



CALIFORNIA

# Water Boards

STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS

**D R A F T**

## **Strategic Plan Update 2008-2012**

November 30, 2007 Draft

## **Foreword**

*This document is intended to facilitate discussion at the Water Quality Coordinating Committee (WQCC) meeting that will be held in Sacramento, California, on December 10-11, 2007 and the various staff input opportunities that are scheduled around the State during late November and December 2007. For more information on the WQCC meeting, please go to:*

*<http://www.waterboards.ca.gov/wksmtgs/2007/schedule.html> and scroll to December business. The updates reflected in this November 26, 2007 revision include comment received via the Internet plus changes suggested by the Water Boards' membership around the State. Due to time constraints, recent suggested changes to the Groundwater priority submitted by the Central Valley Regional Water Quality Control Board have been appended to the original goal/objective/action language. We welcome your input on both approaches.*

*As noted in the previous draft, the **proposed** goals, objectives, and actions (**proposed** goals) contained in this document were developed based on the input received at all of the various stakeholder forums held to inform the Water Boards on priorities for this strategic planning cycle. This update of the Water Boards' Strategic Plan (Update) is intended to cover the years 2008 - 2012. Beginning in calendar year 2008, the Water Boards will initiate an annual assessment of progress to date under the goals, objectives, and actions of this update. This annual assessment will be used to identify any changes necessary to make the plan current and reflect lessons learned.*

*The input generated for this Update was extensive, including: a multi-day, statewide stakeholder summit; a statewide staff summit; and 10 Regional Public Forums designed to solicit local input and trends. All of*

*this input is summarized in "Water Boards Strategic Planning: Summary of Stakeholder Input" and can be found at <http://www.waterboards.ca.gov/strategicplan/2007update.html>.*

*This update recognizes the dual importance of both our programmatic and organizational priorities at the Water Boards. The format used for the proposed priorities includes a high-level description of each priority (Issue Statement), while the **proposed** goals reflect what we can realistically accomplish within our existing legal framework and resources.*

*Based on input to be provided at the December WQCC meeting, the proposed January 16, 2008 public workshop (see below), and public comments, the **proposed** goals will be revised and performance measures will be developed based upon the revised goals.*

*The content of the Update, upon completion, is outlined under the Table of Contents; the specific sections that are included in this discussion document are indicated.*

#### *Other Opportunities for Public Comment*

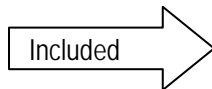
*On January 16, 2008, the State Water Board will be holding a workshop to hear comments and suggestions regarding the **proposed** goals as an item at its regularly scheduled Board meeting. More information on this meeting will be available in the early part of December 2007. Comment on the **proposed** goals will be accepted continuously through the close of the comment period associated with the public workshop.*

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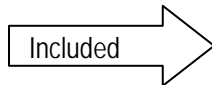


**Mission Statement**

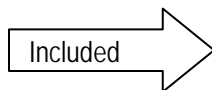
**Organization Description**



**Vision**

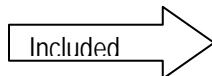


**Principles and Values**

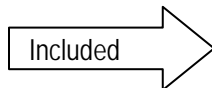


**Desired Conditions**

**Overarching Framework**



**Strategic Program Priorities**



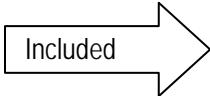
**Strategic Organizational Priorities [new]**

**Plan for Monitoring and Tracking Performance**

**Resource Assumptions**

**Appendices**

- 1. Internal/External Assessment Summary**
- 2. Methodology**

*Drafts of the sections indicated by this arrow*  *are included in this document.*

## California Water Boards' Strategic Plan Update – 2008-2012

### **Mission** *[unchanged from 2001 Strategic Plan]*

To preserve, enhance, and restore the quality of California's water resources, and ensure their proper allocation and efficient use, for the benefit of present and future generations.

### **Vision** *[unchanged from 2001 Strategic Plan]*

A sustainable California made possible by clean water and water availability for both human uses and environmental resource protection.

### **Principles and Values** *[new]*

Protection: We take actions and make decisions that ensure the protection, restoration, and enhancement of the public trust resources and beneficial uses of California's waters.

Integrity: We strive to earn the trust and respect of those we serve through commitment to truth, transparency, accountability, sound science in decision-making, and fairness, including a commitment to environmental justice.

Professionalism: We provide training and professional development opportunities for our staff and Board Members, support a work environment in which a highly capable staff can be innovative, and actively recruit, hire, and retain employees that further the Boards' mission.

Leadership: We strive to be a national and international leader in innovative approaches to water resource protection, and actively engage in collaborative partnerships to leverage funding, seek mutual solutions, and share information.

Collaboration: We seek mutual solutions, including integrated approaches, to complex water challenges through collaboration, cooperation, data sharing, and partnerships within the Water Boards and with other agencies, jurisdictions, stakeholders, and the public.

Service: We serve the public as a whole through timely, efficient, and results-oriented regulatory approaches and processes, and providing assistance and support, including education and outreach.

Education/Outreach: We promote awareness and knowledge of the value of water resources, the importance of water rights and water quality protection, public engagement in the protection of water resources, and an understanding of the mission of the Water Boards.

**Desired Conditions** *[based on the goals from the 2001 Strategic Plan]*

The Water Boards' and Board organizations are effective, efficient, innovative, responsive, and transparent.

Surface waters are protected for drinking, fishing, swimming, and supporting healthy ecosystems and other beneficial uses, and groundwater is protected for drinking and other beneficial uses.

Water resources are fairly and equitably used and allocated consistent with public trust responsibilities, consideration of water quality and quantity, and the protection of beneficial uses.

The Water Boards, other agencies, organizations, stakeholders, and the public understand and contribute to each other's water resource protection efforts through collaboration, education, and outreach.

Water quality is comprehensively monitored to plan, carry out, and evaluate protection and restoration efforts.

**Strategic Program Priorities** *[new]*

1. Basin Planning
2. Impaired Water Bodies
3. Stream Flows
4. Water Use Efficiency
5. Enforcement Effectiveness
6. Groundwater

**Strategic Organizational Priorities** *[new]*

1. Performance-Based Organization
2. Consistency
3. Organizational Transparency
4. Workforce Capacity

*[These sections are addressed on the following pages.]*

## PROGRAM PRIORITY 1. BASIN PLANNING

Basin Plans are consistently organized by 2012, and updated by 2015, to provide a clear structure that identifies beneficial uses, water quality objectives, goals for watersheds, plans for achieving those goals, and monitoring to inform and adjust the plans.

### Issue Statement

#### Issue Summary

Regional Water Quality Control Plans (Basin Plans) are the cornerstone of California's regulatory programs to protect water quality. These plans describe: the beneficial uses that each water body supports, including drinking, swimming, fishing, and agricultural irrigation; the water quality objectives to protect those uses; and the actions needed to achieve the objectives, such as waste discharge permits and enforcement actions.

The Basin Plans, originally written in the 1970s and partially updated in 1994, currently do not reflect the scope of changes in population, land use, pollution, hydrology, and other pressures that have intensified in the last decade and that are projected to increase substantially in the next several decades. These pressures affect the quality of the waters that we drink, the ecosystems that the waters support, and natural resources that we rely upon and enjoy. Additionally, these plans do not include much detail on groundwater resources while groundwater is becoming a more important component of the State's water use plans.

Since the 1994 update, the Basin Plans have been independently and periodically modified to reflect specific changes and local concerns of each region. These Basin Plan amendments are resource and time intensive, and are generally constrained to specific, identified needs rather than a comprehensive review and update that considers new science, new water quality problems, new or changed laws, or needed emphasis on watershed protection versus a piecemeal programmatic approach.

