

## Draft 2008 Water Quality Inventory and 303(d) List - Response to Public Comment (March 19, 2008)

Texas Commission on Environmental Quality (TCEQ)

These comments address the Commission’s Draft 2008 Water Quality Inventory and 303(d) List and were submitted during the comment period beginning December 21, and ending January 31, 2008.

Comment Number	Date Received	Summary of main points in comment letter.	Response to the main points in comment letter.
01 City of Texarkana	1/14/2008	Segments 0304A (Swampoodle Creek) and 0304B (Cowhorn Creek) are listed for impairment of the fish and benthic communities based on a presumed aquatic life use (ALU). This listing may affect the city’s permits in ways that are unnecessary and inappropriate. A use attainability analysis (UAA) should be completed to establish the appropriate ALU before assessing and possibly listing these water bodies. It should be noted that the Texas Surface Water Quality Standards state that for waters like Swampoodle and Cowhorn Creeks that are not listed in Appendix A or D, the designated uses are those that are “attainable or characteristic” of those waters. And that “Upon administrative or regulatory action” by the agency, the characteristics of the affected water body will be reviewed to determine the appropriate aquatic life uses. Both streams are heavily channelized and urbanized and it is unlikely that the habitat would support a diverse aquatic community. These water bodies flow into larger, less urban streams that have been determined to have an Intermediate ALU.	Current guidance provides for assessment and listing of unclassified water bodies based on a presumption of aquatic life use associated with stream flow-type. This presumed ALU and the associated criteria is the applicable water quality standard. Swampoodle and Cowhorn Creeks have been assessed and listed using this presumed high ALU based on perennial flow which was assigned using information reviewed for this assessment. Section 307.9 of the Texas Surface Water Quality Standards (TSWQS) describes procedures for Determination of Standards Attainment. 307.9(f) TSWQS states that “Biological integrity, which is an essential component of the aquatic life categories defined in 307(b)(3) of this title, is assessed by sampling the aquatic community. Attainment of aquatic life use may be assessed by indices of biotic integrity which are described in publicly available documents such as in the latest version of TCEQ’s <i>Guidance for Screening and Assessing Texas Surface and Finished Drinking Water Quality Data.</i> ” TCEQ is considering language that could be added to the TSWQS that would define the application of presumed uses in the assessment.
02 Brazos River Authority	1/28/2008	1. Segments 1205, 1206, 1238, 1240, and 1241 are listed inappropriately for chloride. The chlorides are naturally occurring due to the unique geological features of the area. Additionally, drought in 2005 and 2006 contributed to the listings and this will create	1. TCEQ agrees that the source of chloride is natural, and is causing these water bodies to not support their respective General Use, and recommends a review of the standard to address the natural concentrations of salt such that the criteria or method

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		<p>cycles of listing and delisting that wastes water quality management resources. Some of these segments were originally in Category 4c but are now in 5b and 5c. The Brazos River Authority (BRA) questions the value of a standards criteria change or collection of additional data when the conditions are naturally caused and cyclical.</p> <p>2. The BRA requests that consideration be given to the scheduling of bacteria TMDLs for small streams until work is completed by the Water Quality Standards Workgroup.</p> <p>3. Site specific information is provided on the flow-type for the following water bodies - Segments 1217A, 12221B, 1221C, 1226A, 1242B, 1242C, 1242D, and 1250. These segments are designated incorrectly for flow type in the TSWQS, perhaps based on outdated or less complete information. Though changes in flow status may not be accomplished for 2008, please consider these changes for 2010.</p> <p>4. Biological data has been provided for Segments 1206, 1217E, and 1227 though it was not assessed for the 2008 Report. Additionally, TCEQ scores differ from BRA. BRA requests assessment of the data for these segments.</p>	<p>of evaluation considers periods of prolonged drought. The most recently listed impairments were placed in Category 5c. Additional information will be collected for a standards review and before considering a TMDL.</p> <p>2. Although the assessment must be based on the currently approved Texas Surface Water Quality Standards (TSWQS), TCEQ will take into consideration the changes now being proposed for bacteria in the triennial revision of the TSWQS before any planning or scheduling is done for a TMDL.</p> <p>3. Information provided by the commentor on the flow-type for water bodies designated in Appendix D will be considered in the triennial revision of the TSWQS, now underway. Information provided for unclassified water bodies not in Appendix D will be used when they are assessed in 2010, as requested.</p> <p>4. Biological data for segment 1206 was re-assessed with additional sample information provided by BRA. The results are consistent with the draft - macrobenthic community Not Supporting, habitat a Concern, and Fully Supporting for the fish community.</p> <p>Segment 1217 E will be included in the 2010 305b assessment, since additional samples provided by BRA fall outside the period of record of the current 2008 assessment.</p> <p>For Segment 1227 an adjustment to the calculations based on the coefficient of variation was applied to Segment 1227 biological data,</p>

