NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD
WATERSHED PLANNING CHAPTER

EXECUTIVE SUMMARY

The water resource protection efforts of the State Water Resources Control Board and the Regional Water Quality Control Boards are guided by a five year Strategic Plan (updated in 2001). A key component of the Strategic Plan is a watershed management approach for water resources protection.

To protect water resources within a watershed context, a mix of point and nonpoint source discharges, ground and surface water interactions, and water quality/water quantity relationships must be considered. These complex relationships present considerable challenges to water resource protection programs. The State and Regional Boards are responding to these challenges with the Watershed Management Initiative (WMI). The WMI is designed to integrate various surface and ground water regulatory programs while promoting cooperative and collaborative efforts within watersheds. It is also designed to focus limited resources on key issues.

Past State and Regional Water Board programs tended to be directed at site-specific problems. This approach was reasonably effective for controlling pollution from point sources. However, with diffuse nonpoint sources of pollutants, a new regulatory strategy was needed. The WMI uses a strategy to draw solutions from all interested parties within a watershed, and to more effectively coordinate and implement measures to control both point and nonpoint sources.

During initial implementation of the WMI, each Regional Board identified the watersheds in their Region, prioritized water quality issues, and developed watershed management strategies. These strategies and the State Board's overall coordinating approach to the WMI are contained in the Integrated Plan for Implementation of the WMI of which this Watershed Planning Chapter is a part.

The Watershed Management Initiative is intended to support the goals in the Strategic Plan:

- The Board's organizations are effective, innovative and responsive
- Surface waters are safe for drinking, fishing, swimming, and support healthy ecosystems and other beneficial uses
- Ground water is safe for drinking and other beneficial uses
- Water resources are fairly and equitably used and allocated consistent with public trust
- Individuals and other stakeholders support our efforts and understand their role in contributing to water quality
- Water quality is comprehensively measured to evaluate protection and restoration efforts.

Most State and Regional Board programs are funding driven and directed at categories of problems. Traditional program management can be near-sighted, focused only on the program goals and outputs without obvious relationships to other problems. Added to the mix are "unfunded mandates," those tasks that are required or requested, but without attendant funding.

Addressing water resource issues on a watershed basis is founded in determining the problems and needs independently of funding sources. In this way the analysis of problems and needs and their prioritization is unencumbered by program constraints. The combination of the pure analysis of needs and relationships in a watershed with programs presents an administrative challenge. In these lean times, priorities by watershed provide a good framework for ensuring that staff and contract resources are applied to the most important issues first.

Addressing problems on a more holistic basis with a collaborative approach involving landowners and other agencies in a watershed represents a new and challenging role for government. The WMI seeks to facilitate solutions from all interested parties in a watershed, and coordinate measures to improve watershed health, and ultimately the beneficial uses of water.

Watershed Management Areas

The North Coast Region, which comprises all basins draining into the Pacific Ocean from the California-Oregon state line (including Lower Klamath Lake and Lost River Basins) south to the southerly boundary of the watershed of the Estero de San Antonio and Stemple Creek in Marin and Sonoma Counties. The North Coast Region covers all of Del Norte, Humboldt, Trinity, and Mendocino Counties, major portions of Siskiyou and Sonoma Counties, and small portions of Glenn, Lake, and Marin Counties. The North Coast Region encompasses a total area of approximately 19,390 square miles, including 340 miles of scenic coastline and remote wilderness areas, as well as urbanized and agricultural areas.

Description of Region

Distinct temperature zones characterize the North Coast Region. Along the coast, the climate is moderate and foggy and the temperature variation is not great. For example, at Eureka, the seasonal variation in temperature has not exceeded an average of 63 F for the period of record. Inland, however, seasonal temperature ranges in excess of 100 F have been recorded.

Precipitation over the North Coast Region is higher than for any other part of California, and damaging floods are a fairly frequent hazard. Particularly devastating floods occurred in the North Coast area in December of 1955, in December of 1964, and in February of 1986. Ample precipitation in combination with the mild climate found over most of the North Coast Region has provided a wealth of fish, wildlife, and scenic resources. The mountainous nature of the Region, with its dense coniferous forests interspersed with grassy or chaparral covered slopes, provides shelter and food for deer, elk, bear, mountain lion, furbearers and many upland bird and mammal species. The numerous streams and rivers of the Region contain anadromous fish, and the reservoirs, although few in number support both coldwater and warm water fish.

Tidelands, and marshes too, are extremely important to many species of waterfowl and shore birds, both for feeding and nesting. Cultivated land and pasturelands also provide supplemental food for many birds. Tideland areas along the north coast provide important habitat for marine invertebrates and nursery areas for forage fish, game fish, and crustaceans. Offshore coastal rocks are used by many species of seabirds as nesting areas and by marine mammals.