#### Why this issue is so critical to the Water Boards and to our stakeholders

Because the Basin Plans contain the beneficial uses and objectives for protection of water bodies, and are the key basis for our regulatory actions, outdated and inadequate plan information has led to the current pattern of excessively long permit negotiations, appeals, remands, and litigation. Among the high priority issues in which critical information is needed is developing appropriate guidance on effluent-dominated water bodies and agriculturally-dominated water bodies. Inadequate Basin Plans also result in delays of major needed regulatory activities, timely issuance of permits, and achievement of water quality objectives, as well as possible inconsistent or inequitable application of regulatory approaches.

### Long-range approaches to managing the problem

To better address the existing and emerging challenges of water quality control, we envision a comprehensive, statewide update of the Basin Plans that more fully considers what is needed and what the priorities are for each watershed. Land use planning, stormwater permits, agricultural regulation, grazing, water quality certification of fill and dredged material discharges, wetlands and riparian habitat restoration, and groundwater must all be part of this approach. With a consideration of these factors, as appropriate, several key areas in need of update in Basin Plans have been identified, including:

- Incorporating ongoing changes in State and federal laws;
- Reevaluating and refining beneficial uses, where needed;
- Establishing biological objectives and designating tiered aquatic life uses;
- Establishing numeric objectives for groundwater;
- Revising numeric objectives to ensure appropriate limits are used in developing permits;
- Addressing emerging pollutants;
- Developing long-term salt management plans for protection of surface and groundwater; and
- Using watershed, stream, and wetland restoration, low impact development (or hydromodification, sustainable land use, etc.), and “green” stormwater projects as practical means to achieve objectives and protect beneficial uses

### What the Water Boards can realistically do in the next five years

To address issues of outdated and inconsistently formatted Basin Plans, we will initiate a collaborative process to bring all of the Basin Plans up-to-date in a format that is clear, useful to all users, and allows for more efficient future amendments. The Water Boards will work collaboratively with stakeholders to address water quality issues of mutual concern.

### **Basin Plans/Basin Planning -- Goal, Objectives, and Actions**

**Goal:** Basin Plans are consistently organized by 2012, and updated by 2015, to provide a clear structure that identifies beneficial uses, water quality objectives, goals for watersheds, plans for achieving those goals, and monitoring to inform and adjust the plans.

**Objective:** Organize and conduct collaborative processes to synthesize and assess statewide and regional needs for a statewide Basin Plan update.

**Action:** Immediately initiate planning to convene a statewide stakeholder group in early 2008 that will provide input and advice on defining the scope and approach for future Basin Plan updates. Each Regional Water Board shall



determine the need to convene a group of local interests as an element of this process.

**Action:** Use stakeholder group input and advice to develop a single Basin Plan format to guide future updates statewide so that each plan is consistently organized, understandable, paper- and web-based, and provides a clear point of entry for both the public and dischargers.

**Action:** Use stakeholder group input and advice to develop an accessible user's guide to the Basin Plans to assist Water Board staff, dischargers, and the public in navigating the Basin Plans.

**Action:** Use stakeholder group input and advice to prepare a regulatory compendium to the Basin Plans to assist Water Board staff, dischargers, and the public in locating the State's water quality regulations.

**Objective:** Achieve near-term priority Basin Plan update needs by collaborating in third-party initiated processes that incorporate Water Board requirements and stakeholder interests. An example is the Santa Ana Regional Water Board's Basin Plan amendment with funding assistance from stakeholders.

**Action:** Work with external stakeholders to identify and prioritize opportunities to provide resources to address basin planning issues of mutual concern determined through the regular Triennial Review Process, to update the Basin Plans as required under the federal Clean Water Act.

## PROGRAM PRIORITY 2. IMPAIRED WATER BODIES

By 2012, the Water Boards will complete, and begin implementation of, TMDLs for all 2006-listed impaired water bodies in priority watersheds, and will take other actions as necessary for these water bodies to fully support beneficial uses by 2030.

### Issue Statement

#### Issue Summary

For a water body to support one or more uses, such as drinking, recreation, or aquatic life, the water must first meet certain quality standards. The Clean Water Act requires that we identify water bodies that do not meet water quality standards and bring them into compliance. For these impaired waters, which the Water Boards identify on a Section 303(d) list, we must establish and implement a Total Maximum Daily Load (TMDL) that determines how much pollutant the water body can receive and still meet water quality standards. The TMDL also allocates how much pollutant may be contributed by each source and identifies strategies to meet water quality standards.

The pollutants can be from a single, discrete source (point source), such as a pipe or culvert, or be so diffuse and cover such a wide area that no single, localized source of the pollutant can be identified (non-point source). Overall, there are five steps involved in producing a TMDL: (1) stakeholder involvement; (2) water body assessment; (3) allocation development; (4) implementation plan development; and (5) Basin Plan amendment.

The Water Boards face an enormous challenge to bring impaired waters into attainment. On June 27, 2007, the USEPA approved the final 2006 California Section 303(d) list, which identified 2,240 listings affecting 687 water bodies. (A listing is defined as a water body-pollutant pair and a water body may have more than one listing.) As of July 1, 2007, the Water Boards had spent \$75.5 million to develop 134 TMDL projects that addressed 553 listings.

#### Why this issue is so critical to the Water Boards and to our stakeholders

When waters are impaired, the State is deprived of critical water supplies it needs to support its growing population and vital economy. These shortages of water that support all of its beneficial uses can have broad effects on a wide variety of stakeholders. Water impairments are especially critical today when drought limits water supplies, but they may become more critical in the future as climate change increases its impact on State water supplies.

Implementing a TMDL can have far reaching effects on a watershed and the involved stakeholders. This is because a TMDL must consider all sources and causes of impairment, and allocate responsibility for taking corrective measures. TMDLs are not self-implementing; each typically requires the involvement of several Water Board

regulatory programs to fully achieve its goal. With 134 TMDLs completed and efforts underway to develop the remaining 335 identified projects, the new challenge is effective TMDL implementation.

#### Long-range approaches to managing the problem

In any watershed, the water quality reflects to some degree all activities, anthropogenic (man-made) and naturally occurring, in the upper watershed. Ideally, all pollutants in a watershed would be addressed in a single TMDL and program of implementation. With this approach, a single process would inform dischargers about all of their responsibilities for reducing pollutants.

In some places, even the most stringent TMDL may not be adequate to achieve water quality standards because the water flows are too low. In those cases, impairment may be best addressed by considering how much water is available. (Also see programmatic priority, "Water Rights".)

#### What the Water Boards can realistically do in the next five years

The complex nature of TMDL development and limited staff resources currently prevent the Water Boards from implementing the single TMDL solution. While the science behind each pollutant may be very unique, and the collection and evaluation of the data to arrive at allocations for a myriad of sources very complex, the approaches to implementation may be much more common. The Water Boards will strive to achieve economies of scale and scope by developing master implementation plans that accommodate a wide range of strategies for reducing loads. Development of these plans will incorporate concepts that include implementation measures common to many TMDLs, methods to address multiple pollutants in a single watershed, and template components that can be used to address closely linked pollutants across multiple watersheds. The plans will identify efficient regulatory tools to implement a TMDL, such as adopting a basin plan amendment, issuing a permit, taking enforcement action, or certifying an existing program.

Additionally, more timely and effective use of our regulatory programs may result in a significant improvement in water quality, potentially eliminating the need to develop a TMDL. For example, agricultural regulatory programs that require operators to implement irrigation and nutrient management practices should be able to substantially reduce nitrates in both groundwater and surface water. By taking a region-wide action to control sources from this one land use activity, the TMDL in that watershed may not be needed.

