

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGIONAL BOARD MEETING ON MARCH 24-25, 2005

Prepared on February 23, 2005

ITEM: 27

SUBJECT: Regional Board Vision for the Central Coast, Regional Board Conservation Program, and "Other" Water Quality Issues— Information and Board Discussion

SUMMARY

This item discusses three subjects: 1) An overall water quality vision for the Central Coast Region, 2) the new Regional Board Conservation Program, and 3) "other" water quality issues. We believe it is critical to develop a long-term vision for our Region. We deal with so many issues at any one time that it is easy to forget the bigger picture, or what we are trying to achieve in the long-term. We can do a better job by defining a vision for the future Central Coast landscape and working together to achieve it. The major issues facing our Region are urbanization and agricultural land practices. During the June 2005 Board meeting, staff plans to present some examples of what can be achieved in the real, physical world, a proposed vision for the Central Coast, and a plan to achieve the vision.

This item also discusses the Regional Board Conservation Program. The Conservation Program proposes to direct the Regional Board's enforcement and settlement funds toward the major issues facing our Region, including urbanization, agricultural practices, and protection of critical habitat (habitat that is critical to the protection of water quality).

Finally, "other" water quality issues (informational issues) are discussed pursuant to recent direction from the Board.

DISCUSSION

LONG-TERM VISION

What will the Central Coast Region look like in twenty years? In what condition will our Region be? What will we leave behind for future

generations? The mission of the Regional Water Board, in simple terms, is to protect beneficial uses for future generations. Are we focused on actions that will accomplish our mission? These are questions that we need to ask and answer on a regular basis. We are 100% responsible for how we use our time and energy in our positions with the Regional Board, and for our physical, tangible success, or lack of success.

Currently, the Board and staff sometimes struggle to decide which issues are most important, and we end up going in different directions, or we start-and-stop and change direction while trying to pursue too many issues at once. The Regional Board and its staff need to define a desired future condition, a way to achieve it, and stay on track with regular self-evaluations. A key factor is to honestly measure our success according to tangible, measurable results.

Ultimately, we have two choices. We can protect beneficial uses for future generations in the real world, physical sense, or we can passively preside over and measure the decline of resources. The first option is incredibly challenging and rewarding. The second option is the more common path of least resistance, with a massive, planetary gravitational force that pulls us along.

To actually protect beneficial uses in a tangible, measurable sense requires a conscious effort and a great deal of perseverance. Staff will propose an overall vision, and a way to create it, to the Board in June 2005, at the off-site meeting. Our plan is to have a Regional Board meeting at the Elkhorn Slough Visitor's Center, where we will present examples of what can be achieved in the real,

physical world. We will conduct a field trip in the Elkhorn Slough watershed to view major changes accomplished there as a result of the Board's working relationship with the Elkhorn Slough Foundation. We will then present a proposed vision for the Central Coast Region and a plan to create it.

The main factors that will determine the future condition of our Region are urbanization and agricultural land practices. The most important physical aspect of our Region is "critical habitat." These issues are discussed in more detail in the Regional Board Conservation Program section below. The Conservation Program reflects staff's proposal to focus our efforts and resources on the most important issues.

It is also important to communicate our vision, goals, and objectives to stakeholders, including legislators. We plan to coordinate at least two sessions with legislators in the near future, one in the northern part of our Region and one in the south. The Executive Officer will also meet individually with legislators and other stakeholders on a more regular basis to communicate our vision and our tangible successes. Some of the proposed legislation appears to be based on a misunderstanding of what we do and how we do it. These sessions, and a defined vision, are proactive steps we can take to help ensure we are focused on our mission, and to help others understand our priorities.

