# Public Comment on the 2002 "Draft 305(b) Water Quality Inventory"

Texas Natural Resource Conservation Commission (TNRCC)
June 13, 2002

These comments were based on the Commission's Draft 305(b) Water Quality Inventory for 2002. EPA published its 2002 Integrated Water Quality Monitoring and Assessment Report Guidance requesting that states follow it rather than previous 305(b) and 303(d) listing guidance. In this new 2002 Guidance, EPA proposed five categories that further delineate and classify water bodies in lieu of the previous 305(b) and 303(d) lists. The Commission has determined that a revised categorization allows for more appropriate characterization of waters in the State and more clearly focuses efforts to further address water quality issues. Consequently, the Commission is today also publishing on the TNRCC website for public comment a Draft 2002 Integrated Report that encompasses the State's previous 305(b) and 303(d) lists.

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| 01 | 1. Segments 2302 & 2310 Public Water Supply (PWS) use should be listed as not supporting (NS) due to chloride, sulfate and total dissolved solids (TDS) in finished drinking water. | 1. Segments 2302 & 2310 required no change. Chloride, sulfate and TDS in finished drinking water are secondary concerns only and not used in determining use support for PWS. |
| | 2. Segment 2303 TDS should be delisted. | 2. Segment 2303 had enough data to assess with recalculated TDS values. Segment will be de-listed for TDS. |
| | 3. Segments 2304 ammonia concern for subsegments 05 & 12 should be changed to no concern. | 3. Segment 2304 was changed from an ammonia concern to no concern in subsegments 05&12. These were incorrectly identified as concerns. The number of samples exceeding the ammonia screening level for each subsegment did not warrant listing as a concern. |
| | 4. Segment 2307 should be changed from fully supporting (FS) to not assessed (NA) for the PWS use. There are no diversions from 2307 for public water supply. | 4. In segment 2307, the PWS use assessment for finished drinking water changed from FS to NA. |
| | 5. Segment 2308 should not be assessed as a PWS due to a canal extension project that diverts most water from 2308. | 5. In segment 2308, the PWS use was erroneously left in Appendix A during the last standards revision. For now it will be considered not assessed until a correction can be made to the standards and the PWS removed. |
| | 6. TNRCC needs to indicate which stations were grouped for the assessment and PWS concerns for finished drinking water should contain the location of the facility causing the concern. | 6. An improvement was made to the database that allows stations grouped for the assessment to show up on the fact sheet. Assessment was based on facilities using water from the Rio Grande as a source. The database is not configured to include facility information. |
| 02 | We request the bacteria data for segment 1501 be re-checked for wet weather bias. | The use of bacteria was reviewed. Enterococcus data was removed from the assessment because the period of record was only one year, less than the required two-year sampling period. The data collector did not submit flow data with their samples, therefore wet weather bias could not be determined. |

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| 03 | 1. We request that TNRCC re-assess 1222A Aquatic Life Use (ALU) using intermediate flow status instead of the presumed perennial status used in the 1998 assessment.<br><br>2. We do not agree with the 1203 ALU Concern based on DO data and submitted additional data supporting their claim.<br><br>3. We question the identification of Duck Creek, 1209H, as a concern. Seasonal processes cause depressed DO levels. Submitted additional data. | 1. 1222A dissolved oxygen (DO) criteria was changed from High to Limited using new flow information. Re-assessed the 1998 305b data which resulted in a de-listing (FS the limited ALU).<br><br>2. Reviewed 1203 DO data, the assessment is correct as stated. The data submitted for review did not take the mixed surface layer into account for lake measurements.<br><br>3. Reviewed additional 1209H DO data. The segment was re-assessed and a T2 concern for DO exists for both stations. Assessment results for the segment remain as stated in the draft. Data submitted for review was collected and assessed consistent with TNRCC guidance. |
| 04 | Please see additional 24-hr information for segment 1602. | Reviewed the data and incorporated it into the assessment where appropriate. Inclusion of additional data and re-assessment did not change assessment outcome. |
| 05 | 1. Commentor requested TNRCC review our information regarding potential causes and sources to impairments/concerns.<br><br>2. Segment 1602 should be designated intermittent with a lowered ALU criteria.<br><br>3. Commentor requested a follow-up investigation on a specific egg farm which caused fish kills in segment 1602. | 1. River Authority input was initially used to attribute causes/sources to impairments/concerns, thus no additional changes in causes/sources are needed.<br><br>2. This is a classified segment. The re-designation to intermittent from perennial can be addressed through the Texas Surface Water Quality Standards (TSWQS) review process.<br><br>3. Follow-up calls to Region Surface Water Quality Monitoring (SWQM) staff were made. Field staff from the Region will reinvestigate the complaint. |
| 06 | 1. I concur with the River Authority that additional data submitted by the River authority for Segment 1424, the South Conch River, indicates that the aquatic life use is fully supported.<br><br>2. I also concur with the River Authority that nonsupport of the chloride criteria identified for segment 1425, O.C. Fisher Reservoir, is a result of extremely low reservoir levels and continuing evaporation during the period of assessment. | 1. Information submitted by Commentor has been included in the assessment, and this stream is identified as supporting the ALU.<br><br>2. The cause of high levels of dissolved solids in segment 1425 will be identified as resulting from natural causes. Changes in the year 2004 assessment methodology which consider the effects of unusual periods of drought on criteria attainment for dissolved solids will be developed by a stakeholder workgroup. |
| 07 | 1. Segment 1411, Lake E.V. Spence, due to drought conditions, Stations 12361 and 12360 have not existed within the reservoir pool since 1992 and should not be included in the assessment of the reservoir.<br><br>2. Segment 1411, Lake E.V. Spence, data from 13863 was not assessed.<br><br>3. Segment 1411, Lake E.V. Spence, the Public Water Supply is listed as a concern for chloride and sulfate on the Assessment Summary Sheet but is fully supported on the Assessment Data Sheet.<br><br>4. Why is there a lack of data (number of samples and exceedances) on the Assessment Data Sheet for 1411 and other segments? | 1. Data from these stations have been removed from the assessment.<br><br>2. The 2002 305(b) Assessment is based on the latest five years (March 1996- February 2001). Data from this station is not within the assessment period.<br><br>3. The Public Water Supply parameters chloride, sulfate, and TDS are screened against secondary drinking water standards (related to palatability) and only concerns are identified for these parameters. The Public Water Supply use is assessed for support/nonsupport using primary drinking water standards (toxic substances), and these criteria are fully supported.<br><br>4. Certain parameters (including chronic metals, chloride, sulfate, TDS) compare a mean to a criteria value, and therefore only means appear on the Assessment Data Sheets. Conversely, if the level of support was determined by the number of exceedances, |

