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The TMDL Process in Texas

What You Need to Know

What Is a TMDL?

A total maximum daily load (TMDL) is:

- The maximum amount of a pollutant that a lake, river, stream, or estuary can receive without seriously harming its beneficial uses (swimming, drinking, aquatic life, other).
- A detailed water quality
 assessment that provides the
 scientific foundation for a
 watershed action plan. A
 watershed action plan outlines
 the steps necessary to reduce
 pollutant loads in a certain
 body of water to restore and
 maintain human uses or
 aquatic life.

Why Is Texas Developing TMDLs?

- The development of TMDLs and watershed action plans is, in many cases, the best method to improve water quality.
- All states are required by Section 303(d) of the 1972 Federal Clean Water Act (CWA) to develop TMDLs for water bodies that are impaired (too polluted to maintain their beneficial uses). The list of the lakes, rivers, streams, and estuaries in Texas that may

need development of TMDLs and watershed action plans is published annually by the TNRCC in the report, State of Texas Clean Water Act Section 303(d) List [or the Texas 303(d) List].

- Federal regulations prohibit the addition of certain new sources and new discharges of pollutants to waters listed on the Texas 303(d) List until a TMDL is completed.
- Under federal law, if Texas does not develop its own TMDLs, the U.S. Environmental Protection Agency (EPA) must develop them.

When Will TMDLs Be Developed?

Texas has already completed a number of TMDLs and waste load evaluations (predecessors to TMDLs). In 1998, TMDLs for 11 different water bodies were approved by the EPA.

Under its "TMDLs in 10 Years" initiative, the Texas Natural Resource Conservation Commission (TNRCC) has committed to developing TMDLs for the 147 water bodies listed on the Texas 303(d) List in 10 years. To do this, the TNRCC plans to initiate approximately 10 TMDLs

each year; some of these projects are under way.

You can get up-to-date information on the TMDLs in progress by visiting the TNRCC Web site or by writing or calling the TNRCC TMDL Team. See contact information at the end of this document.

How Will TMDLs Be Funded?

The 76th Legislature appropriated funds to the TNRCC and the Texas State Soil and Water Conservation Board (TSSWCB) to support the development of TMDLs. Both agencies are redirecting some of their current federal funding to support the development and implementation of TMDLs. Other funding approaches being pursued include:

- Leveraging existing grants from other state and federal agencies by identifying common watershed management goals.
- Encouraging soil and water conservation districts and watershed groups to sponsor and locally coordinate TMDLs.
- Seeking in-kind services from other agencies, industries and conservation groups.

Guidance for Submitting Data and Information for the Texas 2000 Clean Water Act Section 303(d) List

April 27, 1999

The Texas Natural Resource Conservation Commission (TNRCC) Data Collection Section staff will evaluate all data and information submissions to determine whether they are applicable and useful for identifying impaired and threatened water bodies as required by the Clean Water Act, §303(d). The 303(d) listing process provides a basis for long-term planning efforts. The process is neither intended nor appropriate for short term, critical conditions requiring immediate response. Information or comments regarding critical water quality conditions may be submitted at any time to the appropriate TNRCC program but are unlikely to immediately impact the 303(d) listing process. The following deadlines and strictures are not meant to discourage reports of important information but to facilitate efficient submission of information that represents ongoing conditions in surface water bodies in the state of Texas.

I. Data for the Development of the 2000 303(d) List

The 2000 303(d) List will be developed during the period of July 1999 through March 2000. A draft list will be made available for public comment in early 2000. The final list will be submitted to the U.S. Environmental Protection Agency (EPA) on April 1, 2000.

A data set that can be used to evaluate surface waters throughout the state will be available on the TNRCC SWQM Web site (http://www.tnrcc.state.tx.us/water/quality/data/wqm/) on September 1, 1999. This data set will include the all data collected for the period of June 1, 1994 to May 31, 1999.

The data that the TNRCC considered for Basin Group A in developing the Draft 2000 303(d) List will be made available for public review on the TNRCC SWQM Web site (http://www.tnrcc.state.tx.us/water/quality/data/wgm/) on January 14, 2000.

Instructions for performing the assessment and reporting results in the 305(b) data table format will be included with each set of data posted on the Web site.

New Data

All raw data submissions must be received by TNRCC by July 15, 1999. All data must be submitted in the format described in the TNRCC Data Management Reference Guide.

