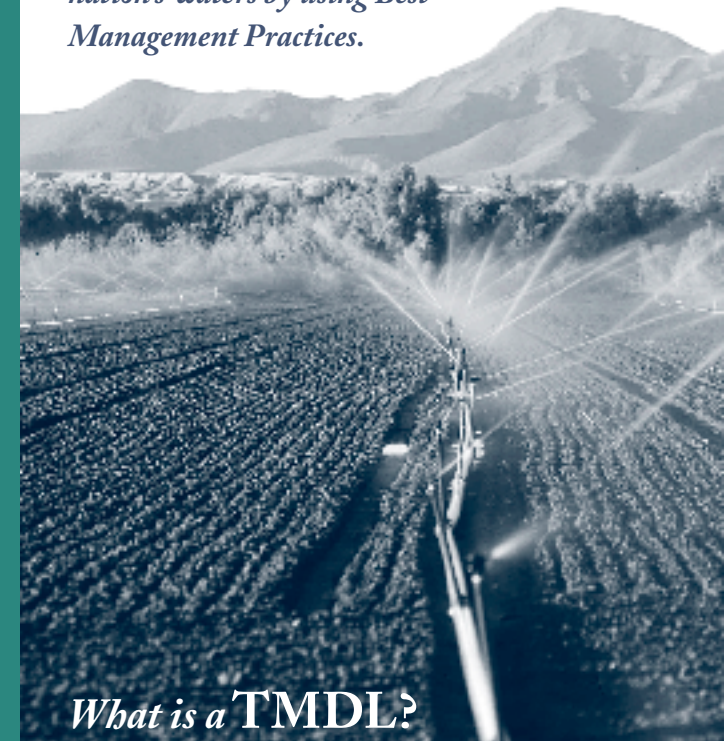




# TMDLs and Agriculture in the West

*Polluted runoff is a significant cause of water pollution across the country, including in agricultural areas. The agricultural community plays a vital role in the stewardship of our nation's waters by using Best Management Practices.*



## What is a TMDL?

A Total Maximum Daily Load (TMDL) is the maximum amount of any pollutant that a waterbody can receive and still meet state water quality standards. Water quality standards are set to protect and maintain uses including drinking, fishing, swimming, and irrigation. A TMDL is the basis on which strategies to improve and protect water quality are developed. The agricultural community is being called on to use Best Management Practices (BMPs) in their operations to prevent water pollution.

## Case Study:

### Farmers Make the Difference in Improving Imperial Valley Water Quality

In California's Imperial Valley, irrigation tailwater from fields has contributed high levels of sediment and other pollutants to the agricultural drains and the New and Alamo rivers, all of which discharge into the Salton Sea. The tailwater carries salts, nutrients, and pesticide residues.

A sediment TMDL established pollutant reduction levels necessary to meet state water quality standards. Based on the TMDL, California's Regional Water Quality Control Board is asking farmers to select and install appropriate measures to control sediment in their runoff.

The Imperial County Farm Bureau (ICFB) developed a streamlined program to assist farmers to meet the goals of reduced sediment in runoff. The program helps identify and install BMPs that work best to slow the flow of irrigation water and allow sediment to settle out before reaching local water bodies.

The ICFB effort is paying off. More farmers are taking steps to reduce sediment in runoff. Many farmers had already been using applicable BMPs that improve the management and efficient use of irrigation water. The effectiveness of these BMPs in addressing water pollution is becoming apparent—monitoring at several key drainage points has already indicated reduced pollutant levels. It appears that farmers' management practices are attaining pollutant reduction goals ahead of schedule, and reducing pollution in the Salton Sea downstream.



Farmers are encouraged to participate in the Voluntary TMDL Compliance Program by various means in Imperial County.

## Contacts and Web Sites

### Arizona

#### TMDL and Nonpoint Source (NPS)

Linda Taunt, Arizona Department of Environmental Quality  
602-771-4416 or e-mail: taunt.linda@ev.state.az.us

[www.adeq.state.az.us/environ/water/assess/hsa.html](http://www.adeq.state.az.us/environ/water/assess/hsa.html)

### California

#### TMDL

Ken Harris, State Water Resources Control Board  
916-341-5500 or e-mail: harrk@dwq.swrcb.ca.gov

#### NPS

Lauma Jurkevics, State Water Resources Control Board  
916-341-5498 or e-mail: ljurkvi@dwq.swrcb.ca.gov

[www.swrcb.ca.gov/tmdl/303d\\_lists.html](http://www.swrcb.ca.gov/tmdl/303d_lists.html)

### Hawaii

#### TMDL

June Harrigan, Hawaii Department of Health  
808-586-4337 or e-mail: jharrigan@eha.health.state.hi.us

#### NPS

Denis Lau, Hawaii Department of Health  
808-586-4309 or e-mail: dlau@eha.health.state.hi.us

### Nevada

#### TMDL

Tom Porta, Nevada Division of Environmental Protection  
775-687-9443 or e-mail: tporta@ndep.nv.gov

#### NPS

Kathy Sertic, Nevada Division of Environmental Protection  
775-687-9455 or e-mail: ksertic@ndep.nv.gov

### EPA Contacts

#### Pacific Southwest TMDL Team Leader: David Smith

415-972-3416 or e-mail: smith.davidw@epa.gov

[www.epa.gov/region09/water/tmdl](http://www.epa.gov/region09/water/tmdl)