These approaches, combined with other elements of a revised TMDL implementation strategy, will maximize the effectiveness of available TMDL resources. The Water Boards will improve communication with the public, discharger community, and Legislature to increase transparency and clarify roles in successful TMDL implementation. We will also strive to systematically and consistently measure water quality to determine if beneficial uses are being restored.

## **Impaired Water Bodies -- Goal, Objectives, and Actions**

**Goal:** By 2012, the Water Boards will complete, and begin implementation of, TMDLs for all 2006-listed impaired water bodies in priority watersheds, and will take other actions as necessary for these water bodies to fully support beneficial uses by 2030.

**Objective:** Develop and implement a statewide strategy for efficiently preparing, adopting, and implementing TMDLs that result in water bodies meeting water quality standards, focusing first on priority watersheds.

**Action:** Identify priority watersheds based on water issues of highest importance or concern and focus resources on these issues. Watersheds such as the Bay-Delta and Klamath are recognized priorities based on current and on-going efforts by the Water Boards and other agencies.

**Action:** Create a standard, comprehensive TMDL implementation plan format that simplifies overlapping strategies for multiple pollutants and can be easily modified to incorporate additional implementation elements as new TMDLs are adopted.

**Action:** Identify pollutants or groups of pollutants for which TMDLs can be developed and implemented on a watershed, regional or statewide basis.

**Objective:** Develop and implement alternative regional or statewide strategies that result in water bodies meeting water quality standards.

**Action:** Identify implementation strategies with broad application that can be applied through policies and permits to restore water quality, which may eliminate the need to develop a TMDL.

**Action:** When inappropriate listings are identified, take actions to support delisting, such as revising standards when pollutants occur naturally or removing inappropriate designations of beneficial uses.

**Action:** Where full TMDL implementation will not achieve water quality standards without flow augmentation in a given water body, consider water quantity factors in TMDLs and refer to State Water Board for consideration as a water rights issue.

### **PROGRAM PRIORITY 3. STREAM FLOWS**

Work in collaboration with agencies and watershed partners to ensure that adequate flows are available for the protection of fish and wildlife habitat while meeting the need for diversions of water for other uses.

#### **Issue Statement**

##### Issue Summary

As California's population continues to grow, greater demands will be made on the available water supply. To ensure that water is put to the best possible uses while serving the public interest and the environment, the State has had a water rights system in place for many decades. A water right allows water to be diverted from a source and put to beneficial, non-wasteful use. Before issuing a water right, the State Water Board must find that "unappropriated" (unclaimed) water is available to supply the applicant. In making that finding, the State Water Board must take into account, whenever it is in the public interest, the water flows needed to remain in the stream for the protection of other beneficial uses, including fish and wildlife habitat. Water right permits and licenses include terms that not only limit how much and during which season water can be diverted, but also require minimum flows to bypass the point of diversion to protect fish and wildlife habitat. A significant challenge for the State in ensuring that water is fairly and equitably used and allocated is the fact that existing claimed water rights in combination with current permitted water appropriations amount to about five times the average annual surface water supply. Given that disparity, the problem is how to equitably balance the needs of off-stream water rights holders and instream flow requirements.

##### Why this issue is so critical to the Water Boards and to our stakeholders

Differences in rainfall, temperature and stream flow needs for fish and wildlife, navigation, and other public trust uses affect water supply reliability for other water users. The water available for these uses will also be affected by climate change. Warmer air temperatures lead to increases in water demand and possible changes in future hydrologic conditions, including increased water temperatures, reduced Sierra snowpack, earlier snowmelt, and a rise in sea level (with more sea water intrusion). Changes in snowpack and snowmelt result in less natural water storage, and more difficulties managing reservoirs and reservoir releases to maintain river temperatures that are cool enough for anadromous fish. Lower groundwater tables can reduce or eliminate base flow in creeks, severely affecting habitat. The condition of California's fish populations reveals the need for action. Currently, 34 fish species are listed as threatened or endangered in California, including coastal and Central Valley runs of steelhead, spring-run and winter-run Central Valley Chinook salmon, Delta smelt, three species from the Colorado River, and several species from the Klamath Basin and southern deserts. Consequently, to ensure a reliable water supply, California must manage water in ways that protect and restore the environment.

### Long-range approaches to managing the problem

The State Water Board strives to use a collaborative watershed management approach to satisfy competing environmental, land use, and water use interests by taking advantage of opportunities within a watershed, such as cost sharing and coordination of diversions. By participating in a collaborative approach, water users could jointly develop local physical solutions to their watershed-specific problems. For example, instead of the State Water Board and other regulatory agencies attempting to establish and enforce stream flow standards through regulation of individual diversions for new applications or in the context of enforcement actions, water users could agree to collectively manage their diversion schedules so that needed stream flows are maintained at particular points in a stream. They could also share costs associated with developing data and monitoring programs, and work together on projects to improve habitat at the most significant locations in the watershed. Extensive use of this individual watershed approach using coordination and collaboration, however, is currently beyond the State Water Board's resources.

### What the Water Boards can realistically do in the next five years

The California Department of Fish and Game (DFG) has the authority to conduct flow studies on priority streams and to recommend minimum stream flow requirements to the State Water Board. The State Water Board is directed to consider the recommended stream flows when it acts on a water right application. However, minimum stream flows have not yet been developed in many parts of California. To address that problem, Governor Schwarzenegger signed Assembly Bill 2121 in 2004 (Water Code Section 1259.4, referred to as "North Coast Instream Flow Policy"). The legislation requires the State Water Board to adopt principles and guidelines for maintaining stream flows in California's central coast streams in the counties of Marin, Napa, Sonoma, Mendocino, and southern Humboldt. Currently, there are over 250 applications to appropriate water in these central coast streams. The State Water Board will work with the Regional Water Boards and the DFG to develop minimum stream flow standards for priority water bodies. The principles and guidelines, along with estimates of water availability, will enable the State Water Board to determine whether to grant new permits for water rights.

### **Stream Flows -- Goal, Objective, and Actions**

**Goal:** Work in collaboration with agencies and watershed partners to ensure that adequate flows are available for the protection of fish and wildlife habitat while meeting the need for diversions of water for other uses.

**Objective:** Develop and implement standards for minimum stream flows needed to remain in the source for the protection of fish and wildlife habitat.

**Action:** The State and Regional Water Boards will work with the DFG to develop a preliminary list of priority California streams for minimum stream flow standards development by June 2008. The development of the list will take into consideration the streams affected by the North Coast Instream Flow Policy.

**Action:** The State and Regional Water Boards will work with the DFG to develop three minimum stream flow proposals that will be brought before the State Water Board for consideration and possible implementation.

**Action:** For priority streams where minimum flows have been developed and are not being met, determine whether actions are necessary to protect the public trust by preventing waste or unreasonable uses or methods of diversion.

**Action:** The State Water Board and a Regional Water Board will pilot an integrated water quality and water rights watershed management approach in a suitable watershed. This approach will integrate the Regional Water Board's water quality knowledge and data with the State Water Board's water rights permitting considerations and decisions.

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## PROGRAM PRIORITY 4. WATER USE EFFICIENCY

Utilize regulatory approaches that have water quality and supply benefits and, by 2015, increase the water supply available to meet water demands by 750,000 acre feet per year, beyond 2002 levels, through augmentation of water recycling and water conservation and implementation of stormwater management practices.