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| | | then a mean will not appear on the Assessment Data Sheet. The overall use support is a summary record and does not represent a particular method. |
| | 5. Segment 1411, Lake E.V. Spence, noted that all listed concerns have been addressed by a completed TMDL. | 5. A TMDL for segment 1411 is still pending EPA approval. The assessment identifies parameters that exceed existing criteria and secondary concerns and are ongoing impairments and concerns. |
| | 6. Data utilized to assess a concern for depressed dissolved oxygen on segment 1412 was most likely sampled during periods of no flow. | 6. Although flow information is available for some dissolved oxygen exceedances, for three of the five measurements below the screening level there is no data to suggest conditions of zero flow. |
| | 7. The ALU for segment1412C is fully supported based only on 15 DO samples. No other field or primary inorganic parameters were shown in the Assessment Data Sheets. | 7. The 15 samples are the only data available for the assessment. Based on this very limited data the ALU is presumed to be fully supported. |
| | 8. The Public Water Supply use for segment 1413 is fully supported based on one sample. | 8. The Public Water Supply assessment is based in part on summary data provided from the Public Water Supply database of finished drinking water results. This database indicates water from Lake J.B. Thomas meets all criteria. |
| | 9. Additional study of excessive algal growth for segment 1421 must be done before an accurate assessment can be made. Samples and exceedances supporting the narrative nutrient concern and algal growth are not apparent. | 9. The assessment was based on exceptionally high levels of chlorophyll a and supported by high levels of nutrients. Fifteen of eighteen samples exceed the screening criteria and are indicated on the Assessment Data Sheet in the Nutrient Enrichment Category. |
| | 10. Why is segment 1421 assessed as a Public Water Supply below the City of San Angelo? | 10. The criteria apply to the entire segment. |
| | 11. For segment 1421A, the DO grab average for the ALU was assessed as no concern and no samples exceed the criterion. Why isn't the water body identified as fully supporting? | 11. Dissolved oxygen grab measurements are used to identify concerns by comparing results to average DO criterion (5.0 mg/L). Support of the average DO criterion requires 24 hour measurements and none were available for this water body. However, support of the DO minimum criterion (3.0 mg/L) can be determined by comparison to grab samples. |
| | 12. For segment 1421B, the DO grab average for the ALU was assessed as no concern and no samples exceed the criterion. Why isn't the water body identified as fully supporting? | 12. Dissolved oxygen grab measurements are used to identify concerns by comparing results to average DO criterion (5.0 mg/L). Support of the average DO criterion requires 24 hour measurements and none were available for this water body. However, support of the DO minimum criterion (3.0 mg/L) can be determined by comparison to grab samples. |
| | 13. For segment 1421D, the DO grab average for the ALU was assessed as no concern and no samples exceed the criterion. Why isn't the water body identified as fully supporting? | 13. Dissolved oxygen grab measurements are used to identify concerns by comparing results to average DO criterion (5.0 mg/L). Support of the average DO criterion requires 24 hour measurements and none were available for this water body. However, support of the DO minimum criterion (3.0 mg/L) can be determined by comparison to grab samples. |
| | 14. Data for segment 1426 shows recurrent segment exceedances for chloride, sulfate, TDS, associated with natural conditions, extended periods of drought and release of water from E.V. Spence Reservoir. | 14. The cause of high levels chloride, sulfate and total dissolved solids in segment 1426 will be identified as resulting from natural causes. |
| | 15. The Nutrient Enrichment concern for segment 1426 for ammonia may be associated with the release of anoxic bottom water from E.V. Spence reservoir. The Robert Lee WWTP discharges to this section of | 15. These sources were added to the assessment. |

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| | river. | |
| | 16. For segment 1426A the Public Water Supply is listed as a concern for chloride and sulfate on the Assessment Summary Sheet but is fully supported on the Assessment Data Sheet. | 16. The Public Water Supply parameters chloride, sulfate, and TDS are screened against secondary drinking water standards (related to palatability) and only concerns are identified for these parameters. The Public Water Supply use is assessed for support/nonsupport using primary drinking water standards (toxic substances) and these criteria are fully supported. |
| | 17. For segment 1426B, Nutrient Enrichment concern for nitrate + nitrite nitrogen is not associated with Ballinger WWTP. | 17. The source was changed in the assessment. |
| | 18. Station 15211 is incorrectly listed in O.H. Ivie. | 18. This error was corrected. |
| | 19. Public Water Supply for segment 1433 was assessed for the assessment location "remainder of reservoir", yet there were no sampling sites in this location. | 19. Public Water Supply Use is assessed for the reservoir as a whole, based on finished drinking water samples that use the segment as a water supply. |
| | 20. Although there is sufficient data, the Overall General Use category is not assessed for segment 1433. | 20. Criteria for chloride, sulfate, and TDS have not been established in this new reservoir. |
| | 21. Depressed DO for segment 1433 in the Concho River Arm is related to a "localized upset". | 21. Additional information is further defining this impairment will be considered when it is available. |
| | 22. A concern has been identified for chlorides and TDS for segment 1433. What criteria were used? | 22. A concern was identified for the Public Water Supply use based on screening levels for drinking water secondary constituents. |
| 08 | 1. The water utility should not be held responsible for impairment of the entire segment, 2307, for TDS, chloride, and sulfate. | 1. Municipal point source was not removed as source for 2307 TDS, chloride, and sulfate or bacteria. The source was reduced from moderate to minor. Sources are not related to a specific facility and it should not be assumed a source identified as municipal point source indicates a particular facility. |
| | 2. We concur with the recommendation that 2307 be divided into two segments. | 2. The TNRCC will review this recommendation for the next triennial revision of the TSWQS.. |
| | 3. There is a need for additional monitoring stations between Neely Canyon and Presidio and above the Guadalupe Bridge in the upper reaches of 2307. | 3. Additional monitoring stations will be addressed at the upcoming Coordinated Monitoring Meeting for the upper Rio Grande Basin. |
| | 4. How does the TNRCC define "remainder of segment"? | 4. Remainder of segment covers unassessed areas of the segment. |
| | 5. Identification of SH 136 as an assessment area boundary in 2314 is incorrect. There is no SH 136 in El Paso. | 5. TNRCC revised assessment area boundaries for 2314 to: New Mexico State Line to Upstream of Anthony Drain (2314-01) and Upstream of Anthony Drain to International Dam (2314-02). |
| | 6. The source for bacteria impairment in 2314 should not include municipal point source. The water utility does not impact this segment. Sources should be irrigation return flow from drains and canals serving large areas on the west side of El Paso and in New Mexico, sources outside the state, and CAFOs. | 6. Municipal point source was not directed at the utility. It was taking into account other wastewater discharges upstream. Municipal point source was not removed as a source. Sources outside state jurisdiction, CAFOs and irrigation return flow were added as sources. |
| | 7. Segment 2314 should be listed as a low priority for bacteria since it is an international/interstate water | 7. Current ranking methodology calls for any water body where contact recreation occurs should be given a |

