



California Regional Water Quality Control Board

Colorado River Basin Region



Gray Davis
Governor

Winston H. Hickox
Secretary for
Environmental
Protection

Internet Address: <http://www.swrcb.ca.gov/~rwqcb7>
73-720 Fred Waring Drive, Suite 100, Palm Desert, California 92260
Phone (760) 346-7491 · FAX (760) 341-6820

November 13, 2001

TO: TAC Members and Interested Parties

RE: Salton Sea Nutrient Total Maximum Daily Load (TMDL) Technical Advisory Committee (TAC) Meeting

The first meeting of the Salton Sea Nutrient Total Maximum Daily Load (TMDL) Technical Advisory Committee (TAC) is scheduled for Wednesday, November 28, 2001, 10:00 AM-12:00 PM, at the California Regional Water Quality Control Board, Colorado River Basin Region, 73-720 Fred Waring Drive, Suite 100, Palm Desert, CA. The draft agenda and TAC list are enclosed for your review. Both are available at our website: <http://www.swrcb.ca.gov/rwqcb7>.

The goals of the first meeting are:

- Discuss the tentative agenda;
- Discuss TAC roles; and,
- Acquaint ourselves.

We look forward to your participation. For further information, please contact me at (760) 776-8931 or Dr. Francisco Costa at (760) 776-8937.

Teresa Newkirk, Senior Environmental Scientist
Chief of TMDL Development

FC/hs

Enc: As noted above

File TMDL SS N
TMDL SS N TAC

California Environmental Protection Agency



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DEVELOPMENT AND IMPLEMENTATION OF NUTRIENT TOTAL MAXIMUM DAILY LOADS FOR THE SALTON SEA

TECHNICAL ADVISORY COMMITTEE Meeting Agenda

Wednesday, November 28, 2001, 10:00 am-12:00 pm.
California Regional Water Quality Control Board
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA

10:00-10:10 – Introductions

11:10 – 10:30 – Briefing by Jose Angel

- TMDL Background
- Goals, Objectives and Functions.

10:30-11:00 – TAC Resources

- Ground Rules

11:00 – 11:30 – Nomination of Officers

11:30 – 11:55 – Action Items

- TAC List corrections
- Set date and agenda for next meeting
- Questions and Comments
- Adjournment

**Technical Advisory Committee (TAC) for development and implementation of
Nutrient Total Maximum Daily Load (TMDL) for the Salton Sea**

Member Name	Contact Address/Telephone	Organization/Affiliation
Linden Anderson	Riverside County Farm Bureau 21160 Box Springs Road, Suite 102 Moreno Valley, CA 92557 Tel direct: (760)344-2571 Tel: (909)684-6732 Fax: (909)782-0621	Riverside County Farm Bureau
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Khaled M. Bali	UC Cooperative Extension 1050 E. Holton Road Holtville, CA 92250-9615 Tel: (760) 352-9474 Fax: (760) 352-0846	UC Cooperative Extension
Stephen L. Birdsall	Imperial County Agricultural Commissioner 150 South 9 th Street El Centro, CA 92243- 2850 Tel: (760) 482-4314	Imperial County
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Elston Grubaugh (Steve Charlton)	Imperial Irrigation District P.O. Box 937 Imperial, CA 92251 Tel: (760)339-9109	Imperial Irrigation District

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<p>Tom Kirk</p>	<p>Salton Sea Authority 78-401 Highway 111, Suite T La Quinta, CA 92253 Tel: (760) 564-4888</p>	<p>Salton Sea Authority</p>
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<p>Eric McGee (Chuck Schmidt)</p>	<p>Western Farm Service 2787 West Bullard Ave., Suite 105 Fresno, CA 93711 Tel: (559) 436-2936 Fax: (559) 436-2948</p>	<p>Fertilizer Industry</p>
<p>Don Mitchell</p>	<p>Coachella Valley Water District (CVWD) P.O. Box 1058 Coachella, CA 92236 Tel: (760) 398-2651</p>	<p>Coachella Valley Water District (CVWD)</p>

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Total Maximum Daily Load Fact Sheet

What Is The TMDL Process?

