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Farm Water Quality Planning

*A Water Quality and
Technical Assistance Program
for California Agriculture*

This REFERENCE SHEET is part of the **Farm Water Quality Planning (FWQP)** series, developed for a short course that provides training for growers of irrigated crops who are interested in implementing water quality protection practices. The short course teaches the basic concepts of watersheds, nonpoint source pollution (NPS), self-assessment techniques, and evaluation techniques. Management goals and practices are presented for a variety of cropping systems.



Reference:

Priority Watersheds

MARY BIANCHI is UCCE Farm Advisor, San Luis Obispo County; **ALISON JONES** is Watershed Management Initiative and Prop 13 Coordinator, Central Coast Regional Quality Control Board; and **JOHN HARPER** is UCCE County Director and Livestock and Natural Resources Advisor, Mendocino County. Map contributed by Alison Jones.

Nonpoint source pollution results when water moves across the landscape and picks up pollutants from roads, parking lots, lawns, agricultural fields, mining areas, construction sites, and other areas. These pollutants are carried into streams, rivers, and ground water, where they affect water quality and the beneficial uses of the waters. Pollutants typically associated with farming include sediments, nutrients, pesticides, metals, and salts.

As a result of a statewide effort to focus on watershed protection, Regional Water Quality Control Boards have designated priority watersheds. In general, priority watersheds have documented water quality problems such as groundwater contamination by nitrates, excessive erosion and sedimentation, or pesticides in surface waters. Regional Boards often focus grant funding and extra staff effort on priority watersheds; however, any contribution of nonpoint source pollution can be considered a discharge, so even if a landowner is not in a priority watershed it is a good idea for him or her to develop a management plan and to control nonpoint source pollution. In addition, Regional Boards have scheduled many impaired water bodies for development of Total Maximum Daily Loads (TMDLs), even though they may not be in priority watersheds.

While regulatory agencies are trying to protect all beneficial uses of water, increased attention is being given to watersheds where nonpoint source pollution reduces the reproduction and survival of cold water fishes, especially salmon, steelhead, and trout. Sediment, heat, and nutrients are the primary pollutants that reduce water quality for these fishes. Almost any commercial land use (mining, forest harvest, crop production, construction, or grazing) can contribute to the sediment, heat, or nutrient load in a water body. Concern about salmon and steelhead populations and habitat has focused the regulators' attention on Salinas, the North Coast watersheds, the Klamath River Basin, and several tributaries to the Sacramento River. Selenium-laden sediment and pathogens are also high priorities in a few watersheds.

PRIORITY WATERSHEDS BY REGION

Region 1 – North Coast

- Russian/Bodega Watershed Management Area
- Lost River and the Klamath River upstream of Iron Gate Dam
- Shasta River and tributaries
- other Klamath River tributaries upstream of Scott River confluence
- Garcia River watershed
- Humboldt Bay Watershed Management Area
- Eel River Watershed Management Area

Region 2 – San Francisco Bay

- Napa River
- Petaluma River
- Tomales Bay
- San Francisquito Creek
- Pescadero and Butano Creeks
- Walnut Creek
- Sonoma Creek
- Novato and Miller Creeks

Region 3 – Central Coast

- Salinas River
- Morro Bay
- San Lorenzo River
- Pajaro River
- Santa Maria River
- Santa Ynez River
- South Coast (Santa Barbara County)

Region 4 – Los Angeles

- Calleguas Creek
- Ventura River

Region 5 – Central Valley

- Lower Sacramento River watershed (Sacramento area, downstream of Keswick Reservoir, vicinity of Chico, Sutter County, Antelope area, Tehama County, Mill Creek, Battle Creek, and Deer Creek)
- Cache Creek watershed and Clear Lake
- Middle Fork and North Fork of the Feather River
- Pit River
- Tulare Lake (Panoche and Silver Creeks, Kings Basin [Lower Kings River], Tule Basin, Kings River, Willow Creek [including Bass Lake], and Millerton Lake)

Region 6 – Lahontan

- Lower Truckee River (downstream of Lake Tahoe)
- Upper Truckee River (Lake Tahoe Basin)
- Carson River
- Upper Owens River
- Mojave River

