

Review of Texas' 2008 Section 303(d) Water Body List

Date of Transmittal Letter from State: March 31, 2008

Date of Receipt by EPA: April 1, 2008

I. Statutory and Regulatory Background

A. Identification of WQLSs for Inclusion on Section 303(d) List

Section 303(d)(1) of the Clean Water Act (CWA) directs States to identify those waters within its jurisdiction for which effluent limitations required by section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of section 303(d).

EPA regulations provide that States do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the CWA, (2) more stringent effluent limitations required by State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. See 40 C.F.R. §130.7(b)(1).

B. Consideration of Existing and Readily Available Water Quality-Related Data and Information

In developing section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any section 319 nonpoint assessment submitted to EPA. See 40 C.F.R. §130.7(b)(5). In addition to these minimum categories, States are required to consider any other data and information that is existing and readily available. EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available. See Guidance for Water Quality-Based Decisions: The TMDL Process, EPA Office of Water, 1991,

Appendix C (“EPA’s 1991 Guidance”). While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 C.F.R. §130.7(b)(6) require States to include as part of their submissions to EPA documentation to support decisions to rely or not rely on particular data and information and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; (3) a rationale for not using existing and readily available data and information; and (4) any other reasonable information requested by the Region.

C. Priority Ranking

EPA regulations also codify and interpret the requirement in section 303(d)(1)(A) of the CWA that States establish a priority ranking for listed waters. The regulations at 40 C.F.R. §130.7(b)(4) require States to prioritize waters on their section 303(d) lists for TMDL development, and also to identify those water quality limited segments (WQLSs) targeted for TMDL development in the next two years. In prioritizing and targeting waters, States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. See section 303(d)(1)(A). As long as these factors are taken into account, the CWA provides that States establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and state or national policies and priorities. See 57 FR 33040, 33045 (July 24, 1992), and EPA’s 1991 Guidance.

II. A Description of the State of Texas' Final Submission

EPA Region 6 received the *Draft 2008 Texas Water Quality Inventory and 303(d) list* on April 1, 2008. The Texas Commission on Environmental Quality (TCEQ) submitted the final list along with supporting documentation that included the following:

- *2008 Guidance for Assessing and Reporting Surface Water Quality in Texas*, describing the data used to prepare the 2008 Texas Water Quality Inventory and section 303(d) list, as well as the screening and assessment methods used in evaluating the data;
- *Draft 2008 Water Quality Inventory and 303(d) List – Response to Public Comment*, which includes TCEQ's responses and a summary of any actions taken in response to each public comment received during the public comment period of December 21, 2007 to January 31, 2008.
- *2008 Water Body Assessments by Basin*, which includes assessment data used to determine use support for all water bodies assessed in 2008.
- *Executive Summary: 2008 Texas Water Quality Inventory and Section 303(d) List*, which provides background on the State's integrated report, a summary of the categories to which water bodies were assigned, and a summary of recent changes to the 303(d) list between 2006 and 2008.
- *Use Support Summary: 2008 Texas Water Quality Inventory and Section 303(d) List*, which describes monitoring and assessment information compiled for each of Texas's major water body types: streams, reservoirs, estuaries, and gulf waters as well as overall use attainment status of uses for each of the water body types.
- *Monitoring Program: 2008 Texas Water Quality Inventory and Section 303(d) List*, which describes the State's monitoring framework and the key objectives that it is designed to achieve.
- *Status of Texas Coastal Beaches: An Assessment of Texas Beach Watch Program Data*
- *Draft 2008 Texas Water Quality Inventory Water Bodies Evaluated*, a list of all water bodies assessed in 2008.
- *Draft 2008 Texas Water Bodies and Parameters Removed from the 303(d) List*, including the reasons for their removal.

- *Draft 2008 Water Bodies and Impairments Added to the Texas 303(d) List, including the subcategory in category 5 to which they were assigned.*
- *Draft 2008 Texas Water Quality Inventory: Water Bodies with Concerns for Use Attainment and Screening Levels*
- *Draft 2008 Texas Water Quality Inventory: Sources of Impairments and Concerns*
- *Schedule to Develop TMDLs in 2008-2009 for Category 5a Water Bodies showing the schedule of planned TMDL submission;*
- Electronic data files summarizing the assessment results for EPA's Assessment Database, including:
 - Designated uses.
 - Summary of the attainment status for each designated use.
 - Description of the water body.
 - Assigned category for each assessment unit.
 - Parameters not meeting water quality standards (WQSs).
 - Sources identified with each parameter which did not meet WQSs.