### Issue Statement

#### Issue Summary

As California's population continues to grow and climate change impacts occur, demand and competition for the State's limited water supplies will increase. Over the past 50 years, we have met much of our increasing water needs primarily through a network of water storage and conveyance facilities, groundwater development and more recently, by emphasizing the gains to be achieved through water use efficiency. Efficiency has traditionally embraced several strategies, including water conservation and recycling of treated municipal wastewater. As we move into the future, we must broaden our definition of efficient water use to include retaining clean stormwater on-site for groundwater recharge and treating and using urban stormwater. Efficiently managing our water is the critical purpose of an integrated watershed management approach that leverages actions among and between: water supply and water quality, flood protection and stormwater management, wastewater and recycled water, and watershed management and habitat protection and restoration. To ensure that present and future generations have sufficient water when and where it is needed, the Water Boards have encouraged water use efficiency practices by: (1) providing funding in the form of grants and loans; (2) conducting, advocating for and funding research; and (3) supporting the updating of Best Management Practices (BMPs) for conservation by urban and agricultural consumers. Based on projections of the 2002 Recycled Water Task Force, as reflected in the California Water Plan Update of 2005, the State has the potential to recycle an additional 1,400,000 to 1,670,000 acre-feet per year of water beyond 2002 levels by the year 2030 (the 2002 recycled water deliveries were 525,000 acre-feet per year). This would be about 23 percent of the available municipal wastewater. Most of our efforts to date have relied upon voluntary participation. However, it is important to recognize that the California Water Code does contain tremendous tools to compel greater conservation and recycling through various permits.

#### Why this issue is so critical to the Water Boards and to our stakeholders

Despite the many positive efforts made to date by State and federal funding agencies to promote and fund water use efficiency projects, the State is struggling to meet its goals as defined in the California Water Plan. For recycled water alone, we will likely not meet the established 2010 goal of 1,000,000 acre-feet per year of recycled water use. Stakeholders are concerned about how we are going to take advantage of recycling opportunities for stormwater, one of the largest contributors to pollution, and how increasing municipal wastewater recycling can occur without adverse economic



impacts. There is also broad-based skepticism about the State's ability to manage our water supply and reliability needs while maintaining our commitment of environmental stewardship.

#### Long-range approaches to managing the problem

The implementation of a comprehensive water use efficiency strategy would leverage the authorities and expertise of all agencies with responsibility for water management in the State. One step is to prioritize and target available funding. (It is estimated that \$300 million annually in grants and low interest loans would be necessary to achieve the additional 1,400,000 to 1,670,000 acre-feet per year of recycled water potential by the year 2030.) In addition, a continuum of incentives could be developed to maximize water efficiencies, with clear triggers signaling a transition from voluntary to mandatory conditions. Also, as our water imbalance grows, water supply augmentation projects will become more expensive and less tenable, and recycled water projects will become more economical and practical.

Achieving our recycled water potential also would require greater public acceptance and confidence that the use of recycled water is safe for purposes such as indirect potable reuse and irrigation of edible crops. In many instances, recycled municipal wastewater is a lower risk in terms of pathogens than irrigation water from surface water because the former is treated, disinfected, and monitored, while the latter may not have any of those safeguards. The Water Boards should lead and coordinate water quality research and data improvement efforts designed to identify effective technologies and practices for addressing emerging chemicals of concern, salinity management, virus removal, microbiological safety of water used on edible crops, and other environmental concerns. In addition, we must address the economics and effective marketing of recycled water.

#### What the Water Boards can realistically do in the next five years

Methods of reducing or mitigating stormwater runoff provide opportunities to reintroduce the runoff into a usable water supply, or recover, treat, and deliver it directly to meet a water demand. The Central Coast Regional Water Board is leading our efforts to establish an institute that will provide interdisciplinary technical expertise in support of low-impact and other sustainable development techniques. The institute will promote education and leverage funding for research and implementation. The Water Boards can also impose methods of stormwater management that will augment water supply in conjunction with other water use efficiency methods, such as conservation. Similarly, we can use our permit authority to compel municipal waste water treatment plants to include water recycling as a part of their management of wastewater to meet discharge standards. For example, an underused feature of the State's water rights law includes conservation mandates that can be implemented and enforced through water rights permits.

## **Water Use Efficiency -- Goal, Objectives, and Actions**

**Goal:** Utilize regulatory approaches that have water quality and supply benefits and, by 2015, increase the water supply available to meet water demands by 750,000 acre feet per year, beyond 2002 levels, through augmentation of water recycling and water conservation and implementation of stormwater management practices.

**Objective:** Increase water recycling by focusing on flows that would otherwise be discharged to water bodies from which the water cannot be recovered.

**Action:** Require the development of Water Recycling Plans for wastewater treatment plants and prioritize implementation of the plans for those plants that discharge to water bodies from which the water cannot be recovered within each facility's upcoming permitting cycle.

**Objective:** Control urban runoff volume and reduce pollutant loadings to receiving waters by reducing, capturing, treating, and reusing urban runoff and non-point source flows.

**Action:** Develop and require standard urban runoff reduction measures, including infiltration, low-impact development (LID) techniques, capture, treatment, and use of stormwater, and appropriate monitoring requirements to be incorporated into urban stormwater permits.

**Action:** Facilitate the establishment of a Low-Impact Development Institute that will provide expertise that can be tailored to the needs of California's watersheds and communities. The Institute pilot project will be established in the Central Coast region to take advantage of unique coastal resources and expertise.

**Objective:** In collaboration with others, promote implementation of best management practices (BMPs) for water conservation.

**Action:** Work with the CALFED agencies, California Urban Water Conservation Council (CUWCC), Agricultural Water Management Council (AWMC), and other stakeholders to assess and update urban BMPs and efficient water management practices (EWMPs) for agriculture, as appropriate.

**Action:** Work with the Department of Water Resources to ensure effective implementation by urban water suppliers of water demand management measures required as a condition for receiving financial assistance, and to take action, where appropriate, to limit waste and unreasonable use of water.

**Objective:** Build a local framework for adaptive management for sustainability – focusing on carbon neutrality, the resiliency of energy and water infrastructure, and ecosystem viability.

**Action:** Identify and describe the connections between water quality and climate change on the coast from central California to the Oregon border to better understand the effect of climate change on the region's resources and water infrastructure. Identify and prioritize actions that can help reduce greenhouse gases and solve the problems created by climate change.

**Action:** Create incentives in the water quality program to conserve and recycle, including incentives for stormwater permits that encourage cities and counties to implement LID/Smart growth.

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## PROGRAM PRIORITY 5. ENFORCEMENT EFFECTIVENESS

By 2012, improve the consistency, efficiency, and effectiveness of our enforcement efforts through enforcement prioritization, permit enforceability, leveraged inspection resources, and liability assessment.

### Issue Statement

#### Issue Summary

A critical piece of the Water Boards' regulatory program is enforcement. An effective enforcement program will bring violators into compliance and helps to deter future violations, prevent pollution from occurring, achieve prompt cleanup and correction of existing pollution problems, and protect downstream water users and the environment. The Water Boards' water quality enforcement program is intended to promote compliance through an integrated system of actions. These actions include: compliance assistance; inspections; discharger monitoring report reviews; investigations of complaints; formal and informal enforcement actions; coordination with other law enforcement agencies; and monitoring and reporting the effectiveness of the State and Regional Water Boards' actions. Several aspects of the enforcement effort require ongoing attention. The first is consistency in enforcement decisions and actions across the State. This issue relates to the degree of flexibility that Regional Water Boards should exercise in responding to local conditions balanced against the expectation of the public and the regulated community that uniform procedures and approaches will be used by all the Water Boards so that they are fair and predictable. The second issue is the ability of the Water Boards' enforcement staff to efficiently pursue enforcement actions with existing resources. The third issue is the effectiveness of the enforcement action in achieving compliance. Lastly is the adequacy of our data that will allow an objective evaluation as to whether our enforcement program is addressing all of these issues. While the Water Boards have numerous statutory obligations to report on certain enforcement outputs, we also intend to use performance outcomes as a measure of our effectiveness.