Region 7 – Colorado River Basin

- Salton Sea
- Imperial Reservoir
- Southern Mojave

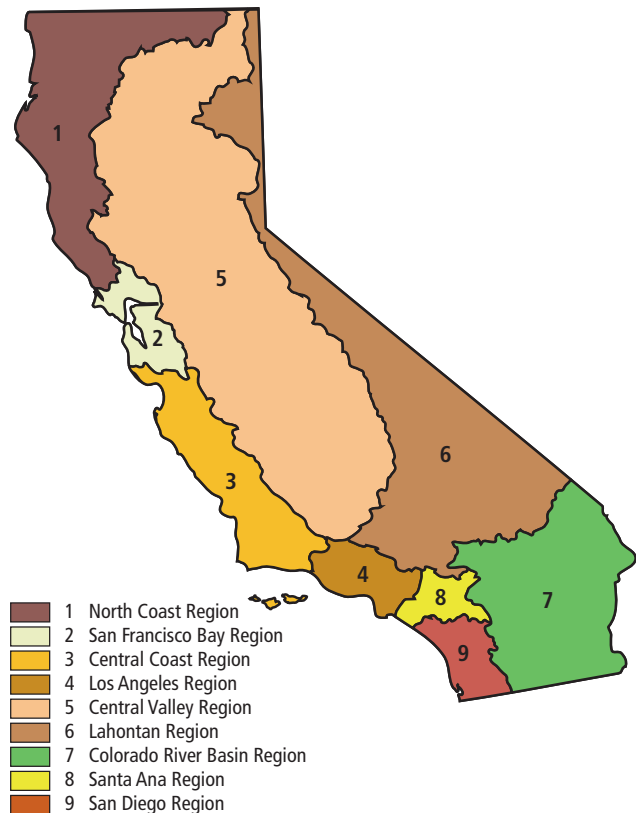


Figure 1. State Water Resources Control Board Regions

Region 8 – Santa Ana

- San Gabriel
- Seal Beach
- San Jacinto
- Santa Ana
- Newport Bay

Region 9 – San Diego

- Aliso–San Onofre
- Santa Margarita
- San Luis Rey–Escondido
- San Diego
- Cottonwood-Tijuana

Priority watersheds may change and new water bodies are being added to the Clean Water Act Section 303(d) list and scheduled for TMDLs, so it is important that you be proactive even if you are not currently in a priority watershed. You need to do two things:

1. Organize and participate in watershed projects, stream projects, conservancies, and coordinated resource management projects that affect your land. If you do not, someone else will. Your UC Cooperative Extension farm advisor, USDA-NRCS conservationist, or Resource Conservation District (RCD) can help you find out about local watershed projects.
2. Assess your own land for nonpoint pollution sources and write a farm water quality management plan. As an individual, this is your opportunity to show that you understand nonpoint source pollution problems, you have identified possible sources on your farm, and you have a plan for correcting the problem. If the agriculture industry is to demonstrate that self-determined, voluntary compliance works, large numbers of growers and landowners need to complete their own assessments and plans.

Environmental groups and some federal regulators are concerned that self-determined compliance will fail. UC Cooperative Extension, in cooperation with USDA-NRCS, RCDs, and industry associations, has begun to offer local short courses at which farmers can learn how to complete a nonpoint source assessment and plan.

This self-determined compliance program has been successful for the rangeland producers in California. The California Rangeland Water Quality Management Plan (CRWQMP) provides for landowner self-assessments of nonpoint source problems and landowner-written water quality management plans. The CRWQMP was approved by the State Water Resources Control Board in July, 1995. This plan was developed cooperatively by industry, conservation organizations, and state and federal agencies. It describes a program of self-determined compliance with the Clean Water Act, Coastal Zone Management Act, and Porter-Cologne Act.

Rangeland owners and managers must now implement this plan and prove that self-determined compliance is a viable alternative to regulatory prevention of nonpoint source pollution. It is time for the rest of the agricultural industry to take similar action as well.

REFERENCES

Abstracted from:

Rangeland watershed program fact sheet No. 31: Rangeland water quality: Where are the problems? July 1996. (Information prepared and edited by John Harper, County Director and Livestock and Natural Resources Advisor, Mendocino County; Melvin George, Range and Pasture Specialist, Agronomy and Range Science, UC Davis; and Kenneth W. Tate, CE Rangeland Watershed Specialist, UC Davis.)

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Protecting Groundwater Quality in Citrus Production, publication 21521

Sediments and Water Quality, slide set 91/102

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University of California
Agriculture and Natural Resources
Communication Services
6701 San Pablo Avenue, 2nd Floor
Oakland, California 94608-1239

Telephone: (800) 994-8849 or (510) 642-2431

FAX: (510) 643-5470

E-mail inquiries: danrcs@ucdavis.edu

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