III. Analysis of the State of Texas' Submission

A. Identification of Waters and Consideration of Existing and Readily Available Water Quality-Related Data and Information

EPA reviewed the State's submission, and concludes that the State developed its section 303(d) list in partial compliance with section 303(d) of the Act and 40 C.F.R. §130.7. Because EPA has determined that Texas' 2008 303(d) list does not include all waters that meet §303(d) listing requirements, EPA is partially approving and partially disapproving Texas' list submission and proposing to add one (1) additional water body and pollutant to the final 2008 list. EPA's review is based on its analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters that are required to be listed.

According to the *2008 Guidance for Assessing and Reporting Surface Water Quality in Texas*, TCEQ considered all existing and readily available water quality-related data and information to develop the list. The list was developed based primarily on the data available in the TCEQ integrated database. The TCEQ integrated database includes data collected by TCEQ, the U. S. Geological Survey, the Texas Department of State Health Services (TDSHS), the Texas Parks and Wildlife Department, the Texas State Soil and Water Conservation Board, and the Texas Clean Rivers Program Planning Agencies (and associated partners). Other

routine data and information was considered from sources such as fish consumption advisories, aquatic life closures, and oyster waters closures issued by TDSHS as well as the Chemical Monitoring System database of the TCEQ Water Utilities Division. TCEQ also solicited data and information during a formal public comment period from December 21, 2007 to January 31, 2008. TCEQ posted a draft list and supporting documentation on the TCEQ website for public review during this comment period.

EPA reviewed TCEQ's description of the data and information it considered and its methodology for identifying waters. The State indicated "the value and accuracy of all data are evaluated by the TCEQ water quality staff." For those waters being approved on the 2008 section 303(d) list, EPA concludes that the State properly assembled and evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 C.F.R. §130.7(b)(5).

In addition, the State provided its rationale for not relying on particular existing and readily available water quality-related data and information as a basis for listing waters in the submitted document *Draft 2008 Water Quality Inventory and 303(d) List – Response to Public Comments*. TCEQ considered all data, information, and public comments received during the public comment period. However, there were some restrictions regarding time and data quality. TCEQ generally only considers data collected during the most recent seven-year assessment period. The State's decision to restrict the use of data and information for these reasons is reasonable and appropriate. The State also requires that data be collected under a TCEQ-approved quality assurance project plan or that documentation of the quality assurance methodology be made available for TCEQ to evaluate.

The State has demonstrated, to EPA's satisfaction, good cause for not including on its 2008 section 303(d) list all waters found in the document *Draft 2008 Texas Water Bodies and Parameters Removed from the 303(d) List*. This document identifies one of the following reasons for no longer listing each of 59 water body segment-pollutant pairs on the 2008 section 303(d) list:

- 1) A TMDL has been developed by TCEQ and approved by EPA for this parameter (Category 4a).
- 2) Expected to meet water quality standards in the near future due to other State, local, or federal requirements (Category 4b).

- 3) Non-support of the water quality standards is not caused by a pollutant and cannot be addressed by a TMDL (Category 4c).
- 4) The most recent set of data demonstrates that water quality standards are now met.
- 5) Meets a revised water quality standard.
- 6) Because of a new procedure for listing and based on a review of data used in the original listing, the applicable water quality standards are now met.
- 7) Error in the basis for the original listing.
- 8) The water body ID of this water body changed, because of a correction or a new segment.

As provided in 40 C.F.R. §130.7(b)(6)(iv), EPA requested that the State more fully demonstrate good cause for not including on the 2008 section 303(d) list several specific waters identified in the document *Draft 2008 Texas Water Bodies and Parameters Removed from the 303(d) List* as well as other specifically identified waters not currently on the draft 2008 list for which data were existing and readily available. In response, the State promptly provided additional data and information on these waters. EPA finds that the State has generally demonstrated good cause to remove waters from the 2008 section 303(d) list or to not otherwise add specifically identified waters to the list. However, EPA has noted one exception to this finding, as discussed below. All such information pertaining to the State's "good cause" demonstration for several specifically identified waters is found in the administrative record for the 2008 section 303(d) list action. A brief discussion of EPA's action to disapprove the exclusion of one (1) water body of note from the 2008 list is provided below.

Assessment of Texas Beach Watch Program Data

In *Status of Texas Coastal Beaches: An Assessment of Texas Beach Watch Program Data*, an addendum to the 2008 Texas Water Quality Inventory, TCEQ provides an excellent review of Texas Beach Watch program data collected between 2003 and 2006. The Texas Beach Watch program is managed by the Texas General Land Office (GLO) via a grant provided under section 406 of the CWA (section 406 was added to the CWA with passage of the BEACH Act of 2000). Under this program, samples are collected by GLO contractors at all high use coastal beaches in the State and public advisories are posted by local officials when

enterococci cell densities exceed 104cfu/100ml. Such data have been collected since 2003.

