

Major Changes to the 2010 Assessment Guidance

New Assessment Guidance Sections

The following sections were added to the 2010 assessment guidance:

Determining Aquatic Life Use Standards Attainment

(Chapter 3—Fish and Benthic Community Assessment, page 3-23 and Appendix E)

When assessing aquatic life use in a water body for which the ALU Category (high, intermediate, limited, etc.) was established without bioassessments, the highest ALU category indicated by either the fish or benthic macroinvertebrates will be compared to the designated or presumed use, to determine support. This is consistent with the findings of the least disturbed streams study that the ALU indicated by each assemblage may differ from the other. In these cases, the water body will be identified as a concern, and an effort will be undertaken to properly define the ALU category for both assemblages for future assessments. If neither assemblage support the designated, or presumed use, the water body will be listed. This will have the result of reducing the possibility of inappropriately listing a water body as a result of natural inherent differences between the integrity of the fish and benthic assemblages.

When the ALU category was established based on a UAA developed using biological data, and the methods used in the UAA are current, the assessment should be consistent with the findings of the UAA for each assemblage. For example, if a high ALU category was established based primarily on fish, and the benthics IBI results were in a intermediate ALU category, then the fish will be assessed against the criterion for high ALU, and the benthics will be assessed against the criterion for intermediate ALU. This will reduce the likelihood of missing a source of impairment that is affecting primarily one of the assemblages, but not the other.

To assess attainment of the ALU category for an assessment unit (AU), the mean of a minimum of two samples collected from each of one or more representative sites within the AU will be used in conjunction with the ecoregion Coefficient of Variability (CV) for the designated ALU. All samples from all of the sites in the AU will be used to calculate the mean for that AU. If it is determined that a site is not representative of aquatic habitat in the AU, then results for bioassessments conducted at that site will not be included in the calculation of the mean. The highest ALU category included in the interval described about the mean by the CV will be used to determine attainment. See Appendix E for detailed information on the development of the CV.

Recreational Beaches

(Chapter 3—Contact Recreation Use, page 3-28)

The BEACH Act requires that states, in cooperation with EPA, develop and implement a program to monitor for pathogens and pathogen indicators in coastal recreation waters adjacent to public

bathing beaches. The Act also requires public notification when water quality standards for pathogens or pathogen indicators are exceeded.

The GLO Texas Beach Watch Program collects water samples from 163 stations along the Texas coast in Aransas, Brazoria, Cameron, Galveston, Jefferson, Kleberg, Matagorda, Nueces, and San Patricio Counties. The GLO contracts with universities, local governments and laboratories to collect samples and test them for the presence of *Enterococcus*. Samples are collected weekly during the peak beach season from May through September and every other week from October through April. The GLO maintains an interactive mapping tool locating each beach by county. Maps and other information are available on the Texas Beach Watch Program website at <http://www.glo.state.tx.us/coastal/beachwatch/>.

Advisories are recommended when the average of two samples of *Enterococcus* bacteria and compared to EPA's recommended single sample maximum density (SSMD) criteria of 104 colony forming units (cfu)/100 mL. When samples indicate that bacteria levels are high enough to warrant an advisory, the water at that beach must be sampled every 24 hours until bacteria levels fall within a safe range. An advisory lasts at least 24 hours, but can be extended if bacteria levels continue to exceed recommended levels. Samples are collected under a QAPP consistent with TCEQ bacteria collection and analysis protocols. Samples are analyzed for Enterococci bacteria using EPA's Method 1600 or the IDEXX Enterolert system.

Reporting Beach Assessment Information

The GLO compiles the beach data and provides the TCEQ with summary information for each beach monitored. The information includes the number of days each beach is under an advisory and the total number of sampled days for each beach. For all available data, the total number of advisory days (samples exceeding the single sample criterion) is divided by the total number of sampled days. If a beach is under an advisory for greater than or equal to 25% of the sampled days, the beach is "Not Supporting" the contact recreation use for beaches. If there are numerous sites monitored within a beach area, only one advisory is counted per beach per day. All impairments identified using this method are categorized as 5a due to human health considerations.

Beach advisories <25% of the time—Fully Supporting

Beach advisories 20-25% of the time—Concern and Fully Supporting.

Beach advisories < 20% of the time—Delisted and Fully Supporting.

Beach advisories > 25% of the time—Not Supporting.

Deleted Assessment Guidance Sections

The following sections and associated tables were deleted from the 2010 guidance:

Public Water Supply Use

(Chapter 3—Public Water Supply Use, page 3-44)

Finished Drinking Water

Chloride, Sulfate, and TDS

All finished water samples (minimum of 4) collected over the most recent five-year period are used to compute an average to compare to the secondary drinking water criteria in 30 TAC §290.118(b). Evaluation of these criteria is limited to chloride (300 mg/L), sulfate (300 mg/L), and TDS (1,000 mg/L). Sample results are reported and evaluated for individual water utilities and the water bodies that serve as the raw water supply. These criteria were developed to ensure that water supply utilities can treat and deliver water that is free of objectionable tastes at reasonable costs to consumers and utilities. Waters that exceed the secondary MCLs are identified as concerns, typically for the entire segment.

MCL Running Averages

The drinking water maximum contaminant levels (MCLs) for organic chemicals are shown in Table 3-15 and MCLs for inorganic chemicals are shown in Table 3-16. The criteria apply to finished (after treatment) drinking water that is sampled at the point of entry to distribution systems and typically are applied to the entire segment. Public water supply use support is based on a running annual average of samples (minimum of 4) computed and compared to the organic and inorganic drinking water standards. Assessment information is provided by TCEQ's Water Supply Division for the five-year assessment period.

MCL Concerns

A segment is considered a concern if information provided by TCEQ's Water Supply Division indicates finished drinking water concentrations are above one-half the MCL for primary drinking water standards greater than 10 percent of the time in the last five years. These concerns are not included on the 303(d) List.

Although no drinking water standards have been developed, MTBE and perchlorate are evaluated in the same manner as MCLs.

Increased Treatment Cost

Implementation of advanced treatment may be required for water supplies with elevated chloride, sulfate, and TDS concentrations. Public water supply systems that experience increased costs for demineralization or taste and odor treatment are identified as concerns for dissolved solids or nuisance algae, typically for the entire segment.

