

## Executive Summary

### 2010 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d) (Pqxgo dgt '3: .4233)

#### Background

The Texas Commission on Environmental Quality (TCEQ) in keeping with its mission to protect the state's natural resources regularly monitors the condition of the state's surface waters and assesses water quality. The *Texas Integrated Report for Clean Water Act, Sections 305(b) and 303(d)* is a statewide report on the status of state surface waters and is prepared and submitted to the U.S. Environmental Protection Agency (EPA) every two years. The report is also published on the TCEQ Web site.

The report describes the condition of all surface water bodies of the state that were evaluated for the given assessment period. The data are gathered by many different organizations that all operate according to approved quality assurance guidelines and sample collection procedures. The quality of waters described in the Integrated Report represents a periodic snapshot of conditions over 7-10 years.

Requirements for the Integrated Report 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 guidance used to prepare the Integrated Report is based on a set of methods that apply the Texas Surface Water Quality Standards (30 TAC §307) to ambient water quality data. These methods are developed by the TCEQ with the advice of a diverse group of stakeholders, and are detailed in the *2010 Guidance for Assessing and Reporting Surface Water Quality in Texas*.

TCEQ accepted public comments on the 2010 Integrated Report from February 8<sup>th</sup> through March 5<sup>th</sup>, 2010. Summaries of the comments and the TCEQ's responses are included with the submittal of the Integrated Report and are available on the agency website. Following review of the documentation, the Commission provides approval for staff to submit the report to EPA. EPA reviews and approves the proposed Integrated Report.

#### Focus for the 2010 Assessment

The TCEQ has prepared a comprehensive assessment in 2010 by evaluating 374 classified and 840 unclassified water bodies (1,066 of these water bodies had sufficient data to provide an evaluation of the use attainment status). The Commission relied on cooperators; such as, local, state, or federal agencies, and water program staff who provided additional information for this assessment. The TCEQ included data collected during the most recent seven-year period (December 1, 2001 to November 30, 2008) and up to ten years, if needed, to attain a minimum number of samples for assessment.

#### Categories Indicate Water Quality Status

The Integrated Report describes the water quality status of Texas surface waters and management activities to the public, EPA, and internal agency programs. The five-part categorization of waters (see table below) is an important tool for water quality management throughout the State. Within this

framework, higher category numbers correspond to increased levels of effort required to manage water quality. Water bodies identified in Category 5, called the 303(d) List, represent situations where water quality criteria are not attained and water quality management actions and/or water quality standards revisions are needed to address the issue. Water bodies in Category 1 are meeting all their uses, and simply require routine monitoring and preventive action.

Each water body is assigned uses and criteria (or parameters) consistent with the Texas Water Quality Standards that are evaluated against ambient water quality data for determining support, or attainment of the use. When included in Categories 4 or 5, the combination of the water body, use, and 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 the assessment of dissolved oxygen data in a specific water body indicates that concentrations are lower than the assigned criteria, this would represent a single impairment of the aquatic life use.

### Water Bodies Assigned to Each Assessment Category in the 2010 Integrated Report

Category	Definition
1	Attaining the water quality standard and no use is threatened.
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.
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.
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). All TMDLs have been completed and approved by EPA. Other control requirements are reasonably expected to result in the attainment of all standards. Nonattainment is shown to be <b>caused by pollution</b> , not by pollutants and that the water quality conditions cannot be changed by the allocation and control of pollutants through the TMDL process.
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. TMDLs are underway, scheduled, or will be scheduled for one or more parameters. A review of the standards for one or more parameters will be conducted before TMDLs are scheduled. Additional data or information will be collected for one or more parameters before TMDLs are scheduled.

### Summary of the 2010 Integrated Report

The 2008 Integrated Report focused primarily on the classified segments, which are described in Appendix A of the Texas Water Quality Standards with designated uses and criteria. The 2010 Integrated Report, by contrast included a comprehensive water quality evaluation of 1214 classified and unclassified water bodies throughout the State (freshwater streams, reservoirs, tidal streams, bays, estuaries, and the Gulf of Mexico), assessing all readily available data of known quality. This resulted in more new impairments included in Category 5 of the 2010 Integrated Report (Attachment) as compared to 2008.

