- Supports studies and grants to address water	\$10,016	Prop 13		Deny
quality problems causing low dissolved				
oxygen in the Stockton Deep Water Ship				
Channel and mercury issues. (These funds are				
not local assistance.)				
- Supports Fish Passage Improvement Program	\$1,155	Prop 50	5.6	Y
to do fish passage assessment.		-		
- Supports Aquatic Restoration Planning and	\$1,011	Prop 50	3.0	Y
Implementation Program to develop fish	Ψ1,011	110p 30	3.0	1
passage opportunities in the Yolo Bypass.				
passage opportunities in the 1010 Dypass.				
- Supports activities to manage the Four Pumps	\$4,385	State Water	3.0	X
Agreement to mitigate fish loss at the State		<b>Project Funds</b>		
Water Project's Delta Pumping Plant.				

Activity (\$ in thousands)	Amount	Fund Source	Positions	Approve
<b>Environmental Water Account</b>				
- Environmental Water Account asset	\$17,548	Prop 50	0.0	Approve
purchases.				\$8.8
				million
- Environmental Water Account purchases state	\$550	Prop 50	5.0	Approve
support.				\$225,000
Water Use Efficiency				
- Supports the California Irrigation	\$1,135	General Fund	6.0	X
Management Information System and	+ )			
provides technical assistance and outreach for				
water conservation activities.				
- Supports administration of Chapter 7 Water	\$1,113	Prop 50	5.0	X
Use Efficiency grant program and Chapter 6				
Desalination Grant Program.				
- Supports technical assistance and review of	\$1,792	Energy	10.0	Y
agricultural water management plans, urban	Ψ1,772	Resources	10.0	1
water management plans, and development of		Program		
new water conservation technologies.		Account		
- Loans for agricultural water conservation and	\$8,436	Prop 13	0.0	Deny
agricultural water use efficiency programs.				
Water Transfers				
- Supports maintenance of the CALFED Water	\$460	General Fund	1.5	Deny
Transfer Clearinghouse and On Tap water	\$ <del>4</del> 00	General Fund	1.3	Delly
transfer database. Also supports coordination				
with CALFED EWA, Sacramento Valley				
Water Management Program, and CALFED				
ERP.				
XV 4 1 1M				
<ul><li>Watershed Management</li><li>Supports administration of Watershed grant</li></ul>	\$254	Prop 50	2.0	X
program.	ψ <b>4</b> .54	1 10p 30	2.0	Λ
brogram.				

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	Positions	Approve
<b>Drinking Water Quality</b>				
- Supports modeling ways of improving water quality in the Delta.	\$79	General Fund	0.0	X
- Supports data analysis and Delta computer modeling support for the CALFED drinking water quality program. The current focus is on improving water quality modeling of the upper San Joaquin River.	\$164	Prop 50	1.0	X
- Supports contracts with the Contra Costa Water District for the Old River-Byron Tract and Rock Slough-Veale Trace Water Quality improvement project and with USGS for the Low Intensity Chemical Dosing study project.	\$2,022	Prop 13	0.0	Deny
Levees				
- Supports staff to implement the Delta Levees Special Projects Program, Delta Levee Maintenance Subvention Program, Emergency Response, Risk Management, and Subsidence Research.	\$1,960	Prop 50	13.0	X
- Supports staff to implement the Delta Levees Special Projects Program, Delta Levee Maintenance Subvention Program, Emergency Response, Risk Management, and Subsidence Research.	\$373	State Water Project Funds	2.0	X
- Supports local assistance for the Delta Levee Maintenance Subventions Program.	\$16,817	Prop 50	0.0	X
Storage Program				
- Supports funding for grants for the Local Groundwater Assistance grant program.	\$6,400	Prop 50	0.0	Deny
Water Supply Reliability				
- Supports technical support in regional	\$1,868	Prop 50	14.0	Y
planning and acts as project managers on 22 MOU partnerships throughout the state.		•		

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	Positions	Approve
Conveyance Program				
- Supports North Delta Flood Control and Ecosystem Restoration Project.	\$465	General Fund	3.0	Y
- Supports construction of four permanent operable barriers and removal of four temporary rock barriers in the South Delta. Supports evaluation of fish screen intake alternatives, Delta Cross Channel reoperations, and Through-Delta Facility alternatives.	\$14,413	State Water Project Funds	30.0	X
Science Program - Supports monitoring and special studies of the water quality and ecology of the San Francisco estuary. Also supports contracts with DFG, USFWS, USGS, and various universities and laboratories.	\$6,201	State Water Project Funds	14.0	X
BUDGET CHANGE PROPOSALS Water Use Efficiency Program - Funds Chapter 7 water use efficiency grants.	\$30,136	Prop 50	0.0	
- Supports science and monitoring of existing water use efficiency projects to support awarding future grants.	\$1,802	Prop 50	0.0	X
- Supports contracts that would provide technical assistance to local entitites for special water use efficiency projects.	\$2,034	Prop 50	0.0	Deny
- Supports grants for desalination project feasibility studies and construction. (This BCP was not included in the May 9 version, but has been included to be consistent with what CALFED is counting towards its program.)	\$21,290	Prop 50	0.0	Y