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| | bordering Texas/New Mexico/Mexico, similar to 2307. | medium priority. Water bodies listed for contact recreation impairments are being addressed together for TMDL activites whether they are low or medium in rank. |
| 09 | 1. Habitat and benthic data identifying impairments in the lower portion of segment 1424 were sampled at a site with bedrock substrate. Data which were collected by the commenting entity at a more acceptable site for biological sampling indicate this stream should be removed from the list of impaired water bodies.<br><br>2. The nonsupport of the chloride criteria identified for segment 1425 is a result of extremely low reservoir levels and continuing evaporation during the period of assessment. | 1. Information submitted by Commentor has been included in the assessment, and this stream is identified as supporting the ALU.<br><br>2. The cause of high levels of dissolved solids in segment 1425 will be identified as resulting from natural causes. Changes in the year 2004 assessment methodology which consider the effects of unusual periods of drought on criteria attainment for dissolved solids will be developed by a stakeholder workgroup. |
| 10 | A stream reach within the assessment of segment 1421 should be expanded and previously unsubmitted data should be included to better reflect conditions at the sampling sites. | TNRCC has incorporated the subsegment "O.C. Fisher Dam to US Highway 87 bridge" into subsegment "Loop 306 to end of segment, including both north and south forks". Benthic data has been included in the assessment for this subsegment. This area of the stream does not support the ALU. |
| 11 | 1. Segment 1402A was found not supporting its exceptional ALU because fish and benthic data for the assessment were sampled during near-record drought conditions. Also, under current assessment methodolgy, it is unlikely that the segment will ever attain its designated ALU of exceptional.<br><br>2. Segment 1407 is partially supporting its ALU due to depressed DO levels because of periodic releases of anoxic water from an upstream reservoir during periods of stratification.<br><br>3. Segments 1404, 1405, and 1406 were all identified as concerns for depressed DO. This is a naturally occurring, temporary event that occurs during seasonal lake turnover and does not impair the biological community.<br><br>4. Commentor recommended some changes to data presentation on the web that will provide the public a better understanding of the assessment process. | 1. The ALU designation will be reviewed for the next revision of the Texas Surface Water Quality Standards. Changes in the method for biological assessment which consider unusual periods of drought will be discussed by a stakeholder workgroup, developing guidance for the 2004 assessment.<br><br>2. Release of low DO water from the dam will be identified as the cause for criteria non-attainment.<br><br>3. The cause of low DO will be identified as natural.<br><br>4. The TNRCC has plans for a progressively more complete presentation of assessment results and the field and laboratory measurements that support them. |
| 12 | Submitted Clean Rivers Program (CRP) contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution. They requested TNRCC review additional bacteriological data. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants.<br><br>Additional bacteriological data were reviewed and resulted in the following changes:<br><br>- One sub-segment in 1806 was changed from not assessed to not supporting.<br><br>- One sub-segment in 1818 was changed from not supporting to fully supporting. |
| 13 | We recommend increased sampling of Lake Wright Patman in order to pinpoint areas contributing pollutants to the reservoir. Additionally, sediment sampling should be conducted due to detects above the minimum reporting levels. | Sediment samples collected by TNRCC during the past 5-year period have produced few exceedances of the 85$^{th}$ percentile and no exceedances of the Probable Effects Levels (PELs). TNRCC staff will continue to monitor Lake Wright Patman water and sediment. |
| 14 | 1. We agree with the listing of Segment 0101 as a | 1. Secondary concerns identify elevated concentrations |

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| | concern for ammonia, based on exceedances of criteria in 21 of 27 samples. We recommend this water body be ranked medium for development of a TMDL. | that exceed screening levels for indicators, such as nutrients and chlorophyll *a*, for which water quality standards have yet to be adopted. For this reason these concerns do not trigger TMDL action and are addressed through increased monitoring and other agency water quality control programs. |
| | 2. We support the new listing of the Middle Fork Wichita River for chronic selenium toxicity in water. We believe the general area to be seleniferous, based on limited tissue and water data collected by the U.S. Army Corps of Engineers. TPWD recommends this segment be ranked high for TMDL development. | 2. The Corps of Engineers has collected more extensive selenium data and is in the process of issuing a report. Additionally, the Middle Fork Wichita River has been ranked high for TMDL development, based on the new listing for selenium.<br>Draft rankings were assigned at the January 31/February 1 public ranking meeting and will be formally available for public comment as part of the Integrated Report in June. These comments will be considered during the public comment period. |
| | 3. We recommend that Segment 0508C (Hudson Gully), which is listed for new impairments, be rolled into the existing TMDL for low DO and bacteria for Segment 0508 (Adams Bayou). | 3. Hudson Gully has been rolled into the existing TMDL for low DO and bacteria for Segment 0508 (Adams Bayou). |
| | 4. We recommend that Attoyac Bayou should be ranked high for TMDL development due to acute copper toxicity. We question the use of the bayou as a reference stream for determining appropriate aquatic life use for Angelina River/Sam Rayburn Segment 0615, since copper toxicity has been identified. | 4. Attoyac Bayou is currently ranked high for TMDL development due to acute copper toxicity. At the time of the Angelina River/Sam Rayburn Reservoir use attainability, copper toxicity in Attoyac Bayou was not identified. EPA Region 6 has recommended designation of a high aquatic life use for Segment 0615. The TNRCC has no plans to challenge EPA's recommendation, establishing a high aquatic life use for Segment 0615, by re-evaluation of Attoyac Bayou data. Control of the acute copper toxicity would be required for Attoyac Bayou if it is to be used as a reference site in the future. |
| | 5. Segment 0615 (Angelina River/Sam Rayburn Reservoir) has an impaired fish community based on biological assessment and chronic lead toxicity in water; both conditions contribute to nonsupport of the aquatic life use and are ranked high for TMDL development. The segment also has acute copper toxicity in water; this condition contributes to partial support of the aquatic life use and is ranked medium for TMDL development. TPWD recommends all conditions be ranked high for TMDL development. | 5. Conditions such as acute copper toxicity in Segment 0615 that result in partial support of a designated use are generally ranked medium according to the ranking criteria. Additional data collection would be required to determine if the aquatic life use is not supported due to acute copper toxicity. Ranking of a segment, however, for TMDL development is ultimately determined by the highest ranked condition; Segment 0615 is ranked high. |
| | 6. Papermill Creek (0615-A) is ranked low for TMDL development due to nonsupport of the aquatic life use by acute zinc and copper toxicity in water. TPWD recommends the conditions be ranked high for TMDL development. | 6. The acute copper and zinc toxicity problems in Papermill Creek originate from one industrial discharger. These conditions were ranked low for TMDL development, since they can be controlled more efficiently through the permitting process. |
| | 7. Segment 0818 (Cedar Creek Reservoir) is ranked low for TMDL development with respect to nonsupport of general uses due to high pH. TPWD recommends that this condition be ranked high for TMDL development. | 7. Draft rankings were assigned at the January 31/February 1 public ranking meeting and will be formally available for public comment as part of the Integrated Report in June. These comments will be considered during the public comment period. |
| | 8. Segment 0836 (Richland-Chambers Reservoir) is ranked low for TMDL development with respect to nonsupport of general uses due to high pH. TPWD recommends that this condition be ranked high for TMDL development. | 8. Draft rankings were assigned at the January 31/February 1 public ranking meeting and will be formally available for public comment as part of the Integrated Report in June. These comments will be considered during the public comment. |

