

Public Comment on the 2002 “Draft Guidance for Assessing Texas Surface and Finished Drinking Water Quality Data” and “Draft Methodology for Developing the Texas List of Impaired Water Bodies”

Texas Natural Resource Conservation Commission (TNRCC)
August 21, 2001

Comment Letter #1

Summary of Comments	State's Response
1. We are concerned that statewide screening levels used to identify concerns may be too stringent for water bodies in certain areas of the state, and may lead to unnecessary follow-up monitoring.	1. It may be possible to develop screening levels for specific regions of the state for future assessments; however, at this time, the available data did not allow development of region-specific screening levels.
2. The use of secondary drinking water standards developed for finished drinking water to judge surface water may lead to additional costs to consumers.	2. Secondary drinking water standards are used only to identify concerns and indicate water quality conditions that are not optimal for drinking water use. Additional costs will only be incurred if the utility chooses to improve palatability of the drinking water.
3. The agency should proceed with caution in the development of methods for identifying concerns and nonsupport of narrative criteria.	3. Developing field and data analysis methods for identifying nonsupport and concerns for narrative criteria is a challenge. The agency will invite the participation of local water quality managers and stakeholders in the development of these methods.

Comment Letter #2

Summary of Comments	State's Response
1. If three samples are collected and all exceed criteria, the water body should be a primary concern.	1. The Guidance has been revised to include, as primary concerns, water bodies where three samples are collected and all exceed criteria.

Comment Letter #2, continued

Summary of Comments	State's Response
2. Consider a statistically-based method that takes into account the degree of variation in the data set and severity of exceedances.	2. The level of effort to develop a method that considers degree of variation and severity of exceedance prevents us from including it in the assessment at this time. However, the TNRCC and the Texas Parks and Wildlife Department (TPWD) are currently reviewing data in order to make recommendations for analysis of the data. This would strengthen the assessment for the purpose of accurately identifying both concerns and impairments, and will be considered in developing guidance for future assessments.
3. TNRCC should consider a statistically- based approach to handling non-detects.	3. TNRCC has an initiative to revise the water monitoring data base and include the metadata needed for this approach. The TNRCC will pursue this when the metadata are available.
4. TNRCC should consider a methodology to assess the physicochemical characteristics of perennial pools that contribute to the support of significant aquatic life.	4. TNRCC will work with TPWD biologists to develop a regionalized approach to characterizing the aquatic habitat of pools.
5. Does the chart for determining appropriate criteria cover instances where higher uses are observed in intermittent streams with perennial pools, or is dissolved oxygen only considered against the 3.0/2.0 criterion?	5. Only designated or presumed criteria of 3.0/2.0 mg/l dissolved oxygen are applied in intermittent streams.
6. There is no commitment to do additional monitoring for water bodies on the secondary concerns list. TNRCC needs to identify an effective mechanism for tracking water quality trends and degree of impairment in waters of "concern," providing incentives and funding for more definitive monitoring. We suggest that water bodies on the concerns list automatically move to the 303(d) list after two years.	6. Information has been added to the Guidance that describes TNRCC's monitoring strategy for impaired waters and concerns. New statistical approaches will better focus monitoring resources and provide more confidence in the resultant impairment listings. The Clean Water Act Section 305(b) water quality inventory will be used to track water quality trends and degrees of impairment. Water bodies will be listed only when impairments are identified, consistent with the Guidance.
7. The Guidance should include quality control procedures for collection of biological data and minimum requirements for Use Attainability Analyses (UAA).	7. These procedures are under development. Working drafts are available through the TNRCC Surface Water Quality Monitoring (SWQM) and Clean Rivers (CRP) programs.
8. If biological indices are highly variable, averaging across seasons and years is not a favored approach.	8. If sample results from multiple biological data sets are highly variable, determination of the causes will be attempted and sample validity will be evaluated.