The attachment summarizes the results for the impaired water bodies identified in Category 5 (303(d) List) in the 2010 Integrated Report. One hundred and eighty-one impairments were added in 2010 while 76 were removed. A total of 621 impairments are now included in Category 5. Impairments due to elevated bacteria represented the highest percentage (51%) of included in Category 5. Dissolved oxygen and organics in fish tissue had the next highest (15% each) percentages. Overall, the number of segments assessed between 2008 and 2010 increased by approximately 60%; however, the net increase in impairments on the 303(d) List was only 17%.

## **For More Information**

The Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d) is compiled and published on the TCEQ Web site page at:

<http://www.tceq.state.tx.us/compliance/monitoring/water/quality/data/10twqi>

The water quality management program and role of the Integrated Report in agency planning is described in the publication “Preserving and Improving Water Quality”, available on the TCEQ Web site at:

[http://www.tceq.state.tx.us/comm\\_exec/forms\\_pubs/pubs/gi/gi-351.html](http://www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/gi/gi-351.html)

**Attachment  
2010 Assessment Results – Category 5**

		<b>Water Bodies Evaluated Water Bodies Assessed</b>	<b><u>2008</u> 925 425 (segments)</b>	<b><u>2010</u> 1214 1066 (segments)</b>		
<b>Impairment Parameters by Type</b>	<b>Media</b>	<b>Use</b>	<b>2008 Total Number of Segment Impairments</b>	<b>2010 Total Number of Segment Impairments</b>	<b>2010 New Segment Impairments</b>	<b>2010 Segment Delistings</b>
Bacteria	In water	Recreation	274	303 <sup>1</sup>	75 <sup>1</sup>	46 <sup>2</sup>
	In shellfish	Oyster Waters	21	15	0	6 <sup>3</sup>
	Beaches	Beach Use	2 <sup>4</sup>	1(2 beaches)	1	0
Dissolved Oxygen	In water	Aquatic Life	84	94	13	3
Toxicity	In ambient water	Aquatic Life	5	2	0	3 <sup>5</sup>
	In ambient sediment		6	6	0	0
Organics	In water	Fish Consumption, Aquatic Life	0	0	0	0
	In fish/shellfish		34	94	60 <sup>6</sup>	0
Metals (except Mercury)	In water	Fish Consumption, Oyster Waters, Aquatic Life	4	6 <sup>7</sup>	5	3
	In fish/shellfish		0	0	0	0
Mercury	In water	Fish Consumption, Oyster Waters, Aquatic Life	1	1	0	0
	In fish/shellfish		17	23	6 <sup>6</sup>	0
Dissolved Solids	Chloride	General	16	13	2	5
	Sulfate		6	9	4	1
	Total dissolved solids		8	13	7	2
Temperature	In water	General	0	0	0	0
pH	In water	General	16	17	1	0
Nutrients - Nitrogen	In water	General, Public Water Supply	0	0	0	0
Biological	Habitat, macrobenthos community, or fish community	Aquatic Life	24	24	7	7 <sup>8</sup>
<b>Totals</b>			518	621	181	76

1-Excludes (9) water bodies exceeding the only the single sample criterion due to the elimination of this method in the revised Texas Surface Water Quality Standards (TSWQS) that were adopted by the TCEQ on June 30, 2010. Includes 28 recreational use impairments with geometric means between 126 cfu/100mL and 206 cfu/100mL originally deferred on the 2010 303(d) List released for public comment. These water bodies are now included because the 126 cfu/100 mL FW E.Coli geomean criterion was retained when the TSWQS were adopted.

2-Reflects (28) bacteria impairments that have been moved to Category 4 based on approved TMDLs. Also reflects the placement of Plum Creek in Category 4b.

3-Reflects (6) bacteria in oyster water impairments that have been moved to Category 4a based on an approved TMDL.

4-Listings based on federal promulgation in 2008, which are included as (2) Assessment Units in (1) water body.

5-Reflects (3) delistings of Sabine River Basin ambient toxicity listings.

6-Based on the Department of State Health Services Fish Tissue Advisories. Includes 8 additional impairments not included on the 2010 303(d) List released for public comment in February 2010.

7-Reflects exclusion of (30) dissolved metal potential impairments due to collection methods that are under investigation by the EPA.

8-Reflects the application of newly adopted biotic integrity assessment methods.