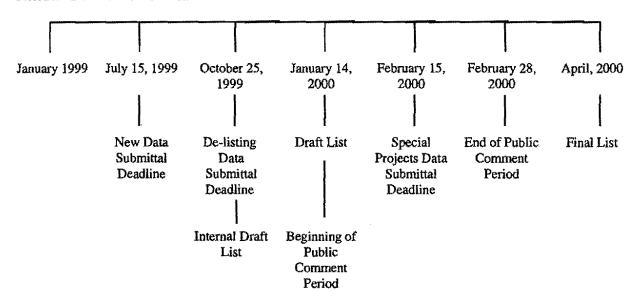
Additional data will not be accepted after July 15. Early submittal (prior to July 15 deadline) is encouraged to ensure that data are free of error and in the appropriate format.

Note: The TNRCC strongly recommends that all entities intending to submit data through this process coordinate submittal with the Clean Rivers Program (CRP) planning agency for the appropriate basin. CRP planning agencies will assist in documenting the quality of data under their approved Quality Assurance Project Plans.

- must be summarized in a 305(b) data table format.
- must supply the raw data used, in printed or electronic copy, <u>including</u> data provided by the TNRCC for the assessment period.
- must include the entire data set collected for the period beginning June 1, 1994, unless more recent data are substantially more representative or of better quality.

TNRCC Data Collection Section staff will assess special study data for completeness, representativeness, and quality.

Timeline for Data Submittal



II. Comments on the Draft 303(d)List

To be considered for changes to the final 303(d) List, comment submissions must:

- include comments specific to the Draft 2000 303(d) List.
- name or identify specific water bodies of concern and the geographic extent of the water quality concern.
- state the specific impairment or pollutant of concern.
- explicitly describe evidence of the presence or absence of impairment(s) or pollutant(s), including a description of how indirect evidence or data were interpreted or analyzed to support the commentor's conclusion.

Comments will be accepted after the draft list is published on January 14, 2000. The comment period will end on February 28. Comments must be submitted in writing by mail, fax or e-mail. Comments will not be accepted by phone.

MEETING NOTICE

Trinity River Basin: Geospatial Database Demonstration And Plans for TMDL Projects in FY2000

North Central Texas Council of Governments 616 Six Flags Drive Arlington, TX 10:00 a.m.- 2:00 p.m.*, August 13, 1999

The North Central Texas Council of Governments is hosting a special presentation on TMDL (Total Maximum Daily Load) related topics in the Trinity Basin on August 13, 1999 by members of the TNRCC TMDL Team. The first part of the presentation will be a demonstration of geospatial GIS data layers that have been compiled for the Trinity River Basin and how these will be used in future TMDL work. The second part will be a discussion of plans for TMDL projects in the Trinity River Basin in FY2000. All interested parties are welcome to attend.

Agenda

Introduction - Bill Saunders, TNRCC
Blacklands Research Center tasks & data - R. Srinivasan, BRC (or TNRCC)

- Percent Anderson land use calculated per Hydrologic Cataloging Unit
- Integrated land use layer for State of Texas, reclassified to MRLC

University of Texas tasks & data - David Maidment, UT Center for Research in Water Resources

- Overview of the use of DEM data for watershed delineation
- WQ Segment Subwatershed Delineation within the Trinity River Basin
- Establishment of an Integrated Geospatial database for each Subwatershed
- Reconciliation of pertinent point location data to stream network structure

Break for Lunch * (on your own)

Plans for TMDL projects in the Trinity Basin in FY2000 - TMDL Team, TNRCC

*NOTE: The meeting is not expected to run longer than 2:00 PM. If we get through the Geospatial Data presentation material significantly before noon, we may collectively decide to forge ahead with the TMDL discussion and be done before 1:00 PM.

For more information, call Keith Kennedy, NCTCOG staff, at (817) 695-9221.

Statewide Toxicity Project

	waterBody Name Segient Number	RollurineGiaGonGen	aborte@icontaiton:	illain Jaggan	Strik-8y	
5.	Lower West Fork Trinity River, 0841 Alligator Bayou, 0702A	Toxicity (water & sediment) Toxicity (water & sediment)	RFP?	Kirk Dean Gail Rothe	Statewide Peer Review Committee	Toxics Evaluation (Identification) Project. The toxicity project will focus on confirming the presence or absence of toxicity and identifying probable causes of toxicity through intensive toxicity testing, complete chemical contaminant characterization, and assessment of aquatic biological communities.
	Vince Bayou, 1007A Bryan Municipal Lake, 1209A	Toxicity (sediment) Toxicity (water &				
	Fin Feather Lake, 1209B	sediment) Toxicity (water)				
	Concho River, 1421 Medina River below dam, 1903	Toxicity (water) Toxicity (water)				
	Arroyo Colorado Tidal, 2201	Toxicity (sediment)				
	Rio Grande below Amistad, 2304	Toxicity (water & sediment)				
	Rio Grande below Amistad, 2306	Toxicity (water & sediment)				