CONCLUSION REGARDING THE LONG-TERM VISION

Staff will propose a long-term vision and a plan to create it at the June 2005 Board meeting. We believe it is critical for the Regional Board and its staff to have a common vision for the future condition of the Central Coast Region. The ultimate goal of all our efforts should be the creation of physical changes in the field that result in protection of resources for future generations. Creating this physical change and resource protection will require education, outreach, and working relationships with many organizations and individuals. We fully realize that cultural and social changes are key parts of the overall effort (also discussed in Item No. 26 on this agenda). We have the opportunity and ability to achieve unprecedented, tangible success, and we intend that our work will set the standard by which other efforts are measured.

REGIONAL BOARD CONSERVATION PROGRAM

Regional Board staff presented a new idea to the Board in June of last year: Creation of a Regional Board Conservation Program. The Board directed staff to pursue the idea and bring a Conservation Program outline back for consideration. This item presents a proposed description of the Conservation Program, including a mission statement, goals, objectives for 2005, and background information. The Conservation Program is part of a larger effort to define and create our future Central Coast Region landscape.

Mission Statement

The Regional Board Conservation Program will produce tangible, measurable protection of *critical habitat* for future generations. Critical habitat is that part of the landscape that is essential to protect water quality and beneficial uses of waters of the State, primarily riparian corridors, wetlands, and their buffer zones.

Goals

- Organize and focus the Regional Board's enforcement funds toward long-term protection of critical habitat.
- Integrate permanent protection of critical habitat into our Non-point Source and Storm Water Programs, beginning with high priority watersheds, as defined in the Regional Board's Watershed Management Initiative Chapter (2004). Note however that opportunities to implement actions in the field do not always follow general plans. We will capitalize on important opportunities when they arise.
- Focus on the two major non-point source threats to water quality and beneficial uses: urban sprawl and agriculture land management practices. A very important side effect of urban and agricultural development is use of water in excess of groundwater basin long-term yield, and exacerbation of that problem through high impact development (more impervious surfaces and less recharge) vs. low impact development.
- Measure protection of critical habitat in tangible, physical terms (acres, miles). The increase in the amount of physical area protected is the measure of our success. Examples are physical preservation of critical

habitat, or reaches of streams protected from pollution by implementation of agricultural best management practices or low impact development. We will use the Central Coast Ambient Monitoring Program (and its links with other data sources) to monitor water quality improvements as we increase our rate of successful conservation.

- Leverage the Regional Board's available funds and efforts to the maximum degree possible by forming working relationships with established conservation organizations, municipalities, farm and ranch organizations, and other agencies.

Objectives for 2005

- Establish an account with a local community foundation for the purpose of managing funds from Regional Board enforcement actions, settlements, etc. Use a Memorandum of Agreement with the community foundation to describe the working relationship between the Foundation and the Regional Board. (Currently underway)
- Establish criteria that will direct the use of Regional Board enforcement and settlement funds toward protection of critical habitat in priority watersheds. Incorporate project criteria from the State's Enforcement Policy. (Currently underway)
- Establish working relationships with other organizations to leverage Regional Board efforts. (Currently underway)
- Implement a pilot project in either the Salinas Valley watershed or Santa Maria Valley watershed (or both) to apply permanent best management practices on agricultural lands that are directly tied to permanent protection of critical habitat. This pilot project will focus on establishment and protection of buffer zones. This project (and the lessons learned from the pilot project) will serve as a successful model for the larger Central Coast Region.
- Implement a pilot project to implement state-of-the-art low impact development designs and enhanced best management practices in Santa Maria or Salinas (or both). This project will

include a long-term urban development plan for the City of Salinas or the City of Santa Maria. The project will include hiring leading experts in low impact development and will integrate permanent Best Management Practices, or BMPs for retaining storm water on-site, reducing impervious surfaces, critical habitat buffer zones, and pollution prevention. This project will also serve as a successful model for the larger Central Coast Region. (Initial inquiries underway)

- Draft a Basin Plan Amendment to define the Regional Board Conservation Program, define critical habitat, and establish the protection of critical habitat as a main priority of the Regional Board.
- Provide quarterly reports to the Regional Board regarding progress on these objectives.