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| | 9. Regarding off-segment water bodies listed for low DO in segments 1007, 1008, 1013, 1014, 1016,1017 and 2424A, these are typically wastewater dominated tributaries in which we have documented fish kills. There is a combination of point and nonpoint sources. We recommend changing the TMDL ranking from low to medium. | 9. Draft rankings were assigned at the January 31/February 1 public ranking meeting and will be formally available for public comment as part of the Integrated Report in June. These comments will be considered during the public comment period. Aquatic life use assessments (to determine appropriate aquatic life use designations) on several of the off segment water bodies are being proposed. |
| | 10. Clear Creek Above Tidal 1102 is listed for chloride and total dissolved solids and we agree with oil activity as a source. We recommend changing the TMDL ranking from medium to high. | 10. See response for comment # 9 |
| | 11. Country Club Branch should be listed for water and sediment toxicity. | 11. Four water samples were collected by TPWD on one day several days after a spill of copper into Finfeather Lake (upstream of Country Club Branch). Data was not incorporated into the assessment database because it did not meet ambient data requirements. However, since exceedingly high values were reported for copper in water, the assessment was changed to report a narrative concern for copper in water. In addition, four sediment samples were collected by TPWD, but this was not enough samples for assessment of sediment. |
| | 12. We request that the ranking for Lake Sommerville, which is listed for low and high pH, be changed from low to medium or high TMDL ranking priority. | 12. See response for comment # 9 above. |
| | 13. Nolan Creek, segment 1227, was incorrectly identified as the location of a fish kill. | 13. The incorrect reference for the 1997 fish kill has been removed for the Nolan River, segment 1227. |
| | 14. We request the 7Q2 for portions of segment 1602 be re-evaluated so that additional data would be included in the assessment. | 14. The Water Quality Assessment Team re-evaluated the 7Q2 for individual stations in this portion of the segment. Additional24 hour DO data was used in the assessment, and the outcome changed from "NA" to a "concern" for ALU based on the 24- hr information. |
| | 15. We request that segment 1246E in the Middle/South Bosque River Watershed receive a high priority ranking for TMDL development on the 303(d) List | 15. Segment 1246E was given a low priority ranking for new TMDL developoment. The sources of impairments for this waterbody are being addressed by an existing TMDL currently approved by EPA. |
| | 16. Linville Bayou 1304A was listed for acute zinc toxicity and permitting in the segment should be scrutinized. | 16. After re-evaluation based on site specific zinc criteria based on hardness, it was determined that there is no longer an acute zinc toxicity effect, so the segment will not be listed for acute zinc toxicity**.** |
| | 17. Segment 1402A is not supporting the designated ALU due to current assessment methodology for biological data that does not allow for varying conditions such as drought. | 17. The ALU designation will be reviewed for the next revision of the Texas Surface Water Quality Standards. Changes in the method for biological assessment which consider unusual periods of drought will be discussed by a stakeholder workgroup, developing guidance for the 2004 assessment. |
| | 18. Depressed DO in segment 1407 is due to hypolimnetic releases from an upstream dam. | 18. Release of low DO water from the dam will be identified as the cause for criteria non-attainment. |
| | 19. There is a new listing for chloride impairment for segment 1411 and should be included in the TMDL for TDS and sulfates. | 19. The new listing for chloride in the initial draft has been removed. The stations used in the initial draft are in the riverine portion of the lake and not representative. These stations were not included in the assessment for the segment. |

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| | 20. Because segment 1426 is newly listed for chloride and receives water from segment 1411, we suggest that segment 1426 be considered with the TMDL efforts associated with segment 1411 and receive a medium priority.<br><br>21. We request that several unclassified tributaries in the Bosque River Watershed receive a high priority ranking for TMDL development.<br><br>22. Highland Bayou 2424A listed for low DO. These are tributaries in which we have documented fish kills. We recommend changing TMDL ranking from low to medium.<br><br>23. A high rank for TMDL development for segment 2456 is suggested because of new listings for pH and nutrient concerns, as well as an exiting bacteria listing. | 20. A TMDL for segment 1411 is pending EPA approval. TNRCC's TMDL program will consider and discuss this suggestion with EPA.<br><br>21. These waterbodies were given a low priority ranking for new TMDL development. These waterbodies are already included in an existing TMDL currently approved by EPA.<br><br>22. See response for comment # 9<br><br>23. Draft rankings were assigned at the January 31/February 1 public ranking meeting and will be formally available for public comment as part of the Integrated Report in June. These comments will be considered during the public comment period. |
| 15 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution.<br><br>General comments included suggestions to further monitor areas with exceedances of the TSWQS. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants. |
| 16 | 1. The Patrick Bayou TMDL Lead Organization (Lead Organization) concurs with the Commission's decision to de-list Patrick Bayou for copper and toxicity in the water.<br><br>2. Patrick Bayou should only be assessed for navigational and industrial water supply because those are the only uses specified for the Houston Ship Channel Tidal Segment 1006 (which contains Patrick Bayou). In absence of contrary evidence, the 305(b) Inventory should indicate these uses are fully supported.<br><br>3. Patrick Bayou is not specifically designated in the Texas Surface Water Quality Standards, as part of Houston Ship Channel Tidal Segment Number 1006, for aquatic life use (ALU) and therefore, it should not be assessed for support of ALU in the 305(b) Inventory. Additionally, there are no toxicity, metals, | 1. The Commission acknowledges the Lead Organization's comment. Copper was de-listed because the copper standard was changed and existing data indicates that the criteria is fully supporting. Acute toxicity in water was de-listed due to recent new data.<br><br>2. The Commission is reviewing the Lead Organization's comments on the Draft 305(b) Water Quality Inventory for 2002, considering the issues that it raised, and will make a response available to the public. As stated in the introduction to this document, comments were received based on the Commission's Draft 305(b) Water Quality Inventory for 2002. The Commission determined that a five-part categorization, based on EPA's 2002 Integrated Water Quality Monitoring and Assessment Report Guidance, allows for more appropriate characterization of waters in the State and more clearly focuses efforts to further address water quality issues. Using these categories, the Commission proposes Patrick Bayou in Category 4(d) for thermal modifications, in Category 4(e) for chronic toxicity in sediment, metals in sediment, and organics in sediment, and in Category 5 for PCB's in fish and crab tissue, dioxin in fish and crab tissue, and pesticides in fish and crab tissue. The Commission solicits additional input and data on Patrick Bayou that may impact its categorization in the Final 2002 Integrated Report.<br><br>3. Please refer to Response 2. |