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		<p>5. Data has also been provided for the following water bodies and we request that this data be included in the 2010 assessment - Segments 1209C, 1209G, 1212, 1216, 1217, 1217B, 1232B, 1242B, 1242D, 1242J, 1244, and 1247A.</p> <p>6. Segments 1209J, 1209K, 1217, and 1229 were monitored by BRA prior to 2000, and placed on the 303d list in 2002. Since no new data were collected after 2000, BRA questions the use of the data to establish current conditions, including “carrying forward” the impairments from 2002 in the 2008 Draft.</p> <p>7. Information has been provided on water quality conditions and sources of pollutants for Segment 1227, Trimmier Creek, and Segment 1250.</p>	<p>resulting in a regionalized IBI score that was different from the score calculated by BRA. The coefficient of variation adjusts the regionalized IBI score proportional to the variability seen in ecoregion reference data, thus increasing the confidence of the final score after the adjustment.</p> <p>5. Biological data collected for these unclassified water bodies will be used in the 2010 assessment as requested.</p> <p>6. The practice of “carrying forward” impairment information from previous assessments allows TCEQ to report water quality status based on the most current information available. This practice will be discussed by the Surface Water Quality Guidance Advisory Workgroup and adjustments will be considered.</p> <p>7. Information on impairment causes and pollutant sources has been incorporated into the final draft report.</p>
03 San Antonio River Authority	1/30/2008	Segment 1907 (Upper Leon Creek) is identified as a concern for dissolved oxygen (DO). Four values used in the assessment were below the 7Q2 critical flow level. These values and the Concern should be removed from the assessment data set.	The available flow data have been reviewed for Segment 1907 and these four DO samples have been removed from assessment since flow reported on the day of sampling was below the critical 7Q2. Support status for DO was changed to No Concern.
04 Nueces River Authority	1/30/2008	<p>Segment 2004A (Aransas Creek), identified as West Aransas Creek in the 2008 Report, should be changed to Aransas Creek.</p> <p>2103 (Lake Corpus Christi) currently is identified as a Concern for orthophosphorus in the upper portion of the lake. This area is riverine and the stream criteria should apply. Additionally, 2 of the 4 data points are non-detects. The Concern should be removed.</p>	<p>Aransas Creek will be named correctly in the final draft.</p> <p>As this station is located within the designated segment which is a reservoir, screening levels for reservoirs apply, and the assessment of Concern will remain on the final draft.</p>