In EPA's review of this report, it was noted that the geometric mean of enterococci cell densities analyzed in samples collected over the assessment period (2003 – 2006) at 5 GLO beach monitoring sites in Corpus Christi Bay exceeded the State's geometric mean criterion (35 colony forming units (cfu)/100ml) for the protection of contact recreation uses in saltwater. These beach monitoring sites included 3 sites at Cole Park (NUE031, NUE032, and NUE033) and 2 sites at Ropes Park (NUE028 and NUE029) within the city limits of Corpus Christi, Texas. Geometric means of enterococci samples collected at these sites ranged from 35.5 to 120.2 cfu/100ml. These sites lay within the boundaries of segment 2481 (Corpus Christi Bay) and assessment unit 2481_01 (Corpus Christi Bay - Entire Segment). EPA considers all GLO data to be "existing and readily available water quality-related data" relating to the categories of waters specified in 40 C.F.R. §130.7(b)(5). As such, EPA believes that these data should be assembled and evaluated for possible inclusion of beach waters on the State's 303(d) list.

GLO's Texas Beach Watch data were not considered in the formulation of the State's Draft 2008 303(d) list. TCEQ acknowledges that coastal beach data should be assessed and that impaired waters proximate to coastal beaches be considered for inclusion on the State's 303(d) list. However, TCEQ's position is that it has not yet developed appropriate protocols for assessing both beach monitoring and advisory data in its assessment guidance and that listing based on present data would be premature.

EPA acknowledges that the State's assessment guidance lacks a specific implementation procedure for assessing Texas Beach Watch data for 303(d) listing purposes. However, EPA believes that enterococci data collected by GLO are adequate for assessment using TCEQ's current assessment guidance as applied in other waters of the State with contact recreation uses. Presently, TCEQ's *2008 Guidance for Assessing and Reporting Surface Water Quality in Texas* provides that a "recreation use is not supported if the geometric average of the samples collected over the assessment period (two to five years) exceeds the criterion..." EPA believes that this assessment approach is consistent with language in the State's water quality standards which require that the "geometric mean of Enterococci should not exceed 35 per 100 ml." EPA has chosen to utilize this same approach, used in other ambient waters in the State, to assess enterococci data collected from waters proximate to coastal Texas beaches.

As noted above, there is only one assessment unit within segment 2481 and this assessment unit is presently equivalent in coverage to the segment as a whole. The 5 beach sites where enterococci cell densities

were observed above the State's geometric mean criterion make up only a relatively small, though somewhat contiguous, portion of the overall segment (Corpus Christi Bay). There are numerous other beach monitoring sites within Corpus Christi Bay that GLO manages as well. However, none of these additional sites were out of compliance with water quality standards during the assessment period. EPA believes that it would be most appropriate to list only impaired portions of Corpus Christi Bay but TCEQ has not yet taken official action to sub-divide the Bay into assessment units to make this possible at the present time. Therefore, today's action to list for bacteria (enterococci) applies to segment 2481 (assessment unit 2481_01) as a whole until such time that the State decides whether and how to sub-divide and assign assessment units within the segment to more accurately reflect the affected area.

By virtue of EPA's action to include Corpus Christi Bay on the 2008 303(d) list, EPA is also required to provide a priority ranking for TMDL development to this water body. Until such time that TCEQ proposes a management strategy for this water counter to that provided for waters found in category 5a of the State's integrated report, EPA will assign a category of 5a to assessment unit 2481_01. See Section III.B below for a description of the State's priority ranking and targeting approach for listed waters.

Waters to be delisted pursuant to 40 CFR 130.7(b)(1)(iii)

EPA regulations recognize that alternative pollution control requirements may obviate the need for a TMDL. Segments are not required to be included on the section 303(d) list if technology based effluent limitations required by the Act, more stringent effluent limitations required by state, local, or federal authority, or "[o]ther pollution control requirements (e.g., best management practices) required by local, State or Federal authority" are stringent enough to implement applicable water quality standards (see 40 CFR 130.7(b)(1)) within a reasonable period of time.