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Water Body Name, Segment Number	Uses impaired Pollutants of Concern	Local	303d Rank	EPA	Complex	\$3	Comments			
10 Lake Lavon, #0821	Public drinking water - atrazine		THE STATE OF THE S			A LI PER AND A SECONDARY OF THE PERSON OF TH	Begin targeted monitoring September 1999			
11. 7 water bodies: #802, 804, 805, 806, 810, 819, 841	Contact recreation - feeal coliform		U(L)		X		Awaiting results of statewide study.			
Group II A: Candidate water bodies for Early TMDL project development: FIRST PRIORITY for next round of funding										
12. Lower West Fork Trinity River, #0841	Aquatic life use - toxicity in water and sediment						No current sampling underway. Part of the Statewide Toxies Evaluation Study??			
.13. Mountain Creek Lake, #841A	Fish consumption use - PCBs, chlordane, heptachlor epoxide, dieldrin, DDE, DDD, and DDT		M	1.42.E						
14. Fosdic Lake, #0806-A	Fish consumption use - PCBs, chlordane, dieldrin, and DDE		M							
15 Echo Lake, #806-B	Fish consumption use - PCBs		M	¥ = 1		- 15 - 15 - 15 - 15 - 15 - 15 - 15 - 15	Straight Control of the state o			
16. Clear Fork Trinity River Below Benbrook Lake, #0829; Lake Como, #0829-A	Fish consumption use - PČBs, chlordane, dieldrin, and DDE		M. T.							
Group II-B: Candidate water bodies for early TMDL project development: SECOND PRIORITY -depends on available funding										
17. West Fork Trinity River Above Bridgeport Reservoir, #0812	Aquatic life use - low dissolved oxygen; general numeric criteria - chloride and total dissolved solids.		М		Х		-			
18. Joe Pool Lake, #0838	General numeric criteria - sulfate and total dissolved solids		Ĺ,		×					
Group III: Candidate Water Bodies for later TMDL project development										
None.		***************************************								

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Existing TMDL Projects Basin Group B August 13, 1999 Legend Projects Underway 303(d) segment watershed 1999 303(d) listed WQ segment Reservoir/estuary County

next year, Russell continues. "Opponents of changes say that it shouldn't be an issue because there are only a dozen or so sites with natural resources damage claims over \$50 million. We believe there will be many more ... in the future," she says.

According to the Democratic source, determining how to calculate intangible costs of something like "value of presence" and to what degree companies should be required to compensate the public will shape discussions about natural resource damage compensation.

RCRA, says the Democratic source, "will be pushed far back because it is not as divisive a statute, and [representatives) don't hear much about it from constituents." Interstate waste issues, such as deciding whether states will continue to have authority to reiect hazardous waste from other states, probably will be addressed by the 105th Congress, but separate from any RCRA reauthorization bill, he says.

LaJuana Wilcher, an attorney at

Leboeuf, Lamb, Greene, and Macrae in Washington, D.C., said during WEFs annual conference in October that the future of environmental legislation depends "not just [on] who's in the majority, [but] what issues are a priority, personally, to the members."

The political agendas of freshmen members and any changes in the priorities of returning members will become clearer as Congress begins work this year.

— Kellye Kratch, WE&T

WATER QUALITY

Lawsuits Imply States Missing the Boat on Developing Lists of Impaired Waters

he total maximum daily load (TMDL) program is holding steady as a regulatory punching bag of environmental interest groups.

The Clean Water Act (CWA) program requires states to develop lists of impaired waters and then calculate pollutant loads from point and nonpoint sources that allow the state to meet ambient water quality standards, also known as TMDLs. The agency has approved complete lists in most states and has delegated authority to those states to complete requirements of the act, says Jeff Grubbs, director of the Assessment and Watershed Protection Division in EPA's Office of Water.

But environmental groups have been challenging the agency over such approval, arguing that the lists are incomplete, and that no TMDLs have been set, or the TMDLs are not legally or scientifically sufficient to restore a contaminated water body to EPA standards. At press time, 13 lawsuits and 8 notices of intent to sue were pending, according to the agency.