Critical Coastal Areas (CCAs) are specially designated land areas of the California coast where state, federal and local government agencies and other stakeholders have agreed to improve degraded water quality or protect exceptional coastal water quality from the impact or threat of nonpoint source pollution, by coordinating expertise and resources. There are twenty-one Critical Coastal Areas in the North Coast Region. See Table 5 in Appendix C for a complete list. Also see the web site http://www.coastal.ca.gov/nps/cca-nps.html for a copy of the CCA Draft Strategic Plan and general background information on the CCA Program.

Major components of the economy are tourism and recreation, telecom and other high technology businesses, logging and timber milling, aggregate mining, commercial and sport fisheries, and agricultural activities including vineyards, wineries, and sheep, beef and dairy production.

Watershed Management Initiative Process

Six watershed management areas (WMAs) are designated in the Region: Klamath River, Trinity River, Humboldt, Eel River, Russian/Bodega, and North Coast Rivers. The WMAs are first assessed and problems, issues and concerns identified using staff and public meetings in the WMA. Goals for each WMA are designated. A strategy to address the objectives and actions for the goals is developed and an implementation phase follows. An evaluation step feeds into the next assessment. In general, the process has improved communication within the office and in some watersheds has improved communication among agencies and the public. Documented in this Chapter are numerous issues and problems as well as ideas to address them.

Water Quality Issues

The North Coast Regional Water Quality Control Board faces numerous water quality issues. Overarching water quality issues in the Region are protection of the coastline, protection and restoration of anadromous fish, protection of drinking water, and pollution prevention. More specifically water quality problems include contamination of surface water due to nonpoint source pollution from storm water runoff, erosion and sedimentation (roads, agriculture, and timber harvest), channel modification, gravel mining and dairies, and MTBE, PCE, and dioxin contamination. Ground water contamination from leaking underground tanks and health and safety issues from contaminated areas that are open to the public are also priority issues. High priority water quality problems due to point sources include chronic violations by some Publicly Owned Treatment Works (POTWs) and lack of permit compliance. Lack of or limited funding for water quality monitoring and watershed assessment compounds the difficulty of addressing these issues.

Highest priority activities in the North Coast Region
(Revised December 2004)

- Implementing TMDLs for sediment in 16 coastal watersheds
- Completing all Klamath Basin TMDLs by December 2005
- Maintaining the core regulatory program for regulated dischargers, including storm water
- Developing a monitoring strategy for the region and integrating SWAMP with TMDL monitoring
- Regulating vineyards and timber activities
- Developing policies for runoff from roads
- Maintaining the ground water cleanup programs for high priority sites
- Improving outreach and community involvement in decisions
- Fostering watershed groups and citizen monitoring
- Protecting Critical Coastal Areas
- Promoting water recycling activities
- Developing a freshwater beach program with the Sonoma County Health Department for the Russian River

See Appendix E for a discussion of water quality priorities.

Organization for WMI
To advance implementation of the WMI the North Coast Region has reorganized along watershed lines. Presently there are five divisions: Timber Harvest Division, Watershed Management Division, Watershed Protection Division, Cleanups and Special Investigations Division, and Administrative Division. In theTimber Harvest Division there are units for the Klamath and Trinity WMAs, Eel River Humboldt Bay WMAs, and the North Coast and Russian/Bodega WMA. The Watershed Management Division is split between a Planning unit and a TMDL development unit. In the Watershed Protection Division are the Eel. Humboldt, Trinity, and Klamath unit, the North Coastal NPS unit, the Russian River unit, the Contracts, Loans, and Special Projects unit, and the SWRCB Small Community Grants unit. The Cleanup Division is split between the Southern and Northern Cleanup units.

To help implement the intended transition to a watershed organization, all programs have been integrated, to the extent possible, along watershed lines. The budget process, planning for permits, inspections and enforcement are largely driven by watershed needs. The creation of watershed divisions was influenced by needs within watersheds and the division of program resources to address those needs.

The North Coast Regional Water Quality Control Board (RWQCB or Regional Water Board) sets staff priorities each fiscal year (FY). Those priorities are generally organized in relation to watershed needs; however; the Regional Water Board will take all factors into account in setting final priorities. Most legislative mandates do not take watershed needs into account. However, the Regional Water Board usually exercises appropriate discretion within programs to assure that resources are applied where needs are the greatest.

Funded versus Unfunded Actions
Where unfunded activities are necessary to protect water quality, the Regional Water Board may use discretionary resources, in a limited fashion, to address those needs. When needs are established the Regional Water Board seeks new resources to address water quality issues. An example is the Regional Water Board's hillside vineyard program. Vineyard activities on hillsides can adversely affected water quality due to sedimentation. In previous years, no program existed to address the issue short of after-the-fact enforcement. Nonpoint source funds were sought and received to address the issue. Now the Regional Water Board has an outreach program to help prevent problems before they happen and enforcement is still available where required.