The State has demonstrated that there are other pollution control requirements required by State, local, or federal authority that will result in attainment of water quality standards in assessment unit 1913_02 (Mid Cibolo Creek). Waters removed from the 303(d) list on the basis that alternative pollution control requirements will result in water quality standards attainment are placed into category 4B of the State's integrated 303(d)/305(B) report. TCEQ provided to EPA its rationale for placing the above water body into category 4B of the State's integrated report consistent with the 6-part guidelines provided in EPA's 2006 integrated report guidance (EPA 2005) and Attachment 2 of EPA's 2008 integrated report guidance (EPA 2006). EPA believes these rationales adequately demonstrate how other pollution control requirements will eventually lead to water quality standards attainment in a reasonable period of time.

These rationales are found in the administrative record for the 2008 section 303(d) list approval action. Table 1 provides a brief summary of other pollution control requirements being implemented in the affected water body.

Table 1: Water body to be delisted pursuant to 40 CFR 130.7(b)(1)(iii) and summary of other pollution control requirements

SegID	Affected Area	Segment Name	Pollutant	Other Pollution Control Requirement
1913	1913_02	Mid Cibolo Creek	Depressed dissolved oxygen	TCEQ enforcement action resulted in significant improvements to wastewater treatment facility discharging to Mid Cibolo Creek; implementation of stormwater management programs in surrounding areas.

Nonpoint Sources

The State properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with EPA guidance. Section 303(d) lists are to include all WQLSs still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. EPA’s long-standing interpretation is that section 303(d) lists apply to waters impacted by point and/or nonpoint sources. This interpretation has been described in EPA guidance, and most recently in a 1997 memorandum clarifying certain requirements for 1998 section 303(d) lists. See EPA’s 1991 Guidance, and Memorandum from Mr. Robert H. Wayland III, Director, Office Wetlands, Oceans, and Watersheds, Office of Water, EPA Headquarters, to Water Division Directors, Regions I - X, and Directors, Great Water Body Programs, and Water Quality Branch Chiefs, Regions I - X, “National Clarifying Guidance For 1998 State and Territory section 303(d) Listing Decisions”, Aug. 17, 1997. In addition, this interpretation of section 303(d) lists is described in detail in a May 23, 1997, memorandum from Mr. Geoffrey Grubbs, Director of the Assessment and Watershed Protection Division, EPA Office of Water, to the FACA Workgroup on section 303(d) Listing Criteria. See Memorandum from Geoffrey H. Grubbs, Director, Assessment and Watershed Protection Division, to FACA Workgroup on section 303(d) Listing Criteria, “Nonpoint Sources and section 303(d) Listing Requirements”, May 23, 1997. See also Memorandum from Mr. Robert Perciasepe, Assistant Administrator, Office of Water, to Regional Administrators and Regional Water Division Directors, “New Policies for Establishing and Implementing TMDLs”, August 8, 1997.

B. Priority Ranking and Targeting

EPA also reviewed TCEQ's priority ranking of listed waters for TMDL development, and concludes that the State properly took into account the severity of pollution and the uses to be made of such waters. As described in the State's assessment guidance, waters listed in category 5 of the integrated report, which constitute the State's 303(d) list, are subdivided into 3 subcategories: 5a, 5b, and 5c. These subcategories represent TCEQ's method for assigning priorities for the development of TMDLs. Subcategory 5a is the group with the highest priority for TMDL development, followed by 5c with medium priority and 5b with the lowest priority. Subcategory 5a is reserved for waters in which a TMDL is underway, scheduled, or will be scheduled. Subcategory 5b is reserved for waters in which a review of the water quality standard will be conducted prior to the development of a TMDL. Subcategory 5c is reserved for waters in which additional data or information will be collected prior to the development of a TMDL. In Table 2 of the document *Preserving and Improving Water Quality*, the State has identified the ranking criteria used to assign priorities for those waters scheduled for TMDL development. The six most important factors in ranking water bodies are as follows:

- Whether the impaired use is a threat to human health, aquatic life, or both.
- The availability of data, information, and tools (such as models).
- The degree of local and regional support for implementing a TMDL.
- The relationship of a listed impairment to others.
- Proximity to other impaired waters.
- What year the impaired water was originally placed on the 303(d) list.

In addition, EPA reviewed the State's identification of WQLSs targeted for TMDL development in the next two years, and concludes that the targeted waters are appropriate for TMDL development in this time frame. As of February 26, 2008, TMDLs for 86 water body segments (88 waterbody segment/pollutant pairs) were targeted for completion in calendar years 2008 or 2009. TMDL projects on many additional segments are underway, but are targeted for completion after calendar year 2009.