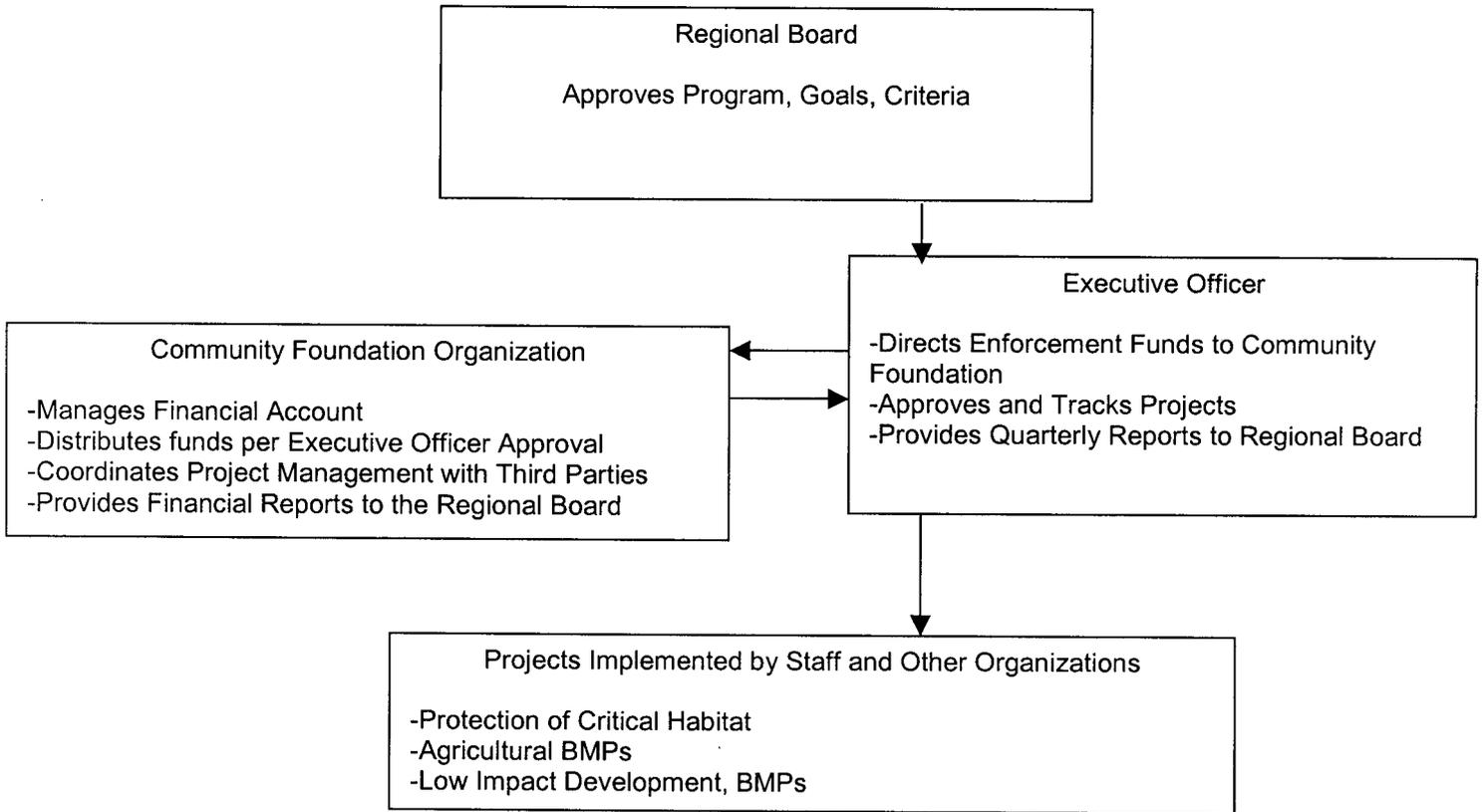
The chart below (page 4) illustrates the Conservation Program and its working elements. The Regional Board establishes the goals of the Program and the criteria for how funds will be used. The Executive Officer approves and tracks projects, and provides regular reports to the Regional Board. The Community Foundation manages the funds and provides financial management and administrative services. Projects are implemented by established, successful third party organizations.