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05 Sabine River Authority	1/31/2008	<p>Segment 0507 (Cowleech Fork of the Sabine River Arm of Lake Tawakoni) has been listed for high pH. The period of record for this assessment included two years of severe drought and the majority of the pH exceedances occurred during the drought. Exceedances that did occur were less than 0.4 standard units with a median of 9.11 for the exceedances. The use of these data collected during extreme drought does not result in an assessment which is characteristic of the lake and data collected after the drought will reflect pre-drought conditions. The draft listing should be removed.</p> <p>The lowermost area of Toledo Bend Reservoir (Segment 0504) should be subdivided for assessment purposes to be consistent with TCEQ Guidance. The Indian Creek Arm area represents a hydrologically distinct portion of the reservoir from the main pool (AU_01).</p> <p>The Sabine River Authority follows up on extensive comments and discussion with TCEQ staff on the current listings based on ambient toxicity tests. The ambient toxicity tests as performed are not suitable for the incontrovertible evidence of toxicity in stream; other water quality and biological data do not indicate toxicity; and the Texas Surface Water Quality Standards (TSWQS) do not address total toxicity in ambient waters absent the presence of discharges. The data generated for the assessment of these listed waters were part of screening studies that used modified 7-day ambient toxicity protocols. The general criterion for total toxicity and supporting provisions in 30 TAC §§307.6 and 307.10 do not provide authority for using chronic WET tests as the sole basis for listing a stream segment; this</p>	<p>Segment 0507 was evaluated with data collected during the period-of-record for the 2008 assessment. The pH criterion considers the range of ambient conditions in the reservoir, including drought conditions. The dataset in question includes 18 exceedances out of 144 samples. The standard was developed to consider the range of conditions in the reservoir and more than half of the exceedances occur outside the drought years of 2005 and 2006. The data set indicates nonsupport of the criterion and this impairment will remain on the draft.</p> <p>TCEQ acknowledges this portion of the reservoir (0504 Toledo Bend Reservoir) is hydrologically distinct from the main body of the lake. For the 2010 assessment, the AU boundaries will be re-evaluated. There are no water quality concerns indicated in the lower part of the lake other than the reservoir-wide fish advisory and no changes will be made for the 2008 draft.</p> <p>Although the TCEQ has suspended the additional listing of waters in the Sabine basin pending reliable toxicity testing methods, the four current listings are based on an indication of toxicity from modified toxicity tests and will remain listed until additional information has been gathered and reviewed. TCEQ has proposed a study focusing on waters that have previously indicated ambient toxicity and some reference sites. The study will employ biological sampling, a review of potential pollutant sources, and WET tests performed according to published protocols. A weight of evidence approach for assessing ambient toxicity in water will be discussed and formalized with the Surface Water Quality Monitoring Guidance Advisory Workgroup.</p>

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		issue must be resolved in the current revision of the TSWQS.	
06 National Wildlife Federation	1/31/2008	<p>Skull Creek (Segment 1402H) should be added to the 2008 303(d) List, in Category 5b. TCEQ may not simply suggest in the Guidance that a delayed listing will be put on the list at some time in the future. At a minimum, if TCEQ elects to pursue this “deferred-listings” approach, the Agency must adopt rules that provide for a reasonable time period, which should be less than the proposed eight years, for completing a UAA, and that ensure the automatic listing of any such “deferred” listing in the absence of a timely standards change.</p> <p>In 2002, TCEQ adopted a change in methodology for assessment of DO impairments that required the use of 24-hour measurements in addition to grab samples. As an explicit aspect of the discussions on this change with stakeholders, TCEQ indicated that existing impairments (listings) would remain until adequate 24-hour sampling was available to inform a listing decision. TCEQ should honor this commitment to gather adequate 24-hour data to assess segments before delisting them.</p>	<p>Current guidance provides for assessment and listing of unclassified water bodies based on a presumption of aquatic life use associated with stream flow-type. Skull Creek has been assessed and listed using a presumed High ALU based on perennial flow which was assigned using information provided for this assessment.</p> <p>TCEQ is considering language that could be added to the TSWQS that would define the application of presumed uses and associated DO criteria in the assessment.</p> <p>TCEQ acknowledges that in 2002 when the decision was made to require 24-hour measurements, the stated intent of TCEQ was to leave the existing listings on the 303(d) list because they had already shown a concern based on grab samples. A review of the remaining listings (on the 2006 list) based on grab exceedances of the criterion for 24-hour average identified eight potential delistings for the draft, one (Segment 2104) actually has adequate 24-hour data to demonstrate support; two (602A and 610) were listed in error (didn’t exceed the average criterion in the original dataset) and the current data show no concerns for DO; two (1420 and 2117) show no indication of a concern for DO based on more recent grab samples; and the remaining three (506A, 1113A, and 1906) do indicate a Concern for DO based on recent grabs and will not be delisted.</p> <p>This review considered the body of information available for dissolved oxygen and ensured that the water body would not have been listed based on exceedances of the minimum criterion either in the past, or with more recent data. Three delistings are proposed for the final</p>