#### Why this issue is so critical to the Water Boards and to our stakeholders

Enforcement not only helps to protect public health and the environment, but also helps to create an "even playing field," ensuring that dischargers and water users who comply with the law are not placed at a competitive disadvantage by those who do not. Consistency in enforcement of the State's water quality laws has been named by stakeholders and the Legislature as one of the most important issues facing the Water Boards. The lack of data demonstrating compliance with and enforcement of water quality standards has been a key criticism of our enforcement program. Without information on the efficiency and effectiveness of our compliance and enforcement efforts, resources cannot be targeted to the areas of greatest need.

### Long-range approaches to managing the problem

Successful enforcement discourages violation of the law. To maximize the deterrent effect of enforcement and instill public confidence, every violation should be met with some form of meaningful response from the Water Board and significant violations should all be addressed by formal enforcement action. The approach for the response should be consistent from region to region. Standard responses for the type, frequency, and severity of violations will need to be consistently implemented and the staffing levels to support a comprehensive enforcement program will need to be increased. The remedies imposed by formal enforcement actions, including penalties, should be consistently imposed across the regions and be sufficiently high so as to have a meaningful deterrent effect. The data that the Water Boards track on both compliance and enforcement efforts should inform the Water Boards whether and/or how enforcement strategies are having an impact on noncompliance. The data should also give the Water Boards a measure by which to tailor enforcement strategies, enforcement targets, and the use of enforcement tools to obtain successful and long-term enforcement outcomes.

### What the Water Boards can realistically do in the next five years

Based upon our current structure and resource constraints, our commitment to enforcement must first be demonstrated by giving the public and those we regulate the information they need to monitor our progress and become proactive stewards of the environment. Second, careful prioritization of enforcement targets will enable us to make better use of limited State resources and focus on areas of greatest environmental need. Third, the Water Boards can create an even playing field through consistent application of enforcement statewide with an emphasis on deterrence of future non-compliance through liability assessments in formal enforcement actions that eliminate, at a minimum, any economic gain from noncompliance.

### **Enforcement Effectiveness -- Goal, Objectives, and Actions**

**Goal:** By 2012, improve the consistency, efficiency and effectiveness of our enforcement efforts through enforcement prioritization, permit enforceability, leveraged inspection resources, and liability assessment.

**Objective:** Implement an updated Water Quality Enforcement Policy statewide by October 2008 to improve the consistency of approach to enforcement and deter future non-compliance.

**Action:** Adopt revisions to the Water Quality Enforcement Policy by July 2008 to ensure, at a minimum, consistent enforcement response and assessment of penalties for all Class 1 Priority Violations, and assessment of liability in excess of the economic gain obtained as a result of non-compliance.

**Action:** Develop core curriculum, to be administered by the Water Boards' Training Academy, for enforcement staff statewide that addresses the Water Quality Enforcement Policy, case development and documentation and the use of templates for enforcement activities.

**Action:** Complete re-organization/re-direction to separate enforcement personnel from permitting staff, and instill internal process for review of draft discharge permits for enforceability.

**Objective:** Beginning in July 2008, increase the number of enforcement actions statewide by improving the efficiency and effectiveness of the Water Boards' enforcement programs.

**Action:** Establish a clear, consistent approach to prioritization of enforcement targets statewide, based on the threats and adverse impacts to beneficial uses, including the identification of Class I Priority Violations.

**Action:** Develop uniform hearing procedures for contested enforcement matters, and templates for enforcement activities, including but not limited to subpoenas, administrative discovery, and investigation reports.

**Action:** Reduce the backlog of facilities required to be addressed with mandatory minimum penalties by 20 percent annually beginning in calendar year 2009.

**Action:** Develop partnerships with other agencies that have environmental, regulatory enforcement authority to address emerging threats to water quality with pilot enforcement programs and other innovative approaches. Pilot projects will initially be focused on the Central Valley region to deter non-compliance with the Irrigated Lands Regulatory Program and, in collaboration with the DFG, on the Los Angeles region.

**Objective:** Measure and report on the effectiveness of the Water Boards' compliance and enforcement programs beginning in January 2008.

**Action:** Continuously evaluate the results of the Water Boards' enforcement activities by adopting meaningful performance measures that will be used to assess the impacts of our compliance and enforcement efforts.

**Action:** Develop an annual web-based public report on our enforcement activities, in addition to those that are legislatively mandated, that tracks performance measures, reports on enforcement activities, and allows the Water Boards to adjust enforcement priorities for the coming year.

## PROGRAM PRIORITY 6. GROUNDWATER

Protect and/or improve groundwater quality through effective regulation and enforcement, and promote effective local management of groundwater resources.

### Issue Statement

#### Issue Summary

Saltwater intrusion, land subsidence, and groundwater pollution have impacted or impaired portions of many groundwater basins throughout the State, making their use for drinking water or for additional storage and supply a particular challenge. Groundwater pollution in particular has resulted from discharges of agricultural, municipal, and industrial contaminants, and requires treatment to render it safe for consumption.

The State Water Board has implemented a set of legislatively mandated programs to protect groundwater quality which includes four elements: (1) prevention of release of hazardous substances through prescriptive containment standards at waste disposal sites; (2) clean up of sites where hazardous substances have been released; (3) permitting programs for ongoing discharges of waste to groundwater, such as treated municipal waste; and (4) focused groundwater monitoring at both permitted or cleanup sites and ambient groundwater monitoring to assess regional groundwater quality. Despite these programs, groundwater quality is poor in many areas due to diffuse sources and other activities associated with urban, agricultural and industrial sources that have not been rigorously regulated by the Water Boards in the past. Intensive human activities always bring large salt and nutrient loads into an area. Some of these loads are intentionally applied to the soil and some are incidentally discharged to the soil, but in the end they cause groundwater degradation. Additionally, urban and agricultural chemical use results in a small fraction of these chemicals ending up in the groundwater, either through carelessness or intentional, unlawful discharge.

#### Why this issue so critical to the Water Boards and to our stakeholders

Global warming, drought conditions, concerns regarding the long-term viability of the Delta for drinking water supply, increased attention to restoring habitat, water bodies ecologically impacted by water diversions, and current growth projections have all contributed to the increased importance and reliance on groundwater for drinking and other beneficial uses. The threat of prolonged droughts forecast the need for additional groundwater storage to capture precipitation runoff. It is broadly recognized that restoration of polluted groundwater aquifers will be a challenge at best. Continuation of intensive land uses, such as urbanization and agriculture, which result in discharges to land, will result in degradation of groundwater in the long term even with the most effective management practices. Protecting the remaining critical groundwater aquifers, therefore, is one of the most important challenges facing us in ensuring both water supply and public health.

### Long-range approaches to managing the problem

The State can slow the rate of groundwater degradation and improve the quality of groundwater by improving and enforcing existing regulatory programs, expanding regulatory programs, mandating and enforcing comprehensive nutrient and salt management programs, and implementing cleanup and remediation activities where needed. Education programs may also be effective in slowing groundwater degradation.

Comprehensive groundwater management, coupled with sustainable land use that limits percolation of contaminants while maximizing percolation of cleaner water and regulation of controllable discharges, is one long-term solution to groundwater degradation due to intensive land use. A compelling need exists for the development of comprehensive salt management plans for those California water basins where increasing water salinity threatens beneficial uses. This effort must be sensitive to the requirement to protect California's waters and other environments, and the necessity to maintain an economically viable California economy. However, considering the long-term nature of some sources of degradation (e.g., decades of excessive fertilization) and the slow rate of water and contaminant movement in the ground, wellhead treatment may be needed in some cases, especially on an interim basis, as an element of a basin's management, or alternative drinking water supplies found.