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| | or organics sediment criteria adopted by rule. Furthermore, even if an ALU did apply, the data show no reason to believe that ALU would not be supported, regardless of existing sediment contamination.<br><br>4. The Commission must not use a specific temperature criterion to evaluate Patrick Bayou for support of the general use. The appropriate test is the Balanced Indigenous Population (BIP) Standard established by the Clean Water Act and supporting regulations. The benthic organisms existing in Patrick Bayou are within the range that is to be expected for the water body and the Commission has not made any showing that the BIP standard is not being met.<br><br>5. The 305(b) Inventory should not indicate that Patrick Bayou is not meeting the Fish Consumption Use (FCU) for two reasons. First, Patrick Bayou meets all fish consumption-related criteria that are applicable under the water quality standards. Second, the Texas Department of Health (TDH) fish advisory is not an appropriate basis for a non-support determination, notwithstanding that the 305(b) Methodology states that a TDH no-consumption advisory indicates non-support.<br>6. Barium in sediment should not be included as a sediment contaminant concern because the Commission's Corrective Action Section has confirmed that barium in groundwater occurs at a naturally higher concentration than applicable groundwater protection standards.<br><br>7. Because the Commission requires the 305(b) Inventory and 303(d) List to be fundamentally consistent, the Lead Organization is concerned that the current assessment of Patrick Bayou contained in the 305(b) Inventory will require Patrick Bayou to be included on the 303(d) list as impaired for ALU, general use, and FCU. The Lead Organization states that the Commission should change the Draft 305(b) Inventory as discussed in the comments.<br><br>Further, in accordance with EPA's recent Integrated Water Quality Monitoring and Assessment Report Guidance (Integrated Guidance), Patrick Bayou should not be listed as impaired and requiring a TMDL. Patrick Bayou should be included in Category 2 under the Integrated Guidance as "attaining some of the designated uses; no use is threatened; and insufficient or no data and information is available to determine if the remaining uses are attained or threatened." Alternatively, Patrick Bayou may be included in Category 4(c), which is appropriate for waters that are "impaired or threatened for one or more designated uses but does not require the development of a TMDL," because the impairment is not caused by a pollutant. | 4. Please refer to Response 2.<br><br>5. Please refer to Response 2.<br><br>6. Please refer to Response 2.<br><br>7. Please refer to Response 2. |
| 17 | We have concerns regarding TNRCC's conclusions for Segment 0824 (Elm Fork Trinity River above Ray Roberts Lake), and requested data and information.<br><br>1. The conclusion that the source category for bacteria is "municipal point source" fails to provide information or analysis on which this conclusion was based. | 1. Characteristics of the segment were further reviewed, and sources relating to bacteria impairments and nutrient concerns were revised to consist of "unknown point |

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| | | source" and "unknown nonpoint source". |
| | 2. "Concerns" about nutrient enrichment do not include an assessment of the 3.5 mile reach near SH 51. | 2. This reach was NA for nutrient enrichment because adequate monitoring data were not available for the period of record. |
| | 3. We request a summary of monitoring data for the segment for the last five years for fecal coliform, E. coli, nitrate + nitrite nitrogen, orthophosphorus, total phosphorus, algal growth (chlorophyll a), DO, and ammonia. | 3. Staff provided the requested monitoring data. |
| | 4. We request a list of all permitted wastewater dischargers to the segment. | 4. Staff provided the requested list of dischargers. |
| | 5. We request a copy of self-reporting data for all permitted wastewater dischargers to the segment for the last five years. | 5. Staff provided the requested self-reporting data. |
| | 6. Will TNRCC accept additional sampling data before it makes a final determination as to whether the segment should be included on the 303(d) list. | 6. TNRCC encouraged that additional data be submitted during the 305(b) comment period (1/21-2/19/02) to ensure staff had sufficient time to review it along with any associated quality assurance information. Any data received during the June 2002 Integrated Report comment period must be provided in a summarized format and include all data for all collecting entities for the entire 5 year period of record (3/1/96-2/28/01). Data collected more recently than 2/28/01will be accepted only in the case that there is compelling evidence that conditions have changed in the water body due to new processes such as implementation of best management practices or facility upgrades. |
| 18 | Available data submitted by Commentor were not used in the assessment. Additional suggestions were made for methodology improvement. | Information submitted by the Commentor has been considered for the assessment. Numerous new water bodies are now assessed. Suggestions will be considered by a stakeholder workgroup before the next assessment. |
| 19 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants. |
| 20 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants. |
| 21 | We have concerns about 7Q2's for individual stations generated for Segment 1602 which resulted in the use of additional 24-hr data. In the initial draft assessment, the 24-hr data in question had been excluded because it was collected under 7Q2 conditions on segment 1602. | There is a precedence in the TSWQS for using individual station 7Q2's . The assessment using individual 7Q2's for upper stations on segment 1602 was not changed and continues to result in a Concern for DO. |
| 22 | The River Authority has concluded that their metals in water data collected in 1998 and 1999 were invalid and recommended the removal from the agency TRACS database. | Aquatic life use impairments in Attoyac Bayou due to copper (acute) and lead (chronic) were removed. Water quality concerns due to elevated metals for unclassified streams throughout the upper Angelina and Neches basins were also removed. |
| 23 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants. |
| 24 | Submitted the following comments and requests for information pertaining to Clear Fork Trinity River | |