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	Positions	Approve
Storage Program				
- Supports evaluation of the feasibility of north of delta storage (Sites reservoir).	3,300	Prop 50	37.0	X
- Supports the federal government's efforts to evaluate the possibility of enlarging Shasta Lake.	100	Prop 50	0.0	Deny
- Supports continued evaluation of the feasibility of in-Delta storage.	2,000	Prop 50	0.0	Deny
- Supports a contract with Contra Costa Water District and state staff to evaluate the feasibility of enlarging Los Vaqueros reservoir.	3,200	Prop 50	0.0	Y, with budget bill language
- Supports evaluation of additional upper San Joaquin River Storage.	1,000	Prop 50	0.0	X
- Supports evaluation of common assumptions to help in the evaluation of each of the storage proposals and to make comparisons among them.	1,000	Prop 50	0.0	X
Water Supply Reliability				
- Supports contracts for projects that increase water supply reliability through the planned, coordinated management and use of groundwater and surface water resources.	7,000	Prop 50	0.0	Y, only for ongoing projects

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	Positions	Approve
Conveyance Program				
- Supports the South Delta Hydrodynamic Investigation to continue the second phase of the investigations and to improve understanding of the hydrodynamics of the central and south Delta regions.	1,000	Prop 13	1.3	X
- Supports the evaluation of fish facility improvement alternatives (fish screens) related to the South Delta Fish Facility Improvements program.	800	Prop 13	4.6	Deny
- Supports fish collection, handling, transportation, and release study as part of the Tracy Fish Test Facility Project.	712	Prop 13	3.7	Deny
- Supports design and construction costs for the South Delta Improvements Program permanent operable barriers.	26,600	Prop 13	0.0	Y, Only for final design work
Watershed Program				
- Supports staff and contracts to provide technical assistance and coordination of the state's Watershed program.	857	Prop 50	5.0	Deny
APRIL FINANCE LETTER				
<ul><li>Conveyance Program</li><li>Supports the development of the Frank's tract project.</li></ul>	2,700	Prop 50	3.0	Deny
- Supports the development of the Frank's tract project.	309	State Water Project Funds	0.0	X

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	<b>Positions Approve</b>
Watershed Program			
- Reappropriation of \$830,000 in Proposition 50 bond funds that were not expended in the current year due to position vacancies to continue technical assistance related to the Watershed grant program.		Prop 50	X
- Reverts \$3 million Proposition 50 bond funds that have been shifted to the Department of Conservation and were inadvertently left in the Governor's proposed budget.		Prop 50	X
<ul> <li>Ecosystem Restoration Program</li> <li>Reappropriation of \$500,000 in Proposition 50 bond funds that were not expended due to position vacancies to continue work on the Calaveras River instream structure and fish passage study.</li> </ul>		Prop 50	X
Storage Program			
- Technical correction to eliminate one-time funding (-\$18,996) inadvertently left in the Governor's proposed budget. This error was already reflected in CALFED's numbers so is removed from total for consistency.		Prop 50	0.0 X

**Positions Approve** 

**Fund Source** 

Amount

Activity (\$ in thousands)

	Prop 13	0.0	Y
	Prop 13	0.0	Y
	Prop 13	0.0	Y
	Prop 13	0.0	Y
	•		
	Prop 13	0.0	Y
	1		
\$206,295		175.7	
\$130 <b>57</b> 3		157 9	
	\$206,295 \$130,573	Prop 13  Prop 13  Prop 13  Prop 13	Prop 13 0.0  Prop 13 0.0  Prop 13 0.0  Prop 13 0.0

Staff also recommends that the Subcommittee approve the extension of liquidation period for the following CALFED Conveyance project that was proposed in the May Revision.

 Bay-Delta Multipurpose Water Management Subaccount. The May Revision proposes to extend the liquidation period for \$124,406 in Proposition 13 bond funds from 2002-03 to complete studies on the Delta Cross Channel Re-operation, Through Delta Facility, and Clifton Court Forebay Fish Screen projects for the CALFED Conveyance Program.