Groundwater management generally requires that a legally formed entity subject to regulation be assigned responsibility for management of the resource. The duties of this entity would be to ensure that extractions, inflows, pollutant inputs, and pollutant outputs result in a sustainable situation that protects beneficial uses. These responsibilities must be based on a comprehensive data system that recognizes the influences on both surface and groundwater, and that collects and makes available all groundwater data maintained by State agencies and others, as appropriate.

### What the Water Boards can realistically do

In addition to the four program elements that are the cornerstone of the Water Board's current efforts, in its Bulletin 118 2003 update, the Department of Water Resources identified individual groundwater basins and sub-basins throughout the State that serve, or could serve, as sources of high quality drinking water. Bulletin 118 also summarizes approaches and tools available for local groundwater management. Within this framework, the State and Regional Water Boards can play an important leadership role through encouraging, facilitating, and promoting local management of groundwater resources, sharing water quality information with local agencies, and building awareness of important groundwater protection concepts.

Additionally, the Water Boards can leverage the work of the California Water Quality Monitoring Council to integrate groundwater data with surface water data and develop comprehensive recommendations for meeting the State's groundwater needs.



Finally, the Water Boards must continue to improve their regulatory function regarding dischargers, both point and non-point, to ensure contaminant discharge rates are protective of groundwater quality, and enhance their capabilities such that we can link water quality and pollutant loading to specific land use activities and physical conditions.

### **Groundwater -- Goal, Objectives, and Actions**

**Goal:** Protect and/or improve groundwater quality through effective regulation and enforcement, and promote effective local management of groundwater resources.

**Objective:** Encourage local entities to develop groundwater management strategies that include groundwater quality protection as a part of their Integrated Regional Water Management Plans for high use groundwater basins.

**Action:** The State Water Board will post a map identifying high use groundwater basins by March 2008.

**Action:** For high use groundwater basins, Regional Water Boards will develop an integrated groundwater protection approach to (1) evaluate and regulate activities that impact or have the potential to impact beneficial uses, and (2) recognize the effects of groundwater and surface water interactions on groundwater quality and quantity. This approach should also encourage and facilitate local management of groundwater resources.

**Action:** For high use basins that continue to experience a decline in water quality, the Regional Water Boards will encourage the development of a local/regional strategy to protect groundwaters, including the impacts of nutrients and salts contained in or resulting from irrigation waters to agriculture lands.

**Action:** For high use basins where the decline in groundwater quality is due to the irrigation of agricultural lands, the Regional Water Boards shall regulate irrigated lands to protect groundwater quality.

**Action:** If no local/regional strategy has been developed by 2012, and a Regional Water Board concludes that limits on extractions are appropriate to improve groundwater quality, the Regional Water Board shall request that the State Water Board initiate a groundwater adjudication, in accordance with Water Code Section 2100, to protect the quality of the groundwater.

**Objective:** Lead in the development and promotion of outstanding groundwater protection educational programs focused on dischargers and others whose actions or discharges may impact groundwater quality.

[Actions to be developed.](#)

**Objective:** Integrate groundwater data with surface water data and develop comprehensive recommendations for meeting the State's groundwater monitoring and database needs, and sharing water quality information with local, state, and federal agencies, and stakeholders.

[Actions to be developed.](#)

**Objective:** Improve the quality of impaired groundwater that serves as primary drinking water sources for communities (high quality/high use).

**Action:** By March 2010, identify all contaminated groundwater that serves as primary drinking water source for communities, and develop a strategy for identifying all impaired groundwaters.

**Action:** Identify and communicate the roles and responsibilities of other State, federal, or local agencies or districts with jurisdictional or vested interests in protecting and improving the quality of impaired groundwaters.

**Action:** Identify funding needs for impaired groundwater cleanup.

**Action:** Immediately require cleanup actions for those groundwaters where responsible parties have been identified under the provision of the California Water Code and cleanup has not already commenced.

**Action:** Upon identification of unregulated dischargers contributing to the degradation of groundwater, implement appropriate enforcement action.

**Objective:** Adopt appropriate regulatory permits or policies in accordance with the California Water Code and the State policy for maintaining high quality waters that are meeting or exceeding existing objectives.

**Action:** Within one year, identify and prioritize discharges, based on their threat to degrade or impair groundwater quality in high use basins.

**Action:** Using the list of prioritized discharges, issue new or revised waste discharge requirements to high priority facilities, as necessary, to protect water quality.

## ORGANIZATIONAL PRIORITY 1. PERFORMANCE-BASED ORGANIZATION

Become a performance-based organization that demonstrates measurable improvements toward protecting the quality of the State's waters and their proper allocation.

### Issue Statement

#### Issue Summary

Performance-based organizations set goals, establish performance measures with targets for those goals, gather data and information to evaluate progress, results, and strategies, and communicate this information to the people who need and want to know. Goal-setting is based on the environmental and organizational problems we want to solve. Because the Water Boards do not have the resources to address all problems, we must set priorities to identify where we will focus our attention. We need to establish and use measures of environmental and Water Board performance, along with adequate data and data systems (see organizational priority 3, "Organizational Transparency"), to track progress in meeting our goals and targets, manage and evaluate our programs and activities, and improve efficiencies in work processes. Performance results and strategy evaluations are needed to effectively make any needed adjustments to our goals, strategies, and assignment of resources.

By becoming a performance-based organization, the Water Boards will be better able to demonstrate the importance of protecting water quality and water rights, what we are doing about it, and if we are making a difference. We will be able to better assess program effectiveness, set priorities, allocate resources to the activities that achieve the greatest environmental outcomes, and communicate those results for decision-makers, including the Water Boards and their staff, the Legislature, the regulated community, and the public as a whole.

#### Why this issue is so critical to the Water Boards and to our stakeholders

Performance-based organizations demonstrate results for internal and external stakeholders. By providing information, transparency and accountability is enhanced – accountability for progress towards meeting our mission and goals, for how we spend our limited resources, and for what we do and do not do with those resources. Many stakeholders and our own staff are frustrated with processes that seem overly time-consuming, repetitive, and may not achieve the desired results. A regulatory system that focuses on results contributes to better-informed decisions by the Water Boards, as well as Water Board staff recognition of the contributions of their work.

#### Long-range approaches to managing the problem

In the long-term, the Water Boards will implement a results-based regulatory system throughout their organizations that promote efficiency and effectiveness, organizational and environmental results, and transparency and accountability. Accomplishing this will

require a collaboration of all of the Water Boards, an investment of staff time and resources, and transformation of our organizational culture. The Water Boards should collaborate with public representatives, the scientific community, and other stakeholders to establish specific and realistic goals, and to direct our efforts to those activities that demonstrate the most benefit for California's water resources. This includes identifying programs that are no longer effective or beneficial.

#### What the Water Boards can realistically do in the next five years

With the adoption of this Strategic Plan, goals are established for several programmatic and organizational priorities. In the initial phases of implementation, we will inventory and assess the programs and functions related to these strategic priorities to determine how the resources are allocated and assigned, and what changes might be needed to achieve our goals and objectives. The inventory process will then be extended to the Water Boards' core regulatory programs and other functions.

The Water Boards will develop and post on the Internet a report card that communicates the results of actions taken to achieve the goals and objectives of this Strategic Plan, as well as other water environment information of interest to stakeholders.

To improve performance, we will also evaluate our work processes to reduce processing time and costs, beginning with application processing for water rights, and National Pollutant Discharge Elimination System (NPDES) permits and other waste discharge requirements (WDRs).

#### **Performance-Based Organization -- Goal, Objectives, and Actions**

**Goal:** Become a performance-based organization that demonstrates measurable improvements toward protecting the State's water rights, and the quality of surface waters and groundwaters for beneficial uses.

**Objective:** Establish a baseline of all programs and functions at the Water Boards by December 2008, including where and how resources are assigned, for determining the changes that are needed to improve our effectiveness and efficiency.