The Total Maximum Daily Load (TMDL) process provides a flexible assessment and planning framework for identifying load reductions or other actions needed to attain water quality standards (e.g., water quality goals to protect aquatic life, drinking water, and other water uses). Clean Water Act §303(d) established the TMDL process to guide application of state standards to individual waterbodies/watersheds. The process has three steps:

1. *Identify Quality Limited Waters*- States must identify and prepare a list [§303(d) list] of waters that do not or are not expected to meet water quality standards after applying existing required controls (e.g., minimum sewage treatment technology). The Regional Board adopted its §303(d) list in 1996 and updated the list in January 1998. Attached is a copy of the updated list.
2. *Establish Priority Waters/Watersheds*- States must prioritize waters/watersheds and target high priority waters/watersheds for TMDL development. The Salton Sea Transboundary Watershed is the Region's priority watershed as it contains the most severely impaired surface waters of the Region.
3. *Develop TMDLs*- For listed waters, States must develop TMDLs that will achieve water quality standards, allowing for seasonal variations and an appropriate margin of safety. A TMDL is a quantitative assessment of water quality problems, contributing sources, and load reductions or control actions needed to restore and protect individual waterbodies. The Regional Board has begun to develop TMDLs for the Imperial Valley and the New River at the International Boundary.

State and territorial water quality agencies are usually responsible for implementing the TMDL process. EPA reviews and approves lists of quality-limited waters requiring TMDLs and specific TMDLs. If EPA disapproves lists or TMDLs, EPA is required to establish the lists and/or TMDLs. Landowners, other agencies, and other stakeholders can often assist States or EPA in developing TMDLs for specific watersheds.

What Do TMDLs Address?

TMDLs should address all significant stressors which cause or threaten to cause waterbody use impairment, including:

- *point sources* (e.g., sewage treatment plant discharges),
- *nonpoint sources* (e.g., runoff from fields, streets, range, or forest land), and
- *naturally occurring sources* (e.g., runoff from undisturbed lands).

A TMDL is the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources and natural background pollutants, and an appropriate margin of safety. TMDL Plans may address individual pollutants or groups of pollutants, as long as they clearly identify the links between:

- *the waterbody use impairment or threat of concern,*
- *the causes of the impairment or threat, and*

California Environmental Protection Agency

- *the load reductions or actions needed to remedy or prevent the impairment.*

What Are TMDLs Based On?

TMDLs are usually based on readily available information and studies. In some cases, complex studies or models are needed to understand how stressors are causing waterbody impairment. In many cases, simple analytical efforts provide an adequate basis for stressor assessment and implementation planning.

Where inadequate information is available to draw precise links between these factors, TMDLs may be developed through a phased approach. The phased approach enables states to use available information to establish interim targets, begin to implement needed controls and restoration actions, monitor waterbody response to these actions, and plan for TMDL review and revision in the future. **Phased approach TMDLs are particularly appropriate to address nonpoint source issues.**

TMDL and Implementation Components

TMDLs are developed to provide an analytical basis for planning and implementing pollution controls, land management practices, and restoration projects needed to protect water quality. States are required to include approved TMDLs and associated implementation measures in State water quality management plans or basin plans.

TMDL Components

Problem Statement: A description of the waterbody/watershed setting, beneficial use impairments of concern, and pollutants or stressors causing the impairment.

Numeric Target(s) For each stressor addressed in the TMDL, appropriate measurable indicators and associated numeric target(s) based on numeric or narrative water quality standards that express the target or desired condition for designated beneficial uses of water.

Source Analysis: An assessment of relative contributions of pollutant or stressor sources or causes to the use impairment and extent of needed discharge reductions/controls.

Loading Capacity Estimate: An estimate of the assimilative capacity of the waterbody for the pollutant(s) of concern.

Allocations: Allocation of allowable loads or load reductions among different sources of concern, providing an adequate margin of safety. These allocations are usually expressed as wasteload allocations to point sources and load allocations to nonpoint sources. Allocations can be expressed in terms of mass loads or other appropriate measures. The TMDL equals the sum of allocations and cannot exceed the loading capacity.

Monitoring Plan (for Phased Approach): Plan to monitor effectiveness of TMDL and schedule for reviewing and (if necessary) revising TMDL and associated implementation elements.

Implementation Measures

Implementation Elements: Description of best management practices, point source controls or other actions necessary to implement TMDL. Usually a plan describing how and when necessary controls/ restoration actions will be accomplished, and who is responsible for implementation.