Staff recommends that the Subcommittee approve the reversions proposed in the May Revision related to the CALFED program. The Administration indicates that these funds were not expended because projects cost less than projected or the funds were determined to no longer be needed for the projects that they were originally appropriated for. The reversion of these funds makes them available for new projects in the future. The reversions proposed for approval include the following:

			Year
Program/Account	Amount	<b>Fund Source</b>	Appropriated
Bay-Delta Multipurpose Water Management Subaccount	2,775	Prop 13	2001-02
Bay-Delta Multipurpose Water Management Subaccount	11,722	Prop 13	2001-02
Bay-Delta Multipurpose Water Management Subaccount	4,047	Prop 13	2002-03

Total Bay-Delta Multipurpose Water Management \$18,544

			Year
Program/Account	Amount	<b>Fund Source</b>	Appropriated
CALFED Storage Program	12,896	Prop 50	2004-05
Total CALFED Storage Program	\$12,896		

Staff recommends that the Subcommittee re-open the Sacramento Valley Water Management program that was approved at the April 25 meeting of the Subcommittee. Staff recommends that the Subcommittee delete the \$8.5 million in Proposition 204 bond funds proposed for this program, thereby deferring this program while long-term financing of the CALFED program is being evaluated.

# 3870 CALIFORNIA BAY-DELTA AUTHORITY

**Staff Recommendation.** Staff recommends that the Subcommittee approve the following revised CALFED budget for BDA. Activities recommended for approval by the Subcommittee that are different from actions taken on May 9 are marked with a "Y". The Governor's budget numbers have been substantially revised by BDA to reflect actual expenditures proposed in the budget. The figures included for the Governor's budget on the May 9 agenda were incorrect.

Consistent with the recommendation under the Department of Fish and Game staff recommends that the Subcommittee adopt trailer bill language that requires BDA to focus the ecosystem restoration program on restoration of native delta fisheries and anadromous fisheries. Specifically, the Department should redirect funding from projects that primarily benefit terrestrials to focus more resources on native delta fisheries and anadromous fisheries.

Activity (\$ in thousands)	Amount	Fund Source	Positions	Approve
BASE BUDGET	rimount	Tunu Source	1 051110115	пррточе
Oversight and Coordination				
- Supports Bay-Delta Advisory Committee, environmental justice, tribal relations, public outreach, delta improvements package, regional coordination, performance measure development, long-term finance plan development, and other administrative functions. (Amount has been adjusted to reflect actual budgeted amounts per BDA.)	\$6,880	General Fund	43.0	X
<b>Ecosystem Restoration Program</b>				
- Supports monitoring of ecosystem restoration projects. (Amount has been adjusted to reflect actual budgeted amounts per BDA.)	\$246	General Fund	2.0	Y
- Supports contracts for work on various 415 ecosystem restoration projects. (Amount has been adjusted to reflect actual budgeted amounts per BDA.)	\$1,521	Prop 50	0.0	Y
- Supports staff to monitor and manage the work being done on the ecosystem restoration program contracts.	\$523	Prop 50	5.0	X
Conveyance Program Drinking Water Quality Program Environmental Water Account Levee Program Storage Program Watershed Program Water Use Efficiency Program - Supports staff and contracts to monitor projects in all of the programs listed above. (Amounts have been adjusted to reflect actual budgeted amounts per BDA.)	\$1,393	General Fund	6.0	X
- Supports recipient agreements to implement and monitor the Proposal and Solicitation Process for various projects in the programs listed above. (Amounts have been adjusted to reflect actual budgeted amounts per BDA.)	\$838	Prop 50	1.0	Y

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	Positions	Approve
Science Program				
- Supports contracts and positions to support	\$2,945	Prop 50	3.0	Y
the independent science board and technical				
panels. (Amounts have been adjusted to				
reflect actual budgeted amounts per BDA.)				
- Supports contracts to support the independent	\$3	General Fund	0.0	Y
science board and technical panels. (Amounts				
have been adjusted to reflect actual budgeted				
amounts per BDA.)				
BUDGET CHANGE PROPOSALS				
Ecosystem Restoration Program				
- Supports various ecosystem restoration	\$5,074	Prop 204	0.0	Y
projects. These funds were appropriated in				
2002-03, but because of delays and				
cancellations these funds were not expended.				
Conveyance Program				
- Supports scientific monitoring of the Delta	250	Prop 50	0.0	X
Cross Channel, Through-Delta Facility,				
Frank's Tract, South Delta Hydrodynamic and				
Tracy Test Facility investigations.				
APRIL FINANCE LETTER				
<b>Ecosystem Restoration Program</b>				
- Reappropriation of \$54.7 million in				X
Proposition 50 bond funds to support				
contracts and grants for ecosystem restoration				
projects, including the Battlecreek Watershed.				
MAY REVISION				
Science Program				
- Establish 7 limited-term positions to be			7.0	Deny
funded with existing appropriation authority.				
These positions would replace the use of contractors.				
Total Governor's Budget	\$19,673		67.0	
<b>Total Assembly Budget</b>	\$19,673		67.0	