Comment Letter #2, continued

Summary of Comments	State's Response
9. The support of narrative criteria should be considered in determining impairments as well as concerns. Some nutrient problems are more than just concerns and need to be elevated and addressed.	9. A statement has been added to the Methodology as follows: "The executive director will determine if narrative criteria are supported based on evidence provided by TNRCC staff, cooperating monitoring entity staff, and public comment. If the narrative criteria are not supported, the water body will be listed as impaired on the 303(d) list."
10. It may be relevant to consider sediment and tissue data older than 5 years.	10. The revised Guidance states that some sediment and tissue data older than 5 years may be used at the discretion of the TNRCC SWQM staff.
11. The screening value for mercury in fish tissue of 1.0 mg/kg is too high. We recommend the value of 0.3 mg/kg, the value the EPA has recently recommended.	11. The revised Guidance uses .7 mg/kg, consistent with the Texas Department of Health (TDH) screening levels.
12. We are concerned that the Methodology contains no reference to data received from TPWD.	12. The Methodology was changed to reflect the use of TPWD data.

Comment Letter #3

Summary of Comments	State's Response
1. The use of trends and identification of threatened water bodies should continue to be used to include water bodies on the 303(d) list.	1. New statistical approaches have been added to the assessment Guidance to provide more confidence in the resultant impairment listings and to better focus monitoring resources on identifying causes and sources of threats and concerns to water quality. Trend analyses will be evaluated and if statistically significant trends indicate a decline in water quality, the water body will be identified as a primary concern.
2. The Texas Surface Water Quality Standards (TSWQS) should be approved before changes are incorporated into the Guidance and legitimized by use in the assessment.	2. The water quality standards provide the framework for assessing standards compliance. The intent of this Guidance is to implement the TSWQS that are applicable at the time of the assessment.

Comment Letter #3, continued

Summary of Comments	State's Response
3. Criteria should be developed for additional water quality parameters and indicators such as dissolved solids for unclassified waters, nutrients, and sediment contaminants.	3. Additional criteria development is ongoing. For example, some of the standards implementation procedures for assessing total dissolved solids in unclassified streams might eventually have applicability in the standards rule. Nutrient criteria will be evaluated over the next three years, and TNRCC will also evaluate better procedures for screening sediment — or establishing sediment criteria — as they become available nationally.
4. Seasonal aquatic life uses should be protected and more detail should be given to specifying the requirement for assessing them; especially the use of biological data, and the application of chronic toxic criteria.	4. Although the TNRCC agrees that seasonal aquatic life uses should be protected, and that seasonal data provide important information, the TNRCC maintains that evaluation of designated aquatic life use attainment during the critical low flow period, essentially the index period, is most appropriate for the 305(b) assessment. This is because most effluent limits are established to protect the designated aquatic life use during these periods. Evaluation of support of seasonal aquatic life uses which occur outside of the index period are outside of the scope of the 305(b) water quality inventory at this time.
5. For the current assessment (2002) only, fewer numbers of samples should be used in determining use support.	5. At this time, small sample sizes will be used to identify concerns. Monitoring will be focused on concerns to develop an adequate data set to verify use support.
6. The probability of Type II errors should be acknowledged and added to the tables.	6. The probabilities for Type II errors have been illustrated in tables 2 through 5.
7. TNRCC should consider a statistically-based approach to handling nondetects.	7. TNRCC has an initiative to revise the water monitoring data base and include the meta-data needed for this approach. This will be pursued once the metadata are available.
8. The Guidance states that perennial pools have no significant aquatic life uses and intermittent streams have minimal aquatic life uses. The decision matrix includes discussion of limited aquatic life use in intermittent streams with perennial pools. There should be more consistency on this issue. Additionally, what is the basis for the determination of pool size, perennially supporting aquatic life?	8. The Guidance has been changed to provide more consistency on this issue. The TNRCC staff established the precedent in pool size determination for perennial pools supporting aquatic life for some permitting purposes. The same parameters have been adopted for this Guidance. The TNRCC, the TPWD, and other monitoring organizations will cooperate to develop more accurate and flexible parameters to characterize pools that support aquatic life.