File: TMDL Sitt

Attachment Three
CRWQCB-CRBR 2001 303(d) List
Timeline for Development of Total Maximum Daily Loads (TMDLs)¹

WATERBODY	HYDROLOGIC UNIT NO.	SIZE AFFECTED	PROBLEM DESCRIPTION	POLLUTANT/STRESSOR	PROBABLE SOURCE	TMDL PRIORITY	TARGET DATE(S)
New River	723.10	60 miles	Basin Plan Objectives violated, public health hazard	Pathogens	Mexico and Wastewater Treatment Plants in Imperial County	High	Started 1998, completed 2001
			Basin Plan Objectives violated, recreational impacts	Silt	Imperial Valley agricultural return flows	High	Started 1998, complete 2002
			Elevated fish tissue levels, fish kills	Pesticides ⁴	Imperial Valley agricultural return flows and Mexico	High	Start 2005, complete 2011
			Basin Plan Objectives violated, fish kills	Dissolved Organic Matter/Dissolved Oxygen	Mexico	High	Start 2003, complete 2006
			Basin Plan Objectives violated, Public health hazard	Trash	Mexico	High	Start 2004, complete 2007
			Basin Plan Objectives violated ²	Chloroform	Mexico	High	Start 2007, complete 2011
			Basin Plan Objectives violated ²	Toluene	Mexico	High	Start 2007, complete 2011
			Basin Plan Objectives violated ²	p-Cymene	Mexico	High	Start 2006, complete 2009
			Basin Plan Objectives violated ²	1,2,4-trimethylbenzene	Mexico	High	Start 2006, complete 2009
			Basin Plan Objectives violated ²	M,p,-Xylene	Mexico	High	Start 2005, complete 2008
			Basin Plan Objectives violated ²	o-Xylenes	Mexico	High	Start 2005, complete 2008
Basin Plan Objectives violated ²	p-DCB	Mexico	High	Start 2006, complete 2010			

1. (See footnotes on page 3)

Attachment 3 (cont.)

WATERBODY	HYDROLOGIC UNIT NO.	SIZE AFFECTED	PROBLEM DESCRIPTION	POLLUTANT/STRESSOR	PROBABLE SOURCE	TMDL PRIORITY	TARGET DATE(S)
Alamo River	723.10	52 miles	Basin Plan Objectives violated, recreational impacts	Silt	Imperial Valley agricultural return flows	High	Started 1998, completed 2001
			Elevated fish tissue levels, toxic bioassay results	Pesticides ⁴	Imperial Valley agricultural return flows	High	Start 2005, complete 2011
			Elevated fish tissue levels	Selenium ³	Imperial Valley agricultural return flows	High	Start 2005, complete 2010
Imperial Valley Drains	723.10	1,305 miles	Basin Plan Objectives violated, recreational impacts	Silt	Imperial Valley agricultural return flows	High	Start 2001, complete 2004
			Elevated fish tissue levels, toxic bioassay results	Pesticides ⁴	Imperial Valley agricultural return flows	High	Start 2005, complete 2011
			Elevated fish tissue levels	Selenium ³	Imperial Valley agricultural return flows	High	Start 2003, complete 2010
Salton Sea	728.00	220,000 acres	Basin Plan Objectives violated, recreational impacts	Nutrients	Agricultural return flows, NPDES Wastewater Treatment Plants, Mexico	High	Start 2001 complete 2004
			Basin Plan Objectives violated	Salts ⁵	Agricultural return flows, NPDES Wastewater Treatment Plants, Mexico	High	
			Elevated fish tissue levels	Selenium ³	Agricultural return flows	Medium	Start 2005, complete 2010

Attachment 3 (cont.)

WATERBODY	HYDROLOGIC UNIT NO.	SIZE AFFECTED	PROBLEM DESCRIPTION	POLLUTANT/STRESSOR	PROBABLE SOURCE	TMDL PRIORITY	TARGET DATE(S)
Palo Verde Outfall Drain	715.40	16 miles	Basin Plan Objectives violated, public health hazard	Pathogens	Unknown	Medium	Start 2001, complete 2003
Coachella Valley Storm water Channel	719.47	20 miles	Basin Plan Objectives violated, threat of toxic bioassay results	Pathogens	Unknown	Low	Start 2002, complete 2005

1. This is not a commitment to complete work. The commitments are made in fund source specific workplans.
2. Current Regional Board's monitoring data for the New River at the International Boundary shows that VOCs are routinely present in the New River immediately downstream from the International Boundary with Mexico, at concentrations that violate Basin Plan objectives. However, data collected by USBOR near the New River-Salton Sea Delta in 1999 and briefly presented at the January 13-14, 2000 Salton Sea Symposium found that VOCs in the New River not to be of major concern. Therefore, it is believed that the VOC impairment may not affect the 60-mile stretch of the New River in the USA. Additional data is necessary to characterize the impacted river segment.
3. Selenium originates from upper portion of the Colorado River and is delivered to the Imperial Valley via irrigation water; Selenium will likely be addressed via a federal TMDL for the entire Colorado River Watershed.
4. May be effectively addressed by Silt TMDL, thus not requiring new TMDL development.
5. TMDL development will not be effective in addressing this problem, which will require an engineered solution with federal, state, and local cooperation.