#### Pacific Southwest NPS Coordinator: Audrey Shileikis

415-972-3459 or e-mail: shileikis.audrey@epa.gov

[www.epa.gov/region09/water](http://www.epa.gov/region09/water)

#### American Samoa

Carl Goldstein, 415-972-3767 or e-mail: goldstein.carl@epa.gov

#### Commonwealth of the Northern Marianas Islands

Mike Lee, 415-972-3769 or e-mail: lee.michaelj@epa.gov

#### Guam

Ben Machol, 415-972-3770 or e-mail: machol.ben@epa.gov

### USDA-Natural Resources Conservation Service

Find your local USDA Service Center on the Web:

[www.usda.gov](http://www.usda.gov)

[www.nrcs.usda.gov](http://www.nrcs.usda.gov)

## Working at a Watershed Level

A watershed includes all the land that drains to a common body of water. Rainfall, snowmelt, and irrigation water convey pollutants such as fertilizers, pesticides, sediment, manure, and salts from the land surface to nearby streams and rivers. These nonpoint sources (NPS) of pollution, which are generated by many agricultural, rural, and urban activities in the watershed, cumulatively degrade our water resources. Organizations that have been instrumental in improving water quality at the watershed level include local conservation districts, agricultural associations, non-governmental organizations, and government agencies.

## Taking Steps to Improve Water Quality

The agricultural community will play a vital role in improving water quality through using farming and ranching practices to minimize water pollution. These are often referred to as Best Management Practices or BMPs. To meet TMDL-recommended pollutant reductions from agricultural sources, the agricultural community will be called on to adopt site-appropriate practices that minimize water pollution. In addition to protecting water quality, BMPs such as vegetated buffer strips, integrated pest management and protection of riparian corridors help keep production efficient and prevent the loss of valuable topsoil.

For a detailed description of agricultural BMPs visit [www.epa.gov/watertrain/agmodule](http://www.epa.gov/watertrain/agmodule), or to learn about conservation practices in your area, visit [www.nrcs.usda.gov/technical/](http://www.nrcs.usda.gov/technical/). (Click on the Regional and State Offices link, then click on your state.)



## What You Should Know About TMDLs

- The TMDL process provides several opportunities for the agricultural community and other citizens to get involved in developing TMDLs, including public hearings; data collection and validation; and identifying appropriate, affordable, and effective BMPs.
- TMDLs set the stage for watershed planning by developing the most targeted and effective cleanup strategies. States and other partners can help the agricultural community build technical and financial capabilities to address water pollution while supporting their economic vitality. States recognize that no single, across-the-board solution exists for the various activities that generate polluted runoff. A typical state strategy with the agricultural community is to have them develop pollution prevention plans, and show plan implementation. TMDLs do not automatically mean regulatory enforcement.
- The costs of installing and using BMPs to curb polluted runoff can be defrayed through grants and loans issued specifically to the agricultural community. These funds are provided by the federal government and distributed by state environmental agencies or local Conservation Districts. For more information on obtaining financial or technical assistance for BMPs, refer to the table below and the back of this brochure.

## Getting the Resources to Install BMPs

There are numerous opportunities for the agricultural community to receive funding and technical assistance from state and federal agencies for BMPs. State water quality and conservation agencies, the U.S. Environmental Protection Agency (EPA), and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) are important sources of assistance. They run programs to assist the agricultural community with planning and using conservation practices on their land. Their programs often offer cost-

share money to the agricultural community. For example, the 2002 Farm Bill authorized nearly \$13 billion for USDA programs to assist the agricultural community with conservation measures and environmental protection efforts over six years.

Locally led Conservation Districts identify and resolve resource issues that affect them. They provide leadership in USDA local workgroups that can result in technical and financial assistance to the agricultural community and others. Further details are available at [www.nrcs.usda.gov/partners/districts.html](http://www.nrcs.usda.gov/partners/districts.html).

## Spotlight on Funding

Name of Program	Highlights	More Information
<b>Farm Bill 2002</b> <i>Agency: USDA</i>	Federally funded conservation programs.	<a href="http://www.nrcs.usda.gov/programs/farmbill/2002/">www.nrcs.usda.gov/programs/farmbill/2002/</a>
Environmental Quality Incentives Program (EQIP)	Cost-share assistance for BMPs to improve water quality and conservation.	<a href="http://www.nrcs.usda.gov/programs/eqip">www.nrcs.usda.gov/programs/eqip</a>
Conservation Reserve Program	Assistance with converting cropland to less intensive use, as well as establishing and maintaining conservation practices.	<a href="http://www.fsa.usda.gov/dafp/cepd/crp.htm">www.fsa.usda.gov/dafp/cepd/crp.htm</a>
Conservation Reserve Enhancement Program (CREP)	Incentive payments including annual rents and cost-share assistance for growing long-term, resource-conserving covers on eligible land.	<a href="http://www.fsa.usda.gov/dafp/cepd/crep.htm">www.fsa.usda.gov/dafp/cepd/crep.htm</a>
<b>Clean Water Act Section 319 Nonpoint Source Grant Program</b> <i>Agency: USEPA</i>	Funding for BMPs through local Conservation Districts, government agencies, non-profits, and universities. Different from Farm Bill funding, these funds may also support related activities such as water quality monitoring and watershed coordinators.	<a href="http://www.epa.gov/owow/nps/cwact.html">www.epa.gov/owow/nps/cwact.html</a>