**Action:** Inventory the programs and functions at the Water Boards beginning with the enforcement and cleanup programs, followed by the other programmatic priorities in this Strategic Plan, the core regulatory programs, and the remainder of the Water Boards' work.

**Objective:** Implement performance-based plans by 2010 that include goals and priorities, measures with targets, evaluation of strategies, and demonstration of results.

**Action:** Prepare performance-based plans beginning with enforcement, followed by the other programmatic priorities for the Strategic Plan, the core regulatory programs, and the remainder of the Water Boards' work.

**Objective:** Develop a web-based water quality tool (report card) by December 2008, that will communicate to the public the quality of the State's waters, the performance of the Water Boards in protecting those waters, and other Water Board-related issues that affect the public (also see organization priority 3, "Organizational Transparency").

**Action:** Create a portal for the public on the State Water Boards' home page to access water quality information for surface, ground, and coastal waters, and to access a report card on the Water Boards' performance to protect those waters.

**Objective:** Evaluate and reengineer our core business processes to increase efficiency, reduce processing time, and reduce costs.

**Action:** Reengineer and implement streamlined water rights application processing beginning with a comprehensive evaluation of process and timelines by December 2008.

**Action:** Conduct a comprehensive evaluation to reengineer the formats and processes of our permitting programs by December 2009, beginning with the NPDES permit program, that results in a consistent, enforceable permit where violations can be readily identified and enforcement action promptly taken.

**Objective:** Establish mechanisms by June 2009 to recognize exceptional Water Board program performance and to share best practices.

**Action:** Administer an annual Award in Excellence program through the Water Quality Coordinating Committee (WQCC) to highlight Regional Water Boards that have excelled in a particular area through approaches that can be translated to other areas of the State.

**Action:** Establish an on-line clearinghouse of documents by June 2008 to provide opportunities for sharing of best practices, models, and templates that promote consistency and increase efficiencies.

## ORGANIZATIONAL PRIORITY 2. CONSISTENCY

Enhance consistency across the regions, where appropriate, to increase effectiveness and efficiency through the development and sharing of demonstrated or innovative approaches.

### Issue Statement

#### Issue Summary

The Water Boards operate in a dynamic environment and are organized to allow regional variation within a coordinated framework. Individual Water Boards find innovative and creative solutions to meet the challenges that arise. A clear policy framework promotes consistency across regions while allowing for regional variation.

Over the years, some Water Boards' stakeholders have expressed frustration with a lack of consistency among the Boards. For example, stakeholders and the Legislature have named consistency in enforcement of the State's water quality laws as one of the most important issues facing the Water Boards. The public participation process and stormwater regulation are two additional high priority areas identified by stakeholders where consistency has become a key issue. Such concerns have led to recommendations that attempt to "fix" the problem, including legislative proposals. The Water Boards' Water Quality Coordinating Committee (WQCC), a leadership body of the Water Boards, has discussed the consistency issue at some length. As part of that discussion, on October 31, 2006, the WQCC made the following findings:

- Stakeholders engaged with more than one region have reported that some decisions are inconsistent
- Regional Boards exist because some variation is expected and needed to respond to different geography and local conditions
- Consistency on application of law and policy is valuable
- On questions of law and overarching policy, the State Water Board should provide guidance and build a basic policy framework from which the regions can appropriately tailor action
- Water Boards are committed to developing procedures and policies to minimize inappropriate inconsistency

#### Why this issue is so critical to the Water Boards and to our stakeholders

California's diverse geography, landscape, population, social, cultural, and economic context prevent a "one size fits all" approach to managing natural resources. At the same time, consistency can help to ensure that stakeholders understand and work towards achieving water quality goals, and that management outcomes can be evaluated in meaningful ways. Additionally, consistency in procedural areas can lead to process improvements, improved efficiencies, reduced costs, and better outcomes.

Nearly all stakeholders embrace the importance of some variation to address unique regional needs yet want the benefits of consistent interpretation and enforcement of laws, regulations, and policies. Finding this balance is the challenge.

#### Long-range approaches to managing the problem

Long-range approaches mirror those of the five-year goals (below), but increasing in scale. They include communication of effective program and function procedures so they may be applied consistently, a method of continuously assessing core functions so that approaches to consistency are adaptive, and a process to monitor outcomes.

#### What the Water Boards can realistically do in the next five years

In the next five years, the Water Boards will identify areas where consistency is needed, initiate actions to achieve consistency, and ensure that this information is available to the Water Boards and their staff. The Water Boards are also committed to implementing an ongoing review of State and Regional Water Board functions as a tool for continuous internal and external assessment of our programs and actions. The review process will incorporate stakeholder and staff involvement and opportunities for public review. The review will highlight exceptional practices for consideration by other Regional Water Boards and areas of needed improvement. The review function can also be used to evaluate any specific, significant water quality problem that the State Water Board determines to be of statewide concern. The State Water Board will work with the Regional Water Boards to develop and implement action plans for areas of needed improvement.

### **Consistency -- Goal, Objectives, and Actions**

**Goal:** Enhance consistency across the regions, where appropriate, to increase effectiveness and efficiency through the development and sharing of demonstrated or innovative approaches.

**Objective:** Evaluate the current Water Board system and identify improvements to enhance effective and consistent implementation of Water Board policies, and State and federal laws and regulations.

**Action:** Implement policies and/or guidelines, as appropriate, to make more consistent the procedures used by the Water Boards to improve public participation statewide on policies and regulatory actions by December 2008.

**Action:** Develop a statewide stormwater permit for large municipalities by December 2009.

**Action:** Using the stakeholder process, identify on an ongoing basis additional, specific improvements in consistency that will enhance effective and efficient implementation of State and federal laws and regulations, and Water Board policies.

**Action:** Develop a plan to implement a review process at the State Water Board by April 2008 to evaluate each Regional Water Board's and the State Water

Board's performance with respect to statewide consistency, efficiency, and effectiveness, and the appropriate implementation of laws and policies. The plan will include criteria for selection programs for review.

**Action:** By March 2009, complete two reviews for discussion and consideration by the State Water Board.

**Action:** Deliver training to staff on improving consistency in public participation and stormwater regulation through the Training Academy.

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### ORGANIZATIONAL PRIORITY 3. ORGANIZATIONAL TRANSPARENCY

Improve transparency, accountability, and good science through research, and enhanced and accessible data tools and information.

#### Issue Statement

##### Issue Summary

Transparency of information keeps State agencies accountable by giving the public and other stakeholders the ability to monitor what we are doing. Making information available in a publicly accessible manner builds public confidence in both the decision-makers and the science behind the decisions. It also translates to timely delivery of information. Data that is accessible and functional can also enhance the delivery of government services and lead to greater public interest and involvement. Within an organization such as the Water Boards, organizational lines must exist in order to manage resources (funding and people). Generally, these divisions lead to isolation of functions and data. Online availability of information allows an organization to pull its data together, thus breaking down or integrating internal “silos.” In addition to transparency of information developed by the Water Boards, many other State, federal, and local agencies hold the key to data necessary to create a comprehensive picture of California’s water infrastructure and conditions.

##### Why this issue is so critical to the Water Boards and to our stakeholders

An issue for many agencies is once data is made available online, it is often not available in an easily accessible or searchable format. Much of the information provided by the Water Boards has been developed to fulfill specific statutory requirements or gathered in conjunction with a special project, and is not comprehensive or routinely updated. Since data that is available online is generally not provided in useful and flexible formats, the public cannot use this information to answer the questions that mean the most: is the water clean or polluted; is it safe to go to the beach; is it safe to boat or swim in a lake or stream; and is our public drinking water supply (and private wells) safe to drink? The lack of linkages between various types and sources of data also means that the information cannot be compared or easily understood. Within the Water Boards, this also results in redundant, incomplete data systems that are difficult to maintain and update. These data systems lack standardization, are not integrated, and therefore cannot be readily shared. Improvements to the Water Boards’ California Integrated Water Quality System (CIWQS) database are intended to address many of these issues.