Low Impact Development and Enhanced Storm Water Best Management Practices

The Pew Ocean Commission reports that the major threat to aquatic ecological systems in coastal areas is coastal sprawl, the resulting loss of habitat, and increased pollution. Several relevant scientific reports are available from the Pew Ocean Commissions at: <http://www.pewoceans.org>.

The South Carolina Conservation League prepared a report for the Pew Oceans Commission titled: *Coastal Sprawl: The Effects of Urban Design on Aquatic Ecosystems in the United States*. This report can be found at: http://www.pewoceans.org/oceanfacts/2002/04/12/fact_25649.asp

Diagram of Regional Board Conservation Program



The *Coastal Sprawl* report illustrates that population increases and population migration to coastal areas is increasing at an unprecedented rate. Coastal counties represent approximately 17% of the nation's land area, but are now home to about 50% of the nation's population. The *Coastal Sprawl* report states that by the year 2025, an additional 27 million people will migrate to the nation's coastal areas. The U.S. Census Bureau predicts the population of California will increase from 35.5 million in 2003 to 50 million by the year 2025. This is equivalent to the entire population of the State of New York moving to California. The Central Coast of California is a prime area for major growth due to its abundance of open space and location between the State's two biggest metropolitan areas. Desalination will likely provide the water necessary for this growth.

The *Coastal Sprawl* report states:

"Local governments are not likely to produce watershed plans of their own accord, nor are they likely to coordinate this planning with neighboring jurisdictions...If the country is to successfully implement the land use reforms necessary to protect aquatic ecosystems, the federal government must again use its leverage as regulator and funding allocator to help facilitate change."

This is the premise of the Regional Board's Conservation Program—to facilitate change by using its leverage as a regulatory agency and a source of funding.

The Regional Board regulates water quality over approximately 11,274 square miles of land on the Central Coast. This area includes 2,360 miles of streams, 25,040 acres of lakes, and 378 miles of

Table 1: Population Data for Counties in the Central Coast Region (Basin Plan and Census Data).

<u>County</u>	<u>1970</u>	<u>2003</u>	<u>Percent Increase</u>
Santa Cruz	124,000	251,584	103%
South Santa Clara	29,000	-	
San Benito	18,000	56,300	212%
Monterey	249,000	414,448	66%
San Luis Obispo	107,000	253,118	137%
Santa Barbara	265,000	403,134	52%
Total	792,000	1,444,385	82%

¹Table does not include relatively small populations of portions of Ventura, Kern, and San Mateo Counties that are within the Central Coast Region.

coastline. These resources are under ever increasing pressure as the Central Coast population increases. The Central Coast population has almost doubled since 1970, as shown in Table 1.

As the Central Coast Region's population increases, so does urban sprawl, the amount of impervious surface, pollutant runoff, and loss of open space and rural lands. The solution to this problem is enhanced storm water management and low impact development. Increases in population are also likely to cause increases in litter (including plastics) in our waterways. We discussed some ramifications of plastics in the ocean at our last two Board meetings. We've discussed elimination or reduction of plastics production (minimizing the source) and we discussed the potential for our enhanced storm water efforts to keep trash from being discharged to our waterways. Attachment 1 provides additional information on plastics in the ocean.

The Regional Board's Conservation Program will implement a pilot program to demonstrate the feasibility and effectiveness of enhanced storm water management practices and low impact development in addressing these major issues. The pilot project will be a model development that implements state of the art design, and will serve as an example to other cities. The design elements will become part of that city's Storm Water Management Plan.