C. Consideration of waters within Indian Country

EPA's approval of Texas's section 303(d) list extends to all water bodies on the list with the exception of those waters that are within Indian Country, as defined in 18 U.S.C. section 1151. EPA is taking no action to approve or disapprove the State's list with respect to those waters at this time. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under section 303(d) for those waters.

IV. Administrative Record Supporting This Action

In support of this decision to approve the State's listing decisions, EPA carefully reviewed the materials submitted by the State with its section 303(d) listing decision. The administrative record supporting EPA's decision is comprised of the materials submitted by the State, copies of section 303(d), associated federal regulations, and EPA guidance concerning preparation of section 303(d) lists, and this decision letter and supporting reports. EPA determined that the materials provided by the State with its submittal and subsequently requested information included sufficient documentation to support our analysis and findings that the State listing decisions meet the requirements of the Clean Water Act and associated federal regulations. According to EPA's 1991 Guidance: "Documentation for listing should...provide a description of the methodologies used to develop the list, a description of the data and information used to identify water quality-limited waters, and a rationale for any decision to not use any one of the categories listed in [Appendix C](#). It is not expected that each and every waterbody listed by a State be accompanied by the detailed documentation as described." The State has met these requirements for the 2008 list.

V. References

EPA 2006 Information Concerning 2008 Clean Water Act Section 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions, EPA Office of Water, October 2006.

EPA 2005 Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act, EPA Office of Water, July 2005.

EPA 1997a May 23, 1997, memorandum from Mr. Geoffrey H. Grubbs, Director, Assessment and Watershed Protection Division, to FACA Workgroup on Section 303(d) Listing Criteria, "Nonpoint Sources and Section 303(d) Listing Requirements".

EPA 1997b August 8, 1997, memorandum from Mr. Robert Perciasepe, Assistant Administrator, Office of Water, to Regional Administrators and Regional Water Division Directors, "New Policies for Establishing and Implementing TMDLs".

EPA 1997c August 17, 1997, memorandum from Mr. Robert H. Wayland III, Director, Office Wetlands, Oceans, and Watersheds, Office of Water, EPA Headquarters, to Water Division Directors, Regions I - X, and Directors, Great Water Body Programs, and Water Quality Branch Chiefs, Regions I - X, regarding "National Clarifying Guidance For 1998 State and Territory Section 303(d) Listing Decisions."

EPA 1997d September, 1997, guidance from Office of Water, Headquarters, U.S. EPA regarding *Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement*, EPA-841-B-97-002B

EPA 1993 November 26, 1993, memorandum from Mr. Geoffrey Grubbs, Director, Assessment and Watershed Protection Division, Office of Water, EPA Headquarters, to Water Quality Branch Chiefs, Regions I - X, and TMDL Coordinators, Regions I - X, regarding "Guidance for 1994 Section 303(d) Lists."

EPA 1992a July 24, 1992, Federal Register Notice, *40 C.F.R. Parts 122, 123, 130*, revision of regulation, 57 Fed. Reg. 33040

EPA 1992b August 13, 1992, memorandum from Mr. Geoffrey Grubbs, Director, Assessment and Watershed Protection Division, Office of Water, EPA Headquarters, to EPA Water Quality Branch Chiefs, Regions I - X and TMDL Coordinators, Regions I - X, regarding "Supplemental Guidance on Section 303(d) Implementation."

EPA 1992c October 30, 1992, memorandum from Mr. Geoffrey Grubbs, Director, Assessment and Watershed Protection Division, Office of Water, EPA Headquarters, to Water Quality Branch Chiefs, Regions I - X, regarding "Approval of 303(d) Lists, Promulgation Schedules/Procedures, Public Participation."

EPA 1991 Guidance for Water Quality Based Decisions: The TMDL Process. EPA 440/4-91-001 U.S. Environmental Protection Agency, Office of Water, Washington, DC.

EPA 1985 January 11, 1985, Federal Register Notice, 40 C.F.R. Parts 35 and 130, Water Quality Planning and Management: Final Rule, 50 Fed. Reg. 1774.

EPA 1978 December 28, 1978, Federal Register Notice, Total Maximum Daily Loads Under Clean Water Act, finalizing EPA's identification of pollutants suitable for TMDL calculations, 43 Fed. Reg. 60662.

Texas Administrative Code, Title 30, Part 1, Chapter 307, Rule §307.7 "Site-Specific Uses and Criteria".

(Note: The above list of documents was used directly or indirectly as a basis for EPA's review of the State's section 303(d) water body list. This list is not meant to be an exhaustive list of all records reviewed and does not constitute the official administrative record for this decision. Its purpose is to provide the primary documents the Region relied upon in making its decision to partially approve/disapprove the State's list.)