Comment Letter #3, continued

Summary of Comments	State's Response
9. The use of additional EPA-approved methods for assessing acute and chronic ambient toxicity should be included. Whole sediment toxicity sets are preferable.	9. Several assessment methods have been added to the Guidance, including the use of whole sediment tests.
10. It is unclear how the criteria for single <i>E. coli</i> samples was determined.	10. The single-sample criterion for contact recreation in freshwater is an <i>E. coli</i> concentration of 394 per 100 milliliters, which is based on an upper confidence level of 82% and a log standard deviation of 0.52. The upper confidence level of 82% is taken from the current federal guidance for applying <i>E. coli</i> criteria to moderate, full-body contact recreation. The log standard deviation is the average of the log standard deviations which were calculated individually for 126 sampling stations in Texas waters.
11. Similar to updates for standards, it is not appropriate for the data used to derive new screening levels to include only recent data.	11. Screening levels are calculated with an extensive data set. Only very small changes have been made, except where new analytical methods have yielded more accurate (lower) levels or considerably more data are available.
12. Use of the more stringent EPA tissue residue criterion for mercury in fish is recommended.	12. The screening level for mercury in tissue has been made more stringent by lowering the level from 1.0 to 0.7 mg/kg to reflect levels used by the TDH for issuing fish consumption advisories.
13. TNRCC should consider specifying a primary concern where the screening level is exceeded in pollutants such as MTBE and perchlorate. Additionally, data generated should be used to develop statewide impairment criteria.	13. Primary concerns are established only from criteria in the TSWQS. MTBE and perchlorate were considered in the recent revision of the TSWQS; however, more information is needed about ambient levels and toxic risks. They will be considered again in the next triennial review.

Comment Letter #4

Summary of Comments	State's Response
1. TNRCC has “raised the bar” for listing on the 303(d) list and has provided no discussion of incentives or assurances that sufficient monitoring will be conducted to adequately evaluate compliance with the standards. The decreased potential of falsely listing a water body dramatically increases the risk of removing an impaired water body from the list.	1. Information has been added to the Guidance that describes TNRCC’s monitoring strategy for impaired waters and concerns. The statistical approaches will focus monitoring resources and provide more confidence in the resultant impairment listings. The TNRCC acknowledges that there is a higher potential for not listing an impaired water body and has detailed the probabilities for this in the Guidance. The Clean Water Act Section 305(b) water quality inventory will be used to track water quality trends and degrees of impairment.
2. The agency has made significant changes to the 303(d) process that have major regulatory implications without complying with the rulemaking requirements for the Texas Administrative Procedures Act.	2. The 303(d) listing process is not an action subject to the rulemaking requirements of the Texas Administrative Procedures Act (APA). The APA defines “rule” as a “...state agency statement of general applicability that implements, interprets, or prescribes law or policy” or “describes the procedure or practice requirements of a state agency” [Tex. Gov’t Code §2001.003(6)]. The 303(d) Listing Methodology does not implement, interpret, or prescribe law or policy. The 303(d) Methodology is a guidance document to be used by the TNRCC in determining which water bodies must be listed on the state’s 303(d) list. The TNRCC designed this document as guidance in order to maintain flexibility, which is needed to accommodate changes to methodology due to advances in science and technology. It describes how the TNRCC will proceed in the listing process, in order to assist public understanding and participation in the process. It is not binding or unchangeable, however, and is intended to provide appropriate flexibility when circumstances require it.
3. Increased staff resources required to obtain 24-hour dissolved oxygen samples will result in a decrease in the number of samples collected.	3. The TNRCC has obtained additional funding specifically for 24-hour dissolved oxygen sampling. Quarterly grab samples will continue to be used for identifying concerns.
4. The TNRCC should take an alternative approach that water bodies included on the “list of concerns” will either be sampled sufficiently or automatically move to the 303(d) list.	4. New statistical approaches will better focus monitoring resources and provide more confidence in the resultant impairment listings. The Clean Water Act Section 305(b) water quality inventory will be used to track water quality trends and degrees of impairment. Water bodies will be listed only when impairments are identified, consistent with the Guidance.