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		<p>Specific segment delistings include:</p> <p>0506A (Harris Creek) - The listing should remain until adequate 24-hour data are collected. New data indicate DO issues exist.</p> <p>0602A (Booger Branch) - The listing should remain until adequate 24-hour data are collected to make an informed decision on delisting.</p> <p>0610 (Sam Rayburn Reservoir) - The listing should remain until adequate 24-hour data are collected. Also an Assessment Unit (area) should be referenced.</p>	<p>draft because the original listing was not consistent with current methodology and, based on the judgment of the assessor, no concern for DO is demonstrated with recent sampling. See details below for six proposed delistings identified in the comment:</p> <p>0506A (Harris Creek) – A review of recent data indicates a Concern for dissolved oxygen with 5 of 31 grab samples exceeding the screening level. This impairment will remain listed and 24-hour DO will be collected.</p> <p>0602A (Booger Branch) - TCEQ has reviewed the available DO data and the original listing was found to be in error. Booger Branch is in Appendix D of the Texas Surface Water Quality Standards as a perennial stream with Limited ALU 3.0/2.0 DO criteria. Many DO samples in the original dataset and more recent samples were collected when flow measurements were less than 0.02 cfs, which is less than the “no flow” default of 0.1 cfs. For perennial streams, samples collected at no flow are not compared to the criteria. The original listing was in error and DO will be delisted.</p> <p>0610 (Sam Rayburn Reservoir) - TCEQ has reviewed the available DO data and the original listing was found to be in error. Re-evaluation of the data from the period of record of the original listing indicates no exceedances for 5.0 screening level or the minimum 3.0 DO criteria. There were 34 recent 24-hr DO samples reported for Segment 0610 from 4 sites, indicating no concerns for DO. In the most recent seven years, 488 grab samples have been collected, also indicating no concern for DO. The DO will be delisted.</p>

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		<p>1113A (Armand Bayou above Tidal) - The listing should remain until adequate 24-hour data are collected. New data indicate DO issues exist. The “additional information” discussion appears to be mismatched with DO, the parameter listed.</p> <p>1420 (Pecan Bayou) - The listing should remain until adequate 24-hour data are collected.</p> <p>2117 (Frio River above Choke Canyon) -The listing should remain until adequate 24-hour data are collected. AU information is unclear but it appears that four AUs are being delisted. For 2 of the AUs, the 24-hour data indicate failure to meet standards.</p>	<p>1113A (Armand Bayou above Tidal) - Review of the most recent seven years of data indicates a Concern for dissolved oxygen with 35 of 95 grab samples exceeding the screening level. This impairment will remain listed and 24-hour DO will be collected.</p> <p>1420 (Pecan Bayou) - TCEQ has reviewed the available DO data and the data used for the original listing. In 1999, grab samples were compared to the average criterion indicating Partial Support with 3 of 15 samples exceeding the average criterion. In the most recent seven years, four 24-hr samples have been reported with no exceedances and only 3 of 31 grab samples (9.7%) exceeded the screening level, indicating good water quality. The DO will be delisted.</p> <p>2117 (Frio River above Choke Canyon) -TCEQ has reviewed the available DO data and the data used for the original listing. The original listing using grab samples was based on exceedances of the average criterion. There are insufficient 24-hour data to judge water quality conditions. Recent grab data compared to the screening level for four assessment areas (AUs) are as follows:</p> <p>AU 2117_01 4/39  AU 2117_02 0/11  AU 2117_03 1/21  AU 2117_04 0/16</p> <p>Because the exceedances of the screening level for one UA 2117_01 is only 10.3% (4/39), and for the water body overall is 5.7% (5/87), the DO will be delisted, but 24-hr sampling will continue.</p> <p>Note: There were two related delistings proposed for the draft: Segment 1906 which shows a</p>