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| | Segments 0831 and 0833. | |
| | 1. Which version of the 303(d) list is in effect for regulatory purposes? | 1. The 1999 303(d) list is in effect for regulatory purposes. |
| | 2. Is TNRCC planning to conduct Use Attainability Analyses on these two segments? If yes, please provide a work plan and timeline for the studies, and copies of any available reports or data summaries. | 2. Use Attainability Analyses (UAA's) are underway on both segments. They are being conducted by the Texas Institute for Applied Environmental Research under contract with the TNRCC TMDL Team. Sampling is scheduled to be completed during the summer of 2002. Provided the commentor a copy of the work plan, timeline, and information on how to obtain the data. |
| | 3. We request a summary of monitoring data for DO, fecal coliform, and E. coli for the past five years. | 3. Staff provided the requested monitoring data. |
| | 4. We request a list of permitted wastewater dischargers. | 4. Staff provided the requested list of dischargers. |
| | 5. We request self-reporting data for permitted wastewater dischargers for the past five years. | 5. Staff provided the requested self-reporting data. |
| | 6. Has the TNRCC identified any potential sources relating to the bacteria impairment in the upper 11 miles of Segment 0831. | 6. Potential sources of this impairment have been identified as "unknown point sources" and "unknown nonpoint sources". |
| | 7. Is there justification for keeping Segment 0831listed given that the 2002 Summary of Impaired Water Bodies does not identify this segment for DO levels, and the Fact Sheet identifies DO levels as a "concern" rather than an impairment. | 7. TNRCC policy is to keep previously listed water bodies listed until sufficient data are available to re-assess the water body and justify removing them. |
| | 8. Was the initial listing of Segment 0831 for DO in 2000 based on 24-hour average sampling or grab sampling. | 8. The initial listing was based on grab sampling data. |
| | 9. If grab sampling the basis for the initial listing of Segment 0831 for DO, then what is the rationale for requiring 24-hour sampling to remove the segment from the list. | 9. In past 305(b) assessments, grab sampling data were screened using the 24-hour average criterion, and the results were used to list water bodies. This approach was used because that was the only type of data available at the time. The Texas Surface Water Quality Standards, however, require that 24-hour data be available in order determine criteria support. TNRCC assessment/listing/delisting policies were revised. Grab sampling data are now used to list water bodies only through comparison to the DO minimum criterion. And, water bodies previously listed can only be removed if sufficient 24-hour data meet the 24-hour criterion. |
| | 10. Why have there been an insufficient number of 24-hour DO sampling results obtained since Segment 0831 was placed on the 2000 list. | 10. This is due to a time lag between policy changes described above and implementation of needed monitoring through the Coordinated Monitoring Process. Use Attainability Analyses currently underway will help provide adequate 24-hour DO data for potential delisting. |
| | 11. Will TNRCC accept sampling data generated by or on behalf of the City to assess compliance with the standards. | 11. TNRCC will accept data generated by outside entities for 305(b) assessment purposes provided that sample collection and analysis procedures and data submittal activities are conducted under the guidelines of a TNRCC-approved Quality Assurance Project Plan (QAPP). |
| | 12. If the answer to question 11 is yes, what are the criteria that must be followed in collecting, analyzing, and submitting the results of the sampling to TNRCC. | 12. The typical avenue for monitoring by an outside entity, with data submitted to TNRCC for 305(b) assessment purposes, is through that basin's river authority, under the umbrella of that river authority's |

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| | | QAPP. Additionally, TNRCC encouraged that additional data be submitted during the 305(b) comment period (1/21-2/19/02) to ensure staff had sufficient time to review it along with any associated quality assurance information. Any data received during the June 2002 Integrated Report comment period must be provided in a summarized format and include all data for all collecting entities for the entire 5 year period of record (3/1/96-2/28/01). Data collected more recently than 2/28/01will be accepted only in the case that there is compelling evidence that conditions have changed in the water body due to new processes such as implementation of best management practices or facility upgrades. |
| | 13. The TNRCC has not identified a potential source category for the DO impairment or bacteria concern in Segment 0833. We suggest that there is some evidence that agricultural operations in the watershed may be contributing to these conditions. We urge the TNRCC to make it a high priority to identify and address potential source categories to protect the City's drinking water supply source, Lake Weatherford, into which Segment 0833 flows.<br><br>14. Please provide an explanation of why the lower 11 miles of Segment 0833 are identified under the categories of both "use impairment" and "concerns" based on depressed DO. | 13. Potential sources of these conditions have been identified as "unknown point sources" and "unknown nonpoint sources". Whereas agricultural operations may be contributing to these conditions, TNRCC presently has no definitive supporting evidence. Potential point sources of contaminants may receive close scrutiny if a TMDL proves necessary. The Use Attainability Analysis currently underway will address these issues..<br><br>14. Two methods are used to assess grab sampling data. The first compares instantaneous values to the 24-hour average criterion, and can only be used to identify a concern. Based on that approach, DO in the lower 11 miles was shown to be a concern. The second compares instantaneous values to the minimum criterion, and can be used to identify a concern or an impairment, depending on the number of measurements and level of exceedance. Based on this approach, DO in the lower 11 miles was shown also shown to be an impairment. |
| 25 | 1. TNRCC should de-list Del Rio (Station ID 13560) and below for ambient water toxicity.<br><br>2. TNRCC should de-list Eagle Pass (Station ID 13205) for ambient water toxicity . Additional data shows that the water is not toxic to *Ceriodaphnia dubia*. The draft 305(b) states that due to insufficient data both will remain on the list for ambient water toxicity. | 1. Additional data was not available for the first draft of the assessment for the subsegment below Del Rio. This section of river remained a concern. The additional data provided in this comment letter is sufficient to reassess this subsegment. There are 13 samples with 4 showing sublethal affects. According to the guidance, sublethal affects (young per female) are used in the assessment. The additional samples move the status from a Tier 1 concern to partially supporting. This segment is part of an ongoing statewide toxicity TMDL project.<br><br>2. Area below Eagle Pass was de-listed following the 2002 305(b) assessment. A sufficient data set was available and the subsegment is FS. |
| 26 | 1. The Nolan River should not be listed for non-support of general uses for high levels of sulfate and TDS, due to the fact that few samples were collected with only one site and the exceedances are due to natural sources.<br><br>2. Some fecal coliform data were collected for the Nolan River, during storm events and will result in the listing of the segment. The TNRCC procedures manual states that data should be collected at least 48 hours after a significant rainfall. The data should be | 1. Sampling on the Nolan River was conducted over a 5-year period in compliance with TNRCC guidance for number of sampling events and site selection. The segment is listed because the TSWQS are exceeded.. However, a ranking of low priority will result from the determination that natural sources are likely the cause of high levels of sulfate and TDS.<br><br>2. The procedures manual states that samples should be collected at least 48 hours after a significant rainfall event in compliance with the 5x/30 days collection requirements in the TSWQS. However, routine monitoring used to calculate a long-term average requires |

