

SWQM Guidance Advisory Workgroup (GAWG) Proposed Topics

Recreational Beach Assessment

The 2000 Beach Act requires that states, in cooperation with EPA, 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 General Land Office (GLO) coordinates the Texas Beach Watch Program (TBWP) for the state of Texas. Currently, the TBWP collects water samples from 163 stations along the Texas coast. The GLO contracts with universities, local governments, and laboratories, following strict quality assurance protocols, to collect these 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. TCEQ proposes including the TBWP information in the 303(d)/305(b) assessment in order to protect human health by identifying beaches with persistent advisories. Assessment would consist of the identification of the percentage of days sampled each beach has an advisory. The proposed threshold for listing beaches could be 25%, the threshold for single sample exceedances of the criterion in the TSWQS.

Public Water Supply

Currently, TCEQ assesses both surface and finished drinking water sources. Surface water data is screened against human health TSWQS criteria for public water supplies (PWS). Finished drinking water sources are evaluated using data provided by the TCEQ's Water Supply Division. The data provided are also screened against secondary drinking water criteria, and drinking water maximum contaminant levels for organic and inorganic chemicals. TCEQ staff feel that the Texas Water Quality Inventory should focus on the status of surface water bodies as sources for drinking water and not the finished product. Since many water supplies blend water for both groundwater and surface water, it is difficult to associate a PWS with a specific water body. We propose to continue to assess surface water data of PWSs using human health TSWQS to identify impairments, and TCEQ human health screening levels for alachlor, atrazine, MTBE, and perchlorate to identify concerns.

Metals in Water

During the 2008 assessment, a number of impairments related to metals in water were identified in several east Texas water bodies. The data resulted in potential listings not supported by other metals in water data. Upon further investigation it was determined that the available data had been collected using two different clean metals kits that appeared to produce different results. Both kit types were consistent with EPA Method 1669. The potential listings for metals in water were deferred pending further investigation by TCEQ and the EPA. For the 2010 assessment all metals in water data available will be considered. Water bodies with impairments will be evaluated on a case-by-case basis and if necessary will be deferred from listing until additional data is collected using the more common Method 1669 sampling protocol. For several listings deferred in 2008, samples are being collected by Lower Neches Valley Authority (LNVA) and Angelina Neches River Authority (ANRA) using TCEQ clean metals kits with sample analysis provided by the TCEQ Houston Laboratory. Data collection will be complete in November 2009 and available for the 2010 assessment.

Statistical Methods Update

During the 2008 SWQM GAWG, stakeholders and the agency agreed to continue the current statistical practice of employing the binomial method for determining impairments. Stakeholders had expressed an interest in considering the magnitude of exceedances using confidence intervals around a percentile. TCEQ provided a demonstration assessment using this alternate method. The demonstration identified a large percentage of water bodies as having concerns for water quality, due

to the variability of sample results in the data set. The overwhelming majority rejected the change due to the demonstrated outcome, complexity of the analysis, and the difficulty for stakeholders to reproduce the results. TCEQ then agreed to convene a subgroup to further discuss potential means to consider degree of magnitude of exceedances for 2010. Due to deployment of new tools and resource constraints, this endeavor has been postponed until 2012 and the 2010 assessment will be completed using the binomial method as in the past.

Standards Update

After extensive coordination with the Water Quality Standards Advisory Workgroup, TCEQ is completing a draft markup of proposed revisions to the Texas Surface Water Quality Standards. Proposed revisions will be reviewed and presented at TCEQ Agenda to obtain approval to publish the proposals for public comment. Major proposed revisions to the standards include (1) updating toxic criteria to protect human health, (2) adding numerical nutrient criteria for about 100 large reservoirs, (3) revising standards for contact recreation, and (4) adding or revising numerous site-specific standards for individual water bodies. For the draft revisions to recreation standards, expanded categories of uses and criteria are being considered. Concurrently, comprehensive updates of the Standards Implementation Procedures have been developed. The draft 2010 assessment will be based on the current (2000) standards, but revised standards that would affect listings will be considered in wastewater permitting and TMDL actions.

Biological Assessments

When assessing a water body for which the ALU Category 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 findings in the least disturbed streams study sampling, that the ALU indicated by each assemblage may differ from the other, and reduce the possibility of inappropriately listing a water body as a result of natural inherent differences between the integrity of the fish and benthic assemblages. 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.

When the ALU category was established based on a UAA including 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 an 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.