Today, impacts to our water quality and water supply resulting from changes in land use, changes in climate, population growth, and other trends has led to the expectation that the Water Boards will collaborate with other agencies to present a comprehensive picture of the health of our watersheds. A fundamental impediment to implementing a more comprehensive watershed approach lies with the limited surface water and

groundwater monitoring data that are available in a form that is accessible and that can be analyzed through specialized software programs. While the Water Boards have been acknowledged for their data collection efforts, such as the Surface Water Ambient Monitoring Program (SWAMP) and the Groundwater Ambient Monitoring Assessment (GAMA) program, there is considerable concern that the necessary steps to integrate and coordinate existing information on groundwater in particular has not progressed.

#### Long-range approaches to managing the problem

The Water Boards believe that the wealth of data that has and is being collected by many federal, State, and local agencies, as well as data generated by other organizations and citizen groups, should be accessible and seamlessly displayed in a comprehensive data network. This collection of data should be organized and spatially displayed allowing regulators, the regulated community, and the public the ability to examine the health of any watershed in the State, identify data gaps, and download data sets for further use or analysis. The process established by Senate Bill 1070 (Kehoe, 2006), which establishes a California Water Quality Monitoring Council, is an excellent approach to resolving problems associated with surface water data availability and use over the long term. The Ground Water Monitoring Act of 2001, which created a comprehensive groundwater program to address these issues, needs to be reinvigorated in order to achieve the same level of integration to provide a comprehensive baseline of groundwater quality and use for each groundwater basin/sub-basin in the State. Full implementation of the recommendations supported by the GAMA program's Public Advisory Committee (PAC) will lead to the establishment of such a baseline to then be used as a reference for local management decisions and basin to basin comparisons, as well as establishing regulatory priorities for surface contaminant cleanup. Ideally, the ability to network and integrate all State water quality information into a comprehensive data set will go a long way towards improving transparency and accountability, as well as providing a basis for decisions and policies.

#### What the Water Boards can realistically do in the next five years

Implementation of the recommendations of the CIWQS' Review Panel will mark a significant milestone in the Water Boards' ability to manage its core regulatory program data. We are committed to making the information contained in this system and other online data systems currently maintained by the Water Boards available in a publicly-accessible and functional format. In addition, we are committed to working with the California Monitoring Council to develop a publicly-accessible, statewide water quality data network.

## **Organizational Transparency -- Goal, Objectives, and Actions**

**Goal:** Improve transparency, accountability, and good science through research, and enhanced and accessible data tools and information.

**Objective:** Enhance the Water Boards' data systems, and the accessibility of water body and facility data and information on the Internet, by December 2009.

**Action:** Implement all of the Review Panel's recommendations for CIWQS. Prioritize the development of quality assurance/quality control (QA/QC) systems by July 2008 to improve data quality and ensure accurate data entry associated with the Water Boards' regulatory programs.

**Action:** Implement the Groundwater Quality Monitoring Act of 2001 (AB 599, Liu) by developing online public reports and query tools, by December 2008.

**Action:** Use on-line mapping technology to present all relevant Water Board data by December 2009.

**Action:** Develop and promote groundwater protection and education programs that integrate all available water quality information.

**Objective:** Implement SB 1070 (Kehoe, 2006) to develop a publicly-accessible, statewide network to comprehensively display all water quality data used for planning and decision-making purposes within the State by January 2010.

**Action:** Work with the California Water Quality Monitoring Council to determine the scope and content of the data network by June 2009.

**Objective:** Identify and prioritize future research needs by December 2008 to guide the allocation of resources of the Water Board, our partners, and other researcher entities

**Action:** Prepare an inventory of completed, ongoing, and proposed Water Board and Water Board-funded research by June 2008.

**Action:** Prepare a research agenda to prioritize and guide funded research by December 2008.

## ORGANIZATIONAL PRIORITY 4. WORKFORCE CAPACITY

Build greater organizational workforce capacity which enables employees to achieve a higher level of performance and promotes sustained employee dedication to the mission of the Water Boards.

### Issue Statement

#### Issue Summary

Building workforce capacity is about assessing the employee resources needed to meet the Water Boards' current and future program requirements and taking the actions to meet these needs. Taking action means to: (1) recruit to fill important vacancies which is especially critical as 36 percent of our rank-and-file employees and over 60 percent of our managers are eligible to retire and we face limited compensation levels; (2) grow leadership capacity and encourage individual advancement; (3) provide direction and guidance for allocating staffing resources; (4) provide a clear rationale for linking expenditures for training, career counseling, and recruiting efforts; and (5) maintain or improve a diversified workforce.

Government agencies, not just the Water Boards, have had an increasingly difficult time attracting and retaining employees. Developing a workforce plan to build our capacity will focus our attention on the emerging challenges we will face to properly staff and train the number of employees that are essential to carry out our mission.

#### Why this issue so critical to the Water Boards and to our stakeholders

The expectations of and the demand for what the Water Boards do is increasing as the State's population continues to grow and we feel the effects of climate change on the quality and quantity of the State's water supply. Based on our recently prepared workforce report, we can be fairly certain that as the demand for our services grows, we will encounter an increased competition for prospective and current employees, and experience an increasing number of employees retiring, which may result in a massive "brain drain." Of importance to the regulated community, turnover in both key rank-and-file staff and management positions can lead to longer processing times, incomplete technical reviews, and redundant approvals. All of these concerns are contributing to apprehension about the Water Boards' ability to fulfill future critical mandates.

#### Long-range approaches to managing the problem

Our focus will be on developing many people with the capacity to fill leadership positions in the organization. We can do this by growing the Water Boards' Leadership Academy, encouraging individual advancement, and providing increased opportunities for employees to accept new challenges. The existing classification systems within State service, especially in the environmental specialties, should be updated to address

overlapping job responsibilities with uneven compensation and to create career paths that do not just move up a specialized ladder, but across the organization.

#### What the Water Boards can realistically do in the next five years

While the State classification structure is influenced by much more than the Water Boards, we can develop the future skills of our employees through job experiences and assignments, and we can engage the leadership of the Water Boards to improve the development of the succession pool of candidates. Opportunities for encouraging cross-program sharing of people and information will be identified.

#### **Workforce Capacity -- Goal, Objectives, and Actions**

**Goal:** Build greater organizational workforce capacity which enables employees to achieve a higher level of performance and promotes sustained employee dedication to the mission of the Water Boards.

**Objective:** Capture and sustain institutional memory and continuity in key positions, including management, technical, and support roles.

**Action:** Evaluate the potential changes that may occur in the employee base and responsibilities of the Water Boards over the next five years, and prepare and implement a Workforce Plan to ensure that the knowledge, skills, and abilities to meet Water Board needs will exist.

**Action:** Create a senior leadership team that is actively engaged in developing a succession management program. This would involve championing the program, working with managers to identify and facilitate development opportunities (both internal and external to the Water Boards), and acting as role models, coaching, and supporting managers through the process.

**Objective:** Attract and retain qualified staff through skill and personal development opportunities.

**Action:** Fully fund the Water Board Training Academy to support the development of the skills and expertise of staff.

**Action:** Enhance recruitment of students and graduates from within the State's own university system by creating strategic partnerships with those universities that both specialize in professional degree programs applicable to the work of the Water Boards and are located near Water Board offices.

**Action:** Develop a rotational program for both rank-and-file and supervisory/managerial classifications to foster inter-program and inter-government collaboration, and to enhance personal development for Water Board employees.