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| | removed and the segment should not be listed.<br><br>3. Fecal coliform data were collected during low flow conditions and near agricultural areas where livestock graze. Additionally, the listing for non-support of the Contact Recreation use may affect the recreation in Lake Pat Cleburne. | samples to be collected in varying flow conditions.<br><br>3. Nolan River samples were collected under varying flow conditions in accordance with TNRCC guidance. Three of eleven samples exceeding the criterion and the Contact Recreation use is not supported. Lake Pat Cleburne did not have sufficient data to assess the Contact Recreation use. |
| 27 | 1. Three of five fecal coliform exceedances in Prairie Creek (0606A) were collected during flood events and should not apply. No bacteria data have been collected since 1997 to determine the present condition, and we suggest changing the nonsupport status to a use concern.<br><br>2. We request that 3 additional zinc in water samples (each <8 ug/L), collected after 2/28/01, be included in Neches River (0606) assessment.<br><br>3. We also request 3 additional pH (each >6.5) measurements be included in the Neches River (0606) assessment. We are also concerned that 2 of the pH exceedances occurred during flood flows. | 1. A total of 18 fecal coliform samples were included in the assessment including 7 since 1997 collected by the TNRCC. Fecal coliform criteria apply at all stream flows including flood events. The three samples collected during flood events do not bias the data set toward high flows. The nonsupport status for the water body was based on an elevated mean concentration (259/100mL).<br><br>2. Addition of the 3 zinc samples does not change the acute assessment. The addition of the three samples lowers the mean from 89.8 ug/L to 72.6 ug/L, is still indicating nonsupport based on the chronic criterion.<br><br>3. Addition of the 3 conforming pH measurements does not change the assessment (3 exceedances in 15 samples = partial support). Measurements of pH does apply at all flows greater than the 7Q2. |
| 28 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants. |
| 29 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants. |
| 30 | 1. We recommend that segments not be divided into subsegments. This is in order to have a "watershed approach" to assessing the data.<br><br>2. Stations and data are missing from the assessment. Station descriptions and correct segment mileages are provided.<br><br>3. Streams should not be subdivided when the impairment is common throughout the segment. | 1. Subsegments were delineated based on TNRCC assessment guidance.<br><br>2. Several missing stations will be added to the list in the 305(b). These stations were included in the original assessment. Missing data will be added to Buffalo Bayou Tidal (Station ID 15825). The additional data will not change the overall outcome of the assessment.<br><br>3. Data from streams with an impairment noted along the entire length were not subdivided. This comment resulted in changes to Brays Bayou Above Tidal (1007B-415 fecal coliform samples) and Sims Bayou Above Tidal (1007D-169 fecal coliform samples). The impairment for both was bacteria only. The final assessment results were identical using both methods. |
| 31 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants. |
| 32 | A citizen submitted public comments and two lengthy enclosures; however, much of the information was not specific to the 2002 305b assessment. These generic comments may be used at other times by the TNRCC to revise water quality standards, the assessment | |

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| | guidance, and listing methodology. Comments that are specific to the 2002 assessment are addressed below:<br><br>1. Manganese and aluminum concentrations in water and sediment may contribute to declining aquatic vegetation and fish stocks from Sam Rayburn Reservoir and Lake Fork. | 1. The TNRCC and EPA have not established aquatic life or human health criteria for manganese in water, and the TNRCC has not screened for its presence in the 305b assessment process, because manganese is rarely found in surface water at concentrations exceeding 1.0 mg/L. Toxicity due to manganese in water has been reported in the range of 1.5 to 1,000 mg/L. Thus, manganese is not generally considered a problem in freshwater. The TNRCC has established a secondary constituent level of 0.05 mg/L for manganese in public water supplies. The secondary constituent levels are established to protect drinking water supplies primarily from color and taste/odor problems. However, manganese is normally removed by conventional water treatment through oxidation, coagulation, and precipitation. The TNRCC does not screen for secondary drinking water constituents in the 305b assessment process. When manganese exceeds a concentration of 0.15 mg/L in treated water, objectionable color and tastes in beverages and brownish staining of laundry may be reported.<br><br>The TNRCC has modified the acute aluminum in water concentration based on a water effect ratio study. The results of the study increased the aluminum acute criterion from 991 ug/L to 8,314.49 ug/L. The 2002 305b assessment revealed that aluminum concentrations for all sites in Paper Mill Creek and the Angelina River/Sam Rayburn Reservoir (Segment 0615)were less than the revised acute criterion.<br><br>There were too few samples (< 10) available at all sites in Segments 0610 and 0615 and Paper Mill Creek during the 2002 305b assessment to draw confident conclusions concerning metals concentrations in sediment or water and sediment toxicity testing results. The 2002 305b assessment screening process did not include a screening method for manganese and aluminum. |
| | 2. Classification of Paper Mill, Tom, and Mill Creeks with intermittent flow status is questioned. | 2. TNRCC staff use USGS maps only as an initial indicator of flow status in a stream. A dotted blue-green line on a USGS map typically identifies a stream as having intermittent flow, while a solid line identifies perennial flow status. The maps are backed by aerial photography taken near the time the maps were made. In the case of Paper Mill Creek and its tributaries, additional data submitted by the Champion International Corporation were used. Photographic evidence provided by the Corporation documented that Tom, Hottle, Willis, and Kolb creeks near SH 103 were completely dry with no standing pools in the summer of 1992. Tom, Hottle, Willis, and Peach Creek were surveyed again in the summer of 1995 and no flow was again observed in all the streams. Flow measurements made in Mill Creek near the confluence with Paper Mill Creek at Aqueduct Road by the Corporation in the summers of 1992, 1993, and 1995 were all less than 0.1 cfs. In the summer of 1994 flow in Mill Creek remained above 0.1 cfs. Based on this preponderance of data, intermittent flow status was assigned to Mill and Paper Mill Creek by the TNRCC, since the streams have flows less than 0.1 cfs for a period of a week in most summers.<br><br>3. The 2002 305b assessment was based on the latest five |