Comment Letter #4, continued

Summary of Comments	State's Response
5. Less than 2 years of data should be acceptable - for the identification of concerns if the intent for the "concerns list" is to identify areas for additional sampling.	5. TNRCC staff feel that 2 years of data collection is reasonable for listing a water body and for identifying the water body as a concern. The protocols of the TNRCC and cooperating organizations require monitoring scheduled for a minimum of 2 years.
6. Waters must be listed as impaired if criteria or uses are not supported, regardless of whether a Use Attainability Analysis (UAA) has been performed.	6. The intent of the language in the section "Biological and Habitat Assessment" is not to address listing, but rather to indicate conditions under which UAAs are appropriate. However, a water body will not be listed if biological data indicate the aquatic life use is supported.
7. A water body must be listed if any aspect of the standards are not supported. So, if the dissolved oxygen criterion is not supported, it must be considered independently of the results of a biological community assessment.	7. A water body will not be listed as impaired when the aquatic community is healthy but the dissolved oxygen criterion is not supported. The dissolved oxygen criterion was developed as an indirect way to protect aquatic life use. Biological assessment, giving a direct measure of aquatic life use support, will be used.
8. Regarding oyster waters, conditionally approved waters should not be regarded as meeting water quality standards. The TNRCC could base the assessment on the percentage of time that the closures of these water bodies are in place.	8. TNRCC staff do not assess data for oyster waters. Maps classifying areas only as approved, conditionally approved, restricted, or prohibited are provided by the Texas Department of Health. These maps do not include the percentage of time that closures are in effect. Conditionally approved waters are classified as primary concerns.
9. The currently applicable federal regulations require listing of threatened waters.	9. The current regulations use the term "water quality limited," rather than "threatened" in relation to water bodies that must be listed on the 303(d) list. 40 CFR 130.7(b)(i)-(iii) requires each state to identify its water-quality-limited segments still requiring TMDLs where technology-based effluent limitations, more stringent effluent limitations, or other pollution control requirements are not stringent enough to implement applicable water quality standards. 40 CFR 130.7(5) requires states to assemble and evaluate all existing and readily available water quality data to develop the 303(d) list, including data relating to threatened water bodies. Any water bodies considered "threatened" will be listed on the 305(b) concerns list, and those water bodies will be moved to the 303(d) list for purposes of TMDL development if uses and criteria are not supported.

Comment Letter #4, continued

Summary of Comments	State's Response
10. Only use impairments are included on the list. This is inconsistent with Clean Water Act requirements and federal regulations that the TNRCC must list water bodies not in compliance with water quality standards. Narrative criteria must be considered in addition to use impairments.	10. Both uses and criteria must be supported. A statement has been added to the Methodology as follows: "The executive director will determine if narrative criteria are supported based on evidence provided by TNRCC staff, cooperating monitoring entity staff, and public comment. If the narrative criteria are not supported, the water body will be listed as impaired on the 303(d) list."
11. The ranking process does not appear in any of the documentation. Public comment is not possible as a result.	11. The guidance for assigning priority for TMDL development in listed waters has been added to the Methodology. This ranking process was developed with cooperation of a stakeholder group representing state and local government, industry, and environmental interests. Public comment on the Ranking Methodology will be invited during the 303(d) comment period.
12. More explanation is needed about established public outreach mechanisms of the Texas Clean Rivers Program (CRP).	12. Language describing CRP outreach activities has been added to the Methodology.
13. The TNRCC should include data other than "high quality" data in the assessment.	13. A sentence has been added to the Methodology stating that all data are considered.
14. For public outreach, we recommend the TNRCC compile a more comprehensive e-mail list and use it more often for notification of significant information.	14. E-mail addresses are added to the e-mail contact list as interested persons submit comments, and as meetings are held where e-mail addresses are collected on meeting sign-in sheets. This e-mail list will be used by TNRCC staff for the purpose of notifying stakeholders of significant information. Other mechanisms will also be used, including the agency Web site and the <i>Texas Register</i> , for official postings of significant meetings and events.
15. The Methodology states that a water body may be removed from the 303(d) list if new revisions in the procedures and criteria cause a water body to no longer meet criteria for listing. We disagree with this practice and state that the water body must be proven to be in compliance with water quality standards before removal from the 303(d) list.	15. A sentence was added to the Methodology stating that adequate, recent data must demonstrate compliance with water quality standards to delist a water body.

