

The Surface Water Quality Monitoring Guidance Advisory Work Group Meeting
October 21, 2004

Meeting Summary

The fourth meeting of the Surface Water Quality Monitoring Guidance Advisory Work Group was held on October 21, 2004 on the TCEQ campus in Austin. This group of external stakeholders advises the agency on revisions to the guidance used to prepare the Texas Surface Water Quality Inventory and 303(d) List.

There will be a fifth meeting, limited to the subject of application of the statistical methods - see last item in this summary.

DATE: Thursday, December 9, 2004

TIME: 10 am to 4 pm

LOCATION: TCEQ Austin Campus, Building B, Room 201A

Stakeholders were asked to consider:

All handouts, meeting summaries and discussion are for the purpose of developing recommendations to TCEQ management for procedures to be used in 2006, or to be developed for future assessments. A draft document will be available for 30-days of public comment in a month or two.

Many issues discussed relate to the standards. Charlie Bayer at TCEQ keeps a file of suggested changes and will consider these for the upcoming triennial revision of the Texas Surface Water Quality Standards. Send him an email (cbayer@tceq.state.tx.us), soon, with your standards related suggestions.

The Stakeholder Guidance Survey was distributed and stakeholders were asked to complete the form at the meeting, or by email. The form was attached to an email distributed to the group members and participants in the October meeting. Participants can send it more than once if there are additional things to contribute later.

Assessment of sediment toxicity

A draft proposal was handed out which discusses:

- The results of each test or line of evidence that will demonstrate the condition of toxicity.
- Levels of statistical confidence for test results are proposed so that both lethal and sublethal conditions of toxicity can be established. The assessment of lethal endpoints for the 7 or 10-day test was revised from an alpha level of .01 to .05.
- The relative weights of each test or line of evidence is proposed in a table on the last page of the draft. The proposal gives greater weight to whole sediment tests and biological community health, and less weight to elutriate tests and sediment contaminants.

- Note that ambient toxicity tests for elutriate and whole sediment must be performed within standard methods (rather than “published”) or variations must be peer reviewed and approved by TCEQ.
- A statement will be inserted into the guidance stating that the use of ambient toxicity tests is an evolution and test may not always be useful or accurate in identifying toxic conditions.

Protection of rare and endangered species

Stakeholders and TCEQ staff discussed including a water body on the 303(d) List due to the presence of a Threatened or Endangered Species. The following considerations were brought by staff:

- The water quality standards protect aquatic life use for any species, not just T&E species.
- Limited range and population size may have caused an endemic species to be listed as threatened or endangered; this does not necessarily mean the water quality is impaired.
- USFWS maintains a list of federal T&E species; TPWD maintains a list of state T&E species.
- Through the TPDES program, consideration of impacts to a federal T&E species are considered in the permitting process (species are listed by county). During TCEQ development of water use permits, TPWD performs a simultaneous review of state T&E species for impacts
- Geographic information related to presence on a water body is not readily available to TCEQ for state T&E species. One of the stakeholders suggested that TCEQ formally request that TPWD provide this information.
- Changes in habitat or other degradation may threaten the species rather than pollution impact. The water body could be identified as impaired (in Category 4 and needing a watershed restoration plan), but listing on the 303(d) list and TMDL development may not be appropriate. Stakeholders noted discharge permits are less of a problem as T&E species are already addressed by permit programs, rather NPS such as agricultural runoff and sediment pose the larger risk.
- TCEQ staff will explore ways to include T&E information in the assessment, and for ranking water bodies for TMDL development, but because there are already protections in the permitting process for T&E species, but stated this will not be a priority for the 2006 assessment.
- Stakeholders recommended the following for 2006 - continue the current practice of listing if there is a threat to biological populations, which could include T&E; include a field for T&E in the assessment database and fact sheets, even if not water quality threatened and include groundwater; use this information for assigning categories and ranking for TMDL development; and provide information about T&E information for planning the basin cooperative monitoring schedule.

Monitoring planning and assessment of water bodies identified as concerns because they have small data sets

TCEQ staff distributed a handout that identified assessment and monitoring, both conducted and

planned, for assessment areas of water bodies identified in 2002 and 2004 as having concerns for attainment but that were identified with small datasets, not quite adequate for listing. These are given highest priority for routine monitoring. TCEQ staff prepared this analysis to show if these waters languish on the concerns list. It has been suggested that after a reasonable amount of time, these concerns should be moved to the impaired list as a way to motivate the agency to direct monitoring to these water bodies that are probably impaired. Although several stakeholders at the meeting were recent participants in basin monitoring planning, and indicated for specific basins these concerns were being monitored, the information tabulated by TCEQ staff did not demonstrate that. In particular when new stations are scheduled to better characterize water quality in an assessment area, TCEQ's assessment database cannot currently link the new station to the impaired area. Stakeholders encouraged TCEQ to develop this information before the planning meetings for FY06 monitoring, and to include a report on data already collected or planned that will complete small datasets.

Statistical methods for determining compliance with the standards

TCEQ staff prepared a slide presentation an alternative statistical method, using predetermined confidence interval around the 90th percentile (CIP method, a.k.a. Gibbons approach) which allows the consideration of both the frequency (as with the binomial approach) and the magnitude of the exceedance.

Staff indicated that TCEQ may not be able to implement the CIP method for the FY 2006 assessment unless a new assessment software tool can be developed.

There was a consensus that the CIP method is superior and should be implemented when it is possible. There was no consensus to stay with the current 20% chance of a Type 1 error on listing. There was no consensus on controlling the Type 1 error on delisting (when the null hypothesis is reversed). Stakeholders recommended that a table of the simultaneous Type 1 and Type 2 error rates for various sample sizes and levels of exceedance should be prepared for discussion.

Stakeholders suggested that a fifth meeting of the advisory group should be scheduled for the sole purpose of developing recommendations on the use of statistical methods.

What are the next steps?

Fifth meeting on Thursday December 9th.

Workgroup participants proposed the following feedback on the workgroup outcomes:

- Prepare a list of assessment method issues considered and changes suggested by the stakeholders. Send this list out to the advisory group for comment and revision.
- Give the revised list to TCEQ management when they consider the draft guidance. Send this revised list back out to the advisory group at or before the time of public comment.
- Prepare a list of major changes to the guidance to accompany the draft at the time of public comment.