

Surface Water Quality Monitoring Guidance Advisory Workgroup Meeting–June 16, 2011

Topic Abstracts

2010 Integrated Report (IR) Summary and 2012 Process and Goals

The 2010 IR was submitted to the U.S. Environmental Protection Agency (EPA) on September 18, 2010. This document included an assessment of data collected from 2001 through 2008, and a total of 925 water bodies were evaluated. One hundred eighty-one new impairments were identified statewide, with the majority being related to bacteria and to organic substances in fish tissue resulting from fish advisories. Seventy-six impairments were removed from the 303(d) list (predominantly bacteria) for a variety of reasons such as (1) additional data collection demonstrating water quality standards compliance, and (2) implementation of water quality management measures. The 2010 IR also includes a summary of use support, an evaluation of reservoir conditions, and a schedule for development of total maximum daily loads (TMDLs). The 2010 IR is currently pending approval by the EPA and planning for the development of the 2012 IR is underway. The process for developing the IR is specified in a document entitled *Guidance of Assessing and Reporting Surface Water in Texas* (Guidance). At the Guidance Advisory Workgroup meeting on June 16, 2011, staff of the Texas Commission on Environmental Quality (TCEQ) will provide updates on key information affecting the IR and take input on the 2012 Guidance.

Water Quality Standards Status Update

The Texas Surface Water Quality Standards (TSWQS) in Title 30, Chapter 307 of the Texas Administrative Code (TAC) describe the chemical, physical, and biological conditions to be attained in the surface waters of Texas. TSWQS are periodically revised to adjust uses and criteria of individual water bodies, to incorporate new scientific data on the effects of specific chemicals and pollutants, and to address new provisions in the Texas Water Code (TWC), federal regulations, and EPA guidance. At the June 30, 2010 TCEQ Commission agenda, the Commissioners adopted revisions to the TSWQS. The 2010 TSWQS became effective as a state rule on July 22, 2010. Major revisions included additional recreational use categories, new and revised toxic criteria, numerical nutrient criteria for 75 reservoirs, and revised uses and/or criteria for numerous water bodies based on site-specific studies.

The 2010 TSWQS revisions and supporting documentation were submitted to EPA for review and approval on August 4, 2010. EPA provides notice to TCEQ whenever approval or other actions are taken on portions of the revised standards. EPA must approve the 2010 TSWQS in order for them to be used for federal permitting programs and other Clean Water Act (CWA) purposes such as the development of the IR. During EPA's review of the 2010 TSWQS, both the 1997 and 2000 TSWQS will continue to be used in federal permitting programs such as the Texas Pollutant Discharge Elimination System (TPDES) program.

Major Revisions to Standards and Assessment

Contact Recreation

The 2010 TSWQS revisions incorporated changes to recreational uses to allow for consideration of existing uses when establishing criteria. Additional subcategories of recreational uses were incorporated along with methods for determining the appropriate use.

These changes and others will have an impact on the 2012 IR and the Guidance will need to be revised to incorporate these revisions. At the June 16, 2011 meeting, input will be solicited on options for incorporating evaluations of variability of recreational indicators in order to reduce uncertainty associated with attainment determinations of recreational use.

Nutrients

Numeric nutrient criteria have been included in the TSWQS revisions for 75 reservoirs based upon levels derived from a historic evaluation of chlorophyll *a*. Input will be requested concerning proposed methods to evaluate use attainment based on the criteria that will consider chlorophyll *a* data as well as representative conditions associated with each of the reservoirs. The identification of nutrient concerns for certain water bodies will also be discussed.

Near Surface and Mixed Surface Layer

In some cases, the TSWQS include specifications for depths at which samples need to be collected to be spatially representative. This is necessary to ensure that water quality standards attainment is determined based on ambient conditions and the conclusions are valid. Many water quality assessments include consideration of the depth at which samples are collected, and the 2010 IR Guidance includes data sample depth considerations when determining attainment. For 2012, the TCEQ is clarifying the existing practices and seeking additional input on the current methods employed for determining data suitability.

Dissolved Oxygen

East Texas Assessments

The approved 2000 TSWQS included calculations and considerations for assessing aquatic life uses in East Texas. This information is compiled in Section 307.7 (Table 4) of the TSWQS and includes considerations for acceptable site specific dissolved oxygen criteria in low gradient streams. Prior to the 2012 IR, this information has not been included as part of the use attainment for aquatic life. Due to enhanced GIS tools and revised methods for calculating dissolved oxygen criteria, the assessment can now accommodate these calculations based on physical site specific attributes. Input will be requested concerning the data and methods used to compute this information.

Conditional and Seasonal Assessments

The 2000 TSWQS include specifications for addressing seasonal and flow-based considerations for adjusting dissolved oxygen criteria. Prior to the 2012 IR the Surface

Water Quality Monitoring (SWQM) program had limited capabilities for implementing these evaluations in making attainment decisions. Data assessment tools now provide a means to include these specifications and increase the ability to accurately assess use attainment. The TCEQ will be seeking input on the incorporation of this information into the existing methodologies specified in the 2010 Guidance.

Toxic Criteria

The 2010 TSWQS include revisions to both human health and aquatic life based criteria for toxic pollutants. Recalculations of the human health criteria incorporated a higher assumed rate of fish consumption as well as consideration of childhood exposure. In addition, new tissue based criteria have been included for mercury and several organic compounds. The TCEQ will seek input on whether assessing compliance with these new tissue based criteria will require any changes in the Guidance.

Results Below the Limit of Quantitation

Current methods to evaluate all available information include considerations for data that have been analyzed and found to be below laboratory limits of quantitation for some parameters. This has provided the ability to maximize the use of data and make use attainment determinations utilizing small datasets. The framework that was included in the 2010 IR will be discussed. The TCEQ SWQM program will provide examples of the existing methodology and request input from the advisory group concerning the current practice. In addition, TCEQ will seek input on new methods to analyze and interpret this type of data as part of future assessments.