# 3940 STATE WATER RESOURCES CONTROL BOARD

**Staff Recommendation.** Staff recommends that the Subcommittee approve the following revised CALFED budget for SWRCB.

Staff recommends that the Subcommittee redirect the 1.5 positions and \$144,000 from the water rights fund proposed for elimination to other water rights activities at the board.

Activity (\$ in thousands)	Amount	<b>Fund Source</b>	Positions	Approve
BASE BUDGET				
Watershed Program				
- Supports management of grants awarded by the board in past grant cycles.	\$299	Prop 50	3.0	X
<ul> <li>Supports monitoring of project progress on grants awarded by the board in past grant cycles.</li> </ul>	\$82	Prop 13	0.8	X
Water Use Efficiency Program				
<ul> <li>Supports management of water recycling grants awarded by the board in past grant cycles.</li> </ul>	\$888	Prop 50	9.1	X
- Supports management of water recycling grants awarded by the board in past grant cycles and the review and awarding of new grants. Also includes technical outreach and assistance to disadvantaged communities.	\$421	Prop 13	4.2	X
- Funds for water recycling grants.	\$6,413	Prop 13	0.0	Deny
Drinking Water Quality Program				
- Supports management of grants awarded by the board in past grant cycles.	\$130	Prop 50	1.3	X
- Supports management of grants awarded by the board in past grant cycles.	\$82	Prop 13	0.8	X
Water Transfers				
- Supports water transfer activities. (This item was inadvertantly excluded from the May 9 agenda.)	\$144	Water Rights Fund	1.5	Deny
Total Governor's Budget	\$8,459		20.7	
<b>Total Assembly Budget</b>	\$1,902		19.2	

September 16, 2005

Mike Chrisman, Chair and Members California Ocean Protection Council California Resources Agency 1416 Ninth Street, Suite 1311 Sacramento, CA 95814



**Re:** Comments on 6-10-05 Memo from Sam Schuchat to the California Ocean Protection Council entitled "Ocean Protection Council Projects"

Dear Chairman Chrisman and Members of the Council:

On behalf of The Ocean Conservancy's 25,000 California members, I am providing these comments on the "Ocean Protection Council Projects" memo submitted to the Council by Secretary Sam Schuchat. That memo suggested specific categories of projects that should be priorities for action by Ocean Protection Council.

- 1) Support for Ocean Protection Council Priorities In summary, we endorse the recommendations provided by Secretary Schuchat in his memo of 6-10-05, and we urge the Council to adopt the memo as interim Council policy for a period approximately one year. During this year, we urge the Council to consider their mission on a much larger and comprehensive level.
- 2) Proposed Ocean Vision and Long Term Goals Specifically, we urge the Commission to direct their staff to prepare a bold Vision Statement and a set of long-term measurable ocean policy goals to be achieved by the state of California over the next five to ten years. We further urge the Council to direct staff to return to the Council within six months with a draft Vision and Long-term Goals document.

We are providing the Commission with the attached draft Vision and Long-term Goals statement as an example and a summary of the type of policy document that should be developed by Council staff adopted by the Council within the next six to nine months.

We believe the Council has enormous potential to provide visionary and bi-partisan leadership on an integrated, long-term ocean policy that implements the concept of ecosystem-based ocean management. This Council can provide a national model for integrating the ocean related policies of California's many natural resource agencies and bodies and coordinating the priorities of the executive and legislative branches of government.

- 3) Senior Staff and Technical Support For the Council to have the full capacity to provide the necessary statewide vision and coordination, we also urge the Council to consider two actions:
  - 1) Full-time Executive Officer While the council is well served by two very professional senior staff, both of those staff are only able to provide a portion of their time to the Council. We urge the council to consider the hire of a full-time senior level executive officer to provide full-time policy direction and advice to the entire Council.
  - 2) **Scientific Advisory Panel** We also urge the Council to consider the formation of a scientific advisory body to assist the council to develop a vision and goals statement

and to advise to the council on transforming California's ocean management to an integrated, ecosystem-based program.