Two recent court decisions illustrate the power of environmental organizations when states fail to meet requirements. In August, a federal court made a precedent-setting ruling requiring EPA to promulgate TMDLs in Georgia in 5 years rather than the agency's proposed 10-year schedule. The next month, a federal court in Idaho held that EPA's proposed 25-year schedule to develop TMDLs for Idaho's waters was "arbitrary and capricious" and also suggested a 5-year schedule.

Impossible Deadline

Five years is not enough time for states to incorporate effective pollution reduction efforts into TMDLs. Grubbs says. Noting that Georgia and Idaho have more than 500 and 926 impaired waters, respectively, he says each state deadline must "fit the circumstances."

EPA, Grubbs says, filed a notice to appeal the decision in Georgia, where EPA used the argument that 10 years is needed because 90% of the waters are dominated by nonpoint sources. "There was no rationale, no explanation, and complete disregard for the agency's technical analysis," he says. "We can't live with [the 5-year deadline]. It's a farce." Fifteen years is the most practical time line for Georgia to produce TMDLs, says Harold Reheis, director of the **Environmental Protection Division in** the Georgia Department of Natural

If Georgia fails to meet the 5-year mark, the state could lose its authority to issue National Pollutant Discharge Elimination System permits in some cases, Reheis says. A municipal wastewater treatment plant, for example, would not be able to expand its capacity and discharge treated effluent to an impaired stream segment without a TMDL, he says.

CWA Section 303(d) requires states to identify water bodies that fail to meet federal water quality standards and establish TMDLs. Section 303(e) calls for states to develop reports that give the public access to Section 303(d) information.

In 1992, the agency promulgated amendments to its original TMDL regulation (57 FR 33040, July 24) that require states to submit 303(d) lists every 2 years. States submitted lists in 1992 and 1994 and, at press time, were working to complete their 1996 lists, Grubbs says.

EPA is legally responsible for establishing lists or TMDLs when it disapproves of state lists or TMDLs. But agency oversight has been insufficient, says Jim Nay, director of the Environmental Law Clinic at Widener University in Wilmington, Del., which is representing environmental groups in lawsuits against EPA over TMDL progress in Pennsylvania, Delaware, and New Jersey. Many times "EPA has walked away from Sections 303(d) and (e) to the detriment of many water bodies," he says. The law clinic's staff and students have been monitoring EPA progress since 1992, he adds.

State environmental agencies have not applied enough resources to their

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the process of getting a [Section] 404 permit, [but] environmental groups think the 404 permitting process is too lenient. It will be tough to find common ground," he says.

According to Ken Kirk, executive director of the Association of Metropolitan Sewerage Agencies in Washington, D.C., House Transportation and Infrastructure Committee members are more concerned about moving the Intermodal Surface Transportation Efficiency Act, a national highway bill, than CWA, which he says will be addressed late in the session. Bagwell agrees the highway bill will be a higher priority than CWA, but says it is possible for different subcommittees to address both issues at the same time.

CWA could become a priority if courts continue to rule in favor of environmental groups who are suing EPA for failing to set total maximum daily load (TMDL) standards for impaired water bodies, says Harold Reheis, director of the Georgia Department of Natural Resources and president of the Environmental Council of States. At press time, more than 20 lawsuits were pending (see related article, p. 18).

If a majority of states have difficulty meeting requirements of TMDL orders coming out of federal court and Congress could set a more reasonable schedule and provide more funding to comply with TMDL requirements, "that might provide an impetus to deal with reauthorization," he says.

Setting TMDLs is resource intensive, Bagwell says. If environmental groups start winning the suits and states or EPA are required to systematically issue TMDLs for all affected waterbodies, Congress could, through CWA reauthorization, provide relief by extending state deadlines to issue TMDLs (which would remove the burden from EPA) or limiting the number that must be set within a time period, he says.

According to the Democratic source, "In situations where state water quality standards impose new and stricter requirements on industries, there may be a backlash calling for Congress to revise the statute and make it less harsh."

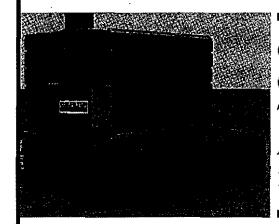
Barring a backlash, Russell says, "I think it's safe to say that both [parties]

think we don't need a major [CWA] rewrite [because] the act is working well." Superfund, on the other hand, has been a failure and is in dire need of reform, she says.

