

Executive Summary

2006 Texas Water Quality Inventory and 303(d) List (June 27, 2007)

Background

The Texas Commission on Environmental Quality (TCEQ) works to protect the state's natural resources. In keeping with that mission, the TCEQ regularly monitors the condition of the state's surface waters, and assesses the status of water quality every two years. The TCEQ submits this assessment to the U.S. Environmental Protection Agency (EPA). The report is also published on the TCEQ Web site as the *2006 Texas Water Quality Inventory and 303(d) List*.

Requirements for the Inventory and List are codified in the federal Clean Water Act, Sections 305(b) and 303(d). Further requirements are set out in state law in Title 30 of the Texas Administrative Code (30 TAC), and in rules and guidance established by the TCEQ.

The assessment describes the status of all surface water bodies of the state that were evaluated for the given assessment period. The TCEQ uses data collected during the most recent five-year period in making its assessment. The data are gathered by many different organizations that all operate according to approved quality control guidelines and sample collection procedures. The quality of waters described represents a snapshot of conditions during the limited time period considered in the assessment. Water quality is dynamic and constantly changing.

Guidance for developing the assessment, which includes a description of the 303(d) process, is based on a set of methods that apply the surface water quality standards. These methods are developed by the TCEQ with the advice of a diverse group of stakeholders, and are detailed in the *2006 Guidance for Assessing and Reporting Surface Water Quality in Texas*. The 303(d) List is an important management tool produced as part of the assessment. It identifies waters for which the existing preventive measures—such as permits that limit discharges of wastewater and the technology used by the dischargers—are not sufficient to achieve water quality standards. The 303(d) List is subject to review and approval by the EPA.

Categories Indicate Water Quality Status

The Inventory and List assign each assessed water body to one of five categories to provide information to the public, EPA, and internal agency programs about water quality status and management activities (see Table 1). The categories indicate the status of the water body, and how the state will approach identified water quality problems.

Higher category numbers correspond to higher levels of effort required to manage water quality. For example, water bodies in Category 5 constitute the

303(d) List, and require remedial action by the state to restore water quality. For water bodies in Category 5a, the state must develop a scientific model called a *total maximum daily load* (TMDL) and a plan to implement it. Water bodies in Category 1 are meeting all their uses, and simply require routine monitoring and preventive action.

Further, these categories must be applied to each combination of designated use and criteria (or parameter) for determining support. The combination of the use with the pollutant or condition of concern is called an *impairment*. For example, the concentration of dissolved oxygen is one of the criteria used to determine the support of the aquatic life use. If dissolved oxygen concentrations are too low, one impairment for aquatic life use would exist for the water body under examination.

Since a water body has multiple uses, it may fall into different categories for different uses. In that case, the overall category for the water body is the one with the highest category number. A description of the categories, and the results, by category, for the 2006 assessment are illustrated in the table below.

Water Bodies Assigned to Each Assessment Category in the 2006 Water Quality Inventory						
Category	Definition	Number of Water Bodies	Stream/River Miles	Reservoir/Lake Acres	Estuary Square Miles	Ocean Coast Miles*
1	Attaining the water quality standard and no use is threatened.	9	341.40	104,628.00	277.40	0
2	Attaining some of the designated uses; no use is threatened; and insufficient or no data and information are available to determine if the remaining uses are attained or threatened.	369	11,667.94	886,943.10	1,111.59	0
3	Insufficient or no data and information to determine if any designated use is attained. Many of these water bodies are intermittent streams and small reservoirs.	With insufficient data: 131	3,261.02	6,448.00	0.01	0
		With no data: (Unknown number)	168,452.06	420,195.00	310.77	0
4	Standard is not supported or is threatened for one or more designated uses but does not require the development of a Total Maximum Daily Load (TMDL) .	17	265.60	25,594.00	29.13	0
5	The water body does not meet applicable water quality standards or is threatened for one or more designated uses by one or more pollutants.	399	7,239.98	550,791.90	664.10	388
Total Number of Water Bodies Assessed		794				
Total Number of Water Bodies Surveyed		925				
Total Water Body Sizes in Texas			191,228	1,994,600	2,393	388

* Ocean Coast Miles are calculated from ocean square miles divided by ten miles to the offshore limit.

Summary of the Assessment and 2006 303(d) List

For 2006, the TCEQ conducted a state-wide water quality assessment of 925 water bodies. A significantly greater number of water bodies were assessed than in previous years primarily, due to new monitoring data contributed by the Clean Rivers Program partners and their local cooperators.

As more water bodies and data have become available for assessment, there has been a 31% increase in the number of impairments on the 303(d) list. The largest net increase was for bacteria, an increase of about 60 %. Most of the new water bodies are small streams and this type of water body often does not support the criteria for bacteria. There is also a large increase in biological listings because these data, used to directly evaluate the health of aquatic communities, is increasingly available. Substantially more impairments will be delisted in 2006. Most are now identified as meeting criteria, the result of more complete and accurate data sets.

Summary of the Recent Changes to the 303(d) List between 2004 and 2006

	2004	2006	% Increase from 2004
<u>Water Bodies</u> Assessed	732	925	26
<u>Water Bodies</u> on the 303(d) List... TMDL may be required	306	399	30
<u>Impairments</u> on the List, Category 5... some water bodies have more than one	416	543	31
<u>Impairments</u> Removed from the List	34	77	126
<u>Impairments</u> in Category 4 ... TMDL approved or not required	48	60	25

For More Information

The Texas Water Quality Inventory and 303(d) List is compiled and published on the TCEQ web page at:

<http://www.tceq.state.tx.us/compliance/monitoring/water/quality/data/06twqi/twqi06.html>

The water quality management program and role of the 303(d) List in agency planning is described in the publication "Preserving and Improving Water Quality", available on the TCEQ Web page at:

http://www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/gi/gi-351.html