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| | 3. Differences in findings for Sam Rayburn Reservoir between the 1996 and 2002 305b assessments are questioned. Differences between the 2000 303(d) List and the 2002 305b assessment are also questioned. | years (March 1996-February 2001) of water quality data. The 1996 305b assessment was also based on a five year period (September 1990-August 1994), so the two assessments share no data. The TNRCC uses only the last five years of data in the 305b assessment to ensure that problems corrected through water quality management activities are not be reflected in the latest assessment. Uncorrected, persistent problems that still exist would be identified in subsequent years. The minimum number of samples required for assessment also increased from four to ten in most instances. This change was made to improve the overall confidence in the assessment results. Some of the aquatic life use impairments (due to low DO) and all of the sediment concerns identified in the 2000 305b assessment were NA in the 2002 305b assessment due to insufficient sample numbers; in other cases (such as pH) data indicate improvements. All of the low DO problems identified in Sam Rayburn Reservoir on the 2000 303(d) List will be carried forward as impaired on the 2002 Integrated Report. These problem areas will not be removed from list until sufficient 24-hour data, indicating compliance with the criterion, are collected. Primary water quality concerns were identified in cases where there were four to nine samples; these areas will be targeted for additional sampling during coordinated monitoring meetings in the spring of 2002 by agencies sampling the Neches River Basin, so a full assessment will be completed during the next 305b reporting cycle. Finally, Segment 0615 (Angelina River/Sam Rayburn Reservoir) was created between the dates of the two assessments. Water quality impairments noted for the upper portion of Sam Rayburn Reservoir (Segment 0610) in 2000, appear in Segment 0615 in the 2002 assessment. |
| | 4. A suggestion is made that more emphasis should be placed on biological indicators that integrate water quality rather than so much reliance on field and laboratory parameters. | 4. The TNRCC staff agrees that biological community assessment should be used to more directly assess aquatic life uses. Designation of the high aquatic life use for newly created segment 0615 was based primarily on biological assessment of the fish community. Through recent assessment of the fish community, impairment of the aquatic life use for Segment 0615 was identified in the 2002 305b assessment. |
| | 5. The binomial method is not appropriate for assessing water and sediment samples collected at the frequency that the TNRCC employs for Segments 0610 and 0615. | 5. The binomial method cannot solve the problems of infrequent monitoring or non-representative samples. TNRCC staff, with help from a large stakeholder group, developed requirements for sample numbers and a period of record that it considers adequate. |
| 33 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants. |
| 34 | We disagree with the approach of using the same criteria for listing and delisting water bodies and suggest a more rigorous procedure be implemented to delist a water body. | TNRCC staff recognize the need to develop differing procedures for listing and delisting. This topic will be addressed at the next stakeholder meeting convened to consider changes to the assessment guidance. |
| | Comments on specific water bodies:<br>1. Removal of chronic lead and cadmium toxicity in water aquatic life use impairments for Attoyac Bayou (0612) from the 2000 303(d) List is questioned. The area covered from the 2000 listings appear to cover the | 1. While the area, identified on the 2000 303(d) List with an impaired aquatic life use due to chronic and cadmium toxicity in water, appears to cover the entire segment, the impairment was actually limited to one site in the lower |

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| | entire segment. | portion of the segment (Site ID = 10636; SH 21 near Chireno). Data assessed from the same site for the 2002 assessment revealed no toxicity for either cadmium (12 samples; mean = 0.19 ug/L) or lead (12 samples; mean = 0.25 ug/L). Metals samples collected at the two additional sites upstream were too few to assess. |
| | 2. Armand Bayou Tidal (1113) data was close to the number needed to support continued listing for contact recreation. Data were inadequate to overcome the presumption of impairment when using the binomial approach. | 2. Current guidance was applied to this segment. The geometric mean (144), the grab sample % exceedance (22%), and an adequate number of samples (41) were all within the range to de-list. If the binomial approach was not used, it still would have been de-listed because partially supporting does not apply for contact recreation. |
| | 3. The North Bosque River (1226) data was close to the number needed to support continued listing for contact recreation. Data were inadequate to overcome the presumption of impairment when using the binomial approach. | 3. Current guidance was applied to this segment. The geometric mean, the grab sample % exceedance, and an adequate number of samples were all within the range to de-list. If the binomial approach was not used, it still would have been de-listed because partially supporting does not apply for contact recreation. |
| | 4. The bacteria data for segment 1414 does not reflect sampling activity in the portion currently listed as impaired for bacteria. | 4. The portion of segment 1414 that was listed on the 2000 303(d) list as impaired for bacteria is included in the 2002 subsegment "Gillespie County line to Gellerman Lane". This subsegment has 34 bacteria samples collected within the recent 5 year assessment period. |
| | 5. West Bay ( 2424) sampling results do not reflect any sampling within the portion of the segment for copper (chronic). The segment was de-listed as impaired for copper (chronic) in water on the 2002 Integrated Report. | 5. While the area, identified on the 2000 303(d) List with an impaired aquatic life use due to chronic copper in water, appears to cover the entire segment, the impairment was actually limited to 8 sq. miles around one site (Site ID = 13325; Carancahua Reef). Data assessed from the same site for the 2002 assessment revealed coper to be FS (17 samples; mean = (1.861 ug/L; criterion 3.6). |
| | 6. The removal of an oyster water (bacteria) use impairment from the 2000 303(d) List for Oso Bay (2485) is questionable. Consider enterococci data to determine if use is supported. | 6. Support of the oyster waters use is primarily based on classification of shellfish harvesting maps prepared by the Texas Department of Health (TDH). Most of the classified areas are backed by extensive fecal coliform data collected by the TDH. In the case of Oso Bay, only one site is monitored near the mouth of the bay, and fecal coliform data meet the criteria. However, Oso Bay is classified as restricted based on high risk due to close proximity of major wastewater treatment plants. Restricted areas based on high risk, when bacteriological data indicate acceptable densities, are assessed with primary concerns due to a change in the 2002 assessment guidance.<br><br>Oso Bay meets less stringent contact recreation use criteria based on fecal coliform data collected by the TNRCC (12 samples, 1 exceedance, mean = 60/100 mL). A tier one primary concern has been identified based on enterococci data (6 samples, 3 exceedances, mean = 60/100 mL. Additional enterococci data will be required to determine if the contact recreation use is impaired. These data are being collected and will be available for the next assessment period. |
| | 7. The Lower Galveston Bay (2439) sampling results indicate on ly 8 sq. miles sampled. The 2002 listing does not indicate impairment limited to only this portion of the segment. | 7. While the area, identified on the 2000 list with an impaired aquatic life use due to chronic copper in water, appears to cover the entire segment, the impairment was actually limited to 8 sq. miles.<br><br>8. Current guidance was applied to this segment. The |

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| | 8. Cow Bayou above Tidal (0511A) data was close to the number needed to support continued listing for contact recreation. The data were inadequate to overcome the presumption of impairment when using the binomial approach.<br><br>9. It is difficult to understand a geometric mean of 413 for *E. coli* when no individual single sample exceeded the single sample standard of 394 for Red River below Pease River (0205). | geometric mean (183), the grab sample % exceedance (29%), and an adequate number of samples (21) were all within the range to de-list.<br><br>9. The geometric mean of 413 was a typographical error. The actual mean was 77. There were no exceedances for *E. coli* in this segment. |
| 35 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution.<br><br>1. Recent data outside the data collection period for the 2002 assessment shows high levels of PAHs and high nitrates in Days Creek. Investigation is recommended into these problems.<br><br>2. Fish kill information was not included on the fact sheet for