Agricultural Land Management Practices

The Central Coast Region has approximately 430,000 acres of cropland under irrigation among 2,500 farming operations (Conditional Waiver Order No. R3-2004-0117). There are also approximately 3.2 million acres of grazing land in the Central Coast Region (CA Department of Conservation, 2002). This area represents thousands of miles of streams and rivers. Agricultural land management practices are therefore critical to the long-term protection of water quality beneficial uses on the Central Coast. A major first step toward agricultural land use practices is the Regional Board Conditional Waiver Order No. R3-2004-0117 (Ag Waiver). The Ag Waiver emphasizes the submittal of farm plans, which include best management practices, and monitoring of water quality. The next step is to implement best management practices that protect water quality and critical habitat. The Regional Board Conservation Program will implement a pilot project to demonstrate best management practices, including buffer zones between agricultural lands and streams and rivers. This project will serve as a model for other farms or ranches on the Central Coast. Eventually, best management practices and buffer zones will be applied on a Regional scale.

Buffer Zones

Buffer zones are one of the most effective tools available for protecting critical habitat and water quality. The Natural Resources Conservation

Service provides substantial information on the research associated with water quality buffer zones and their benefits. A standard rule of thumb is that water quality buffer zones should be 30 to 90 feet wide, varying directly with slope. This information can be found at:

<http://www.nrcs.usda.gov/feature/buffers/>

Buffers zones slow water runoff, trap sediment, and enhance infiltration within the buffer. Buffers also trap fertilizers, pesticides, pathogens, and heavy metals, and they reduce wind erosion. If properly installed and maintained, they have the capacity to:

- remove up to 50 percent or more of nutrients and pesticides
- remove up to 60 percent or more of certain pathogens
- remove up to 75 percent or more of sediment

Conservation buffers help stabilize a stream and reduce its water temperature. Buffers are also source of food, nesting cover, and shelter for many wildlife species. Buffers provide connecting corridors that enable wildlife to move safely from one habitat area to another. Buffers also offer a setback distance for agricultural chemical use from water sources.

Traditionally, we have tried to manage riparian corridors using a "water quality objective" approach via our Basin Plan, which is based on defining acceptable numerical or narrative limits for specific water quality parameters. However, this approach is limited because it does not describe the overall physical habitat that must exist to achieve water quality objectives. We cannot separate riparian corridor habitat and appropriate buffer zones from water quality. The Conservation Program will address this issue by drafting a Basin Plan amendment that defines critical habitat, including buffer zones, in terms of water quality and physical habitat parameters.

Funding

The Regional Board Conservation Program projects will be funded via enforcement actions, settlements, and matching funds from other organizations. Funds will be leveraged to the maximum extent possible. The Regional Board

will determine the criteria for how the funds are spent (types of projects), which will then allow projects to be implemented quickly when opportunities arise. Many dischargers have expressed the need for this type of mechanism, which allows efficient resolution of enforcement actions and relieves the discharger of much of the burden of coming up with project ideas and implementing projects (although such dischargers would still be ultimately responsible for project completion).

CONSERVATION PROGRAM CONCLUSION

Staff looks forward to Regional Board feedback on the above plan and will proceed as indicated above and as directed by the Board. We will provide quarterly updates for the Board on our progress.

OTHER WATER QUALITY ISSUES

During the December 2004 Regional Board meeting, the Board discussed action items versus information items. Action items deal with the important issues facing our Region, as discussed above. Information items are for general discussion. The Board directed staff to periodically provide brief summaries of general water quality issues (a few paragraphs). Attachment 2 is a brief write-up on some of the informational water quality issues listed in our staff report in December. We will provide similar information on the remaining items, and other emerging water quality issues at subsequent meetings.

RECOMMENDATION

Unless directed otherwise, staff will proceed with development of a vision and plan to achieve it for the June meeting. We will also provide updates on the Regional Board Conservation Program every other Board meeting.

ATTACHMENTS

1. Waste Plastics Follow-Up
2. Informational Water Quality Issues

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