We welcome the opportunity to discuss these recommendations with you and the Council members at your convenience.

Respectfully,

Warner Chabot

Warner Chabot Vice President The Ocean Conservancy

Attachment: Draft California Ocean Vision Statement and Long-Term Goals

Cc: Ocean Protection Council Members

Brian Baird Sam Schuchat

## Draft: Ocean Vision 2015 - Goals for the Ocean Protection Council

Vision Statement: By 2015, California's coast and ocean ecosystems will be protected, restored to a healthy state, or on a path to restoration, so that the state and nation will reap increased ecological and economic benefits for generations to come.

#### 5-10-Year Goals

## **Ecosystem-based marine life and fisheries management**

### 1. Ocean Ecosystem Management –

Transform California's ocean management system from a focus on single species, sectors, activities or concerns in a fragmented fashion, into one that considers ecosystems, emphasizing protection of ecosystem structure, function and processes, and integration of ecological, social, economic and institutional perspectives.

#### 2. Sustainable Fisheries –

Complete a statewide transition of California's fisheries to ecological sustainability. Adopt fisheries management plans consistent with the Marine Life Management Act (MLMA) for all fisheries.

Have a functioning program for monitoring ecological and socio-economic factors; for data coordination, synthesis and analysis; and for disseminating information to the public and the policy-makers. Utilize evolving technology to track in real time catches and discards at the species level.

### 3. Marine Protected Areas –

Have a complete, functional and monitored statewide network of MPAs, including fully protected no-take marine reserves in California's ocean waters, that is based upon a strong scientific foundation and ensures that the full spectrum of ecosystem services are represented in the network. Have a functioning program for monitoring ecological and socio-economic factors; for data coordination, synthesis and analysis; and for disseminating information to the public and policy-makers.

### 4. Sustainable Aquaculture –

Ensure that any aquaculture industry that develops in state or federal waters that affect California is ecologically viable, with appropriate control to prevent pollution or genetic problems and to achieve rapid removal if problems develop.

Integrate aquaculture into other coastal uses and needs, such as waste treatment from other production processes that otherwise lead to the discharge of pollutants into surface waters.

## **Coastal Water Quality and Pollution**

**5.** Polluted Runoff from development and agriculture - Complete a ten-year phase in of land-use measures and nonpoint source control methods to reduce runoff, including 1) a requirement that all new development attain a post-construction runoff rate equivalent to pre-construction levels, and 2) a requirement that other public, commercial and residential properties reduce current runoff by 50%. California should lead the nation in

- implementing stormwater permitting program to attain water quality goals.
- **6. Water Use** Reduce agriculture water use so that fresh water habitats have adequate water for both juvenile fish and adults. Increase the use of drip water systems to maximize water efficiency.

# **Integrated Coastal Ocean Observing Systems**

- 7. Seafloor mapping Completely map California's 3,300 sq mile seafloor. Designate all key habitats. Make the maps and database accessible to all online to all users. Ensure that California's seabed mapping effort is compatible with furthering the national goal of harmonized and functional national databases. Complete seafloor mapping of state waters, necessary for fisheries management, marine protected area design, and modeling very near-shore currents that affect beach water quality, sediment transport, and coastal erosion management.
- **8.** Ocean Observing Systems Have a fully functional, integrated, statewide ocean observing system coordinated with the national ocean observing system, capable of providing useful information to the full range of the state's ocean resource management concerns.

## **Habitat Restoration**

- **9. Invasive Species** Upon completion of an inventory of coastal and ocean invasive species, reduce annual rate of new introduced invasive species by 75% using proven technologies, education and regulatory measures
- 10. Habitat Restoration Using existing assessments of essential fish habitat, endangered and threatened species habitat and other relevant data designed to assign relative priorities, restore 25% of each of the following: coastal wetlands, seagrass beds, river habitats, and other such habitats to a level that supports stable fisheries, abundant wildlife and economically successful coastal communities by 2015. Develop an inventory of essential coastal wildlife habitat for future protection and restoration.

#### Ocean Education K-12

**11.** Fully implement the California Education and Environment Initiative (AB 1548), Incorporate marine ecology and oceanography into relevant elements of the K-12 educational curriculum.

#### **Ocean Governance**

- **12.** Improve ocean governance in California by restructuring management so that the governance system adopts Ecosystem-Based Management (EBM) by
  - reducing overlapping jurisdictions and creating a system in which all levels of government agencies and NGOs are able to identify their jurisdiction and responsibility on ocean and coastal resources, and
  - creating a framework which integrates these participants when their activities influence one another and affect marine resources.