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		<p>The 2008 Guidance now recognizes that when delisting impairments, the exceedance rate must not exceed 10%. This is a welcome development, though still inconsistent with the binomial statistical methodology.</p> <p>The change in the DO sample timing requirements that includes wording such as “no more than” imposes additional constraints on collection of adequate data sets.</p> <p>TCEQ documents continue to be cryptic and provide obstacles to effective comment for many stakeholders. As an example, the references to the area assessed (AU_ID) in the delisting document would allow identification of impaired areas that are proposed for delisting.</p>	<p>Concern for DO in AU 1906_05 with 7 exceedances in 31 grab samples. This impairment will remain listed and 24-hour DO will be collected.</p> <p>Segment 2104 which has sufficient 24-hour samples that meet the criteria. The impairment will be delisted.</p> <p>TCEQ will continue to seek assessment methods that are practical and that have levels of confidence that are acceptable to stakeholders and can be quantified.</p> <p>The Guidance for 2008 and 2010 will give considerable latitude to data providers and assessors over the next several years as adjustments are made to monitoring schedules and the practical aspects of obtaining temporally representative sample sets are worked out. Discussions with the Surface Water Quality Monitoring Guidance Advisory Workgroup will be an opportunity to explore changes that may be needed.</p> <p>TCEQ water program staff recognizes that reporting comparable information on assessed areas would facilitate comparing lists between years and tracking which areas need a TMDL. This need has been identified by EPA and water program staff. We will develop a way to follow AU IDs and the area they represent in each of the reports for the 2010 List. Note that when a water body is delisted, the reason given applies to all areas that were listed in the previous assessment.</p>
07 Cibolo Creek Municipal Authority	1/31/2008	Segment 1913 (Mid Cibolo Creek) is listed in Category 5c for bacteria. The Cibolo Creek Municipal Authority requests that consideration for scheduling a bacteria TMDL takes into account the efforts underway in the triennial revision of the Texas Surface Water Quality Standards to evaluate the appropriateness of the	Although the assessment must be based on the currently approved Texas Surface Water Quality Standards (TSWQS), TCEQ will take into consideration the changes now being proposed for bacteria in the triennial revision of the TSWQS in planning and scheduling for a TMDL.



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		<p>water quality criteria for bacteria.</p> <p>Additionally, the 2008 Report states that AU 1913_02 was first listed in 1999. This area of the creek was not added to the 303(d) list until 2004.</p>	<p>The column header explanation on the report (the Index of Impairments) will be revised to indicate that the year first listed refers to the listing of the water body, in any AU, for this parameter.</p>
08 Lower Colorado River Authority	1/30/2008	<p>Segment 1304 (Caney Creek Tidal) is listed for DO based on 24-hour data. Two of the six datasets were mistakenly included and should not be used in the assessment. The segment should not be listed with the few remaining data as it is insufficient to assess the water body.</p> <p>Regarding the Deferred Listings Table, the Lower Colorado River Authority agrees that appropriate water quality standards should be established prior to placing a non-classified water body on the 303(d) List. However, by postponing the placement of a water body on the list for up to eight years, potential remediation projects such as Watershed Protection Plans or TMDLs might also be postponed due to lack of federal funding linked to listing. A 5-year timeline for moving deferred listings to the 303(d) list would be more appropriate than the proposed 8-year timeline.</p>	<p>These data have been reviewed as indicated. The DO listing will be removed for the final draft.</p> <p>TCEQ is considering language that could be added to the TSWQS that would define the application of presumed uses in the assessment.</p>