"The liability system is the root [Superfund] problem. [We need to get] lawyers out of the process and streamline it. There's a difference of opinion on how best to go about that [so we can] get sites cleaned up faster," she says. EPA and the Department of Justice "seem to resist any real reform of the liability system that gives some companies a break," she adds.

Natural resource damage compensation will emerge as a salient issue in congressional debates about Superfund

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TMDL programs, says Rick Parrish, a lawyer at the Southern Environmental Law Center in Charlottesville, Va., which has advocated improvements to TMDL programs in southern states.

"Information would be much more forthcoming if states really cared about cutting back on pollution," Parish says. "[States] are unwilling to offend interest groups that would have to spend resources to reduce pollution."

States are developing lists and TMDLs that are supported by documentation," says EPA's Grubbs. "We'll defend the [lists and TMDLs] when the state has done its job and where the plan is good." he says. With tens of thousands of water bodies nationwide, mistakes will be made, he adds.

The numerous lawsuits and other legal action prompted the formation of a federal advisory committee to help EPA identify contaminated waters, establish TMDLs, and develop appropriate watershed protection programs for waterbodies, says Ed Wagner, Water Environment Federation (WEF) representative to the committee. "There's clearly a dilemma," says Wagner, who also is vice president of CH2M Hill in Parsippany, N.J.

The committee first met in November and will meet at least three more times into 1998, says Corrine Wellish, EPA's designated federal officer to the committee.

The lawsuits, Grubbs says, "will not be a problem" for EPA when states make considerable progress toward fully implementing the TMDL program. He offered no time line for when states may begin to move forward. "We're getting sued because there's problems in the way the states have done this," he says. "When they have complete lists, they're doing their TMDLs, they're getting into permits ... that's what the law requires."

Reheis says he "would not be surprised" if environmental groups file another 20 TMDL lawsuits against EPA in 1997. The TMDL program "is vulnerable legally and in court," he says. "Some of these activist organizations have discovered that, so they are making their move. I don't know why they didn't do it sooner, but they could have." .

— Michael Richman, WE&T

REGULATIONS

WEF, AMSA Want More Flexibility in Pretreatment Program

he Water Environment Federation (WEF) and the Association of Metropolitan Sewerage Agencies (AMSA) are collaborating in a stakeholder task force that is shaping recommendations proposed to streamline EPA's pretreatment rule into regulatory language.

The recommendations, developed at the WEF-AMSA Pretreatment Streamlining Workshop in August, are intended to create more flexibility and reduce costs for local authorities monitoring the pretreatment activities of industrial facilities that discharge to municipal plants. The goal is to complete the regulatory language by early spring so EPA can incorporate it into its proposed revisions to the National Pretreatment Program, says Margie Nellor, co-chair of the WEF Pretreatment Work Group.

The agency is not obligated to accept the recommendations, Nellor says, but because they originated through a multistakeholder process involving EPA, state and local government, industry, and environmental representatives, the recommendations should "carry a lot of weight." EPA plans to publish its proposed revisions in the Federal Register no later than the end of June, according to Pat Bradley, a biologist in the Permits Division of EPA's Office of Wastewater Management.

At the WEF-AMSA workshop, stakeholders formed administrative, technical, and "blue sky" recommendations.

EPA plans to publish its proposed revisions in the Federal Register no later than the end of June.

> Pat Bradley EPA's Office of Wastewater Management

the latter of which is a watershed-based approach to pretreatment using environmental goals and performance measures. The "blue sky" recommendations need to be "scoped out" somewhat and will be included in the proposed regulatory language to some extent, Nellor says.

One administrative action suggested by the group calls for control authorities, such as publicly owned treatment works (POTWs), to exempt categorical and noncategorical industrial facilities from the significant industrial user (SIU) definition if they do not "adversely" affect municipal plants or violate requirements. Such a policy would allow POTWs to determine the frequency of their inspections and sainple tests, Nellor says. Currently, local permitters must regulate as SIUs all noncategorical users with process flows of more than 95 m3/d (25,000 gal/d) and all categorically regulated dischargers, even though discharges from some facilities are "benign," she says.

The Metropolitan Water Reclamation District of Greater Chicago, which includes seven wastewater plants, treats discharges from 605 SIUs, says Rich Sustich, the district's industrial waste enforcement supervisor. A plastics molding plant that discharges about 0.38 m³/mo (100 gal/mo) of contact cooling water should not be classified as an SIU "because it has no measurable potential to impact our facility," he says.