As the Regional Water Board continues the transition to a watershed-oriented region, the budgeting process will be driven by watershed needs and priorities. Currently, establishing Total Maximum Daily Loads (TMDLs) and other nonpoint source issues are at the forefront. Point source needs also require additional resources, especially in relation to recent legislation that is expected to increase monitoring, inspections and enforcement.

Russian/Bodega WMA
In the Russian/Bodega WMA (pages 13-36) the primary water quality goals focus on protecting beneficial uses of surface and ground water such as salmonid fishery values, recreation, and domestic, municipal and agricultural water supply. Maintaining the core regulatory activities associated with point source waste discharges to surface and ground water from municipal and industrial sites is a high priority and is mandatory. Permitting, compliance inspections, enforcement and cleanup activities are performed on those facilities with the highest threat and/or actual impact on water quality. The program of investigation and follow-up of spills and complaints regarding water quality problems will continue. Discharges of PCE, petroleum hydrocarbons, pesticides, nutrients, bacteria and sediment are the primary pollutants of concern.

Nonpoint source discharges are addressed by the core regulatory program storm water permits and inspections, and by the nonpoint source program (see Appendix B) through timber harvest inspections, outreach, grants, and promoting land management measures that are protective of beneficial uses. Critical Coastal Areas in the Russian/Bodega WMA are: 1) the Bodega Marine Life Refuge, 2) the Estero Americano, and 3) the Estero de San Antonio.

Klamath WMA
In the Klamath WMA (pages 37-54) the following broad goals provide a focus for water quality control activities: 1) protect and enhance the salmonid fishery (Mainstem and tributaries below Iron Gate Dam), 2) protect and enhance coldwater, warmwater and endangered aquatic species, 3) maintain the viability of agriculture and timber uses, 4) maintain recreational opportunities, and 5) protect groundwater uses. The Critical Coastal Area in the Klamath WMA is the Klamath River.

North Coast Rivers WMA
In the North Coast River WMA (pages 55-138) the overall emphasis is the inspection of timber harvest plans for implementation of the Forest Practice Rules and best management practices to ensure protection of water quality and beneficial uses. Through recent budget actions the timber harvest program activities on private land in concert with California Department of Forestry and Fire Protection have been expanded. The future development of a Basin Plan amendment for TMDL waste reduction strategies for sediment is another

primary activity by Regional Board staff. This WMA has been the focus of the multi-agency North Coast Watershed Assessment Program effort.

The Critical Coastal Areas in the North Coast WMA are: 1) Mattole River , 2) King Range National Conservation Area, 3) Pudding Creek, 4) Noyo River, 5) Pigmy Forest Ecological Staircase, 6) Big River, 7) Albion River, 8) Navarro River, 9) Garcia River, 10) Kelpbeds at Saunders Reef, 11) Del Mar Landing Ecological Reserve, and 12) Gerstle Cove.

Humboldt Bay WMA
In the Humboldt Bay WMA (pages 139-160) the following broad goals provide a perspective from which to view the specific goals and actions presented Section 2.4: 1) improve coordination, education, outreach, assessment, and monitoring, 2) protect surface and ground water uses for municipal supply, recreation, and industrial shellfish harvest, and 3) protect and enhance the anadromous salmonid resources. The Critical Coastal Areas in the Humboldt Bay WMA are: 1) Redwood Creek, 2) Redwood National Park, 3) Kelpbeds at Trinidad Head, and 4) Mad River.

Eel River WMA
In general, the primary issues associated with water quality in the Eel River WMA (pages 161-176) are focused on the beneficial uses for drinking water supply, recreation, and the salmonid fishery. Since the watershed is located in steep forested terrain with highly erosive soils and high rainfall, erosion and sediment production and transport are high. For most of the watershed the issues of temperature and sedimentation and their impacts on the salmonid fishery are of high concern, involving the timber and rangeland industries. Other issues include ground water contamination, dairies in the delta area near the ocean, and localized contamination of surface and ground waters. The Critical Coastal Area in the Eel River WMA is the Eel River.

Trinity River WMA
The Trinity River watershed is also located in steep forested terrain with highly erosive soils and high rainfall, erosion and sediment production and transport are high. The issues of temperature and sedimentation and their impacts on the salmonid fishery are of high concern, involving the timber and rangeland industries. The broad goals for this WMA (pages 177-188) include improving the anadromous fishery through sediment reductions and habitat enhancements and maintaining the other high beneficial uses of both surface and ground water.

For more information or copies of the Chapter, contact Janet Blake at 707-576-2805 or jblake@waterboards.ca.gov. Also see http://www.waterboards.ca.gov/northcoast/programs/watersheds.html