Comment Letter #4, continued

Summary of Comments	State's Response
16. It is inappropriate to delist a water body if a TMDL is approved. A water body should remain listed until it is in compliance with water quality standards.	16. Federal rules allow delisting of water bodies upon approval of a TMDL. 40 CFR 130.7(b)(i) describes the 303(d) list as "water quality limited" segments still requiring TMDLs. Thus, once a TMDL is developed and approved, the water body may be removed from the 303(d) list. EPA guidance supports this approach. It is only inappropriate to delist a water body when a water body is listed for more than one pollutant but a TMDL has not been developed for each pollutant.
17. We believe that the ranking of water bodies for TMDL development should be subject to public comment and that the 305(b) report and 303(d) list should be made more publicly available. Also, we would like to see the notification process for the 303(d) list track the same notification process as the 305(b) report.	17. The Methodology will include the guidance for assigning priority for TMDL development in listed waters. Public comment on the Ranking Methodology will be invited during the 303(d) comment period. Public comment will be solicited for the 303(d) ranking following the 305(b) report. Notification by e-mail and on the agency Web site will occur for both.

Comment Letter #5

Summary of Comments	State's Response
1. The Guidance shifts the focus from protecting water bodies and improving water quality to accommodating budgetary constraints and appeasing the regulated community by using the new statistically-based methods for determining use support. The new methods overcorrect to guard against erroneously listing a water body and increase the probability of not listing an impaired water body. The tables do not point out the latter.	1. The purpose of statistically-based methods for determining standards compliance is to provide more confidence in the assessment process. Additionally, the designation of threats and concerns on the Clean Water Act Section 305(b) water quality inventory provides input to the development of a strategically-focused monitoring plan. The tables have been revised to detail the probability of not listing an impaired water body.
2. The Guidance requires more resources for 24-hour dissolved oxygen monitoring than the agency can provide.	2. Use of a strategic monitoring plan enables the TNRCC and others to direct resources to (1) impaired waters and (2) waters needing additional data to make a determination of standards compliance. Use of strategic monitoring also identifies areas needing monitoring over time with respect to trends which may indicate potential, future impairments.

Comment Letter #5, continued

Summary of Comments	State's Response
3. The Methodology states that a water body may not be listed if direct measures such as biological monitoring show no use impairment although indirect measures such as dissolved oxygen show impairment of the numeric standard. We are concerned that with limited resources for biological work, this may result, in the long term, in missing impairment if the biological community measures are not used.	3. In the absence of biological data, dissolved oxygen data will be used to evaluate aquatic life use support.

Comment Letter #7

Summary of Comments	State's Response
1. We are concerned that the Guidance will no longer list water bodies for exceedance of narrative criteria, such as nutrients that cause excessive aquatic plant growth. This is inconsistent with the federal Clean Water Act.	1. A statement has been added to the Methodology as follows: "The executive director will determine if narrative criteria are supported based on evidence provided by TNRCC staff, cooperating monitoring entity staff, and public comment. If the narrative criteria are not supported, the water body will be listed as impaired on the 303(d) list."
2. The Methodology states that a water body may be removed from the 303(d) list if new revisions in the procedures and criteria cause a water body to no longer meet criteria for listing. We are concerned that water bodies will be delisted because the Guidance now states that narrative criteria exceedances will no longer result in listing. This violates section 303(d) and would be done without appropriate revisions to standards.	2. Narrative criteria will be used to identify water bodies as impaired on the 303(d) list. Impaired water bodies will be delisted if a recent data set indicates all uses and criteria are met.

Comment Letter #8

Summary of Comments	State's Response
1. We believe the Guidance to be scientifically based and commend the TNRCC for providing for stakeholder involvement in the development process.	
2. The Methodology is sound and clearly outlined and provides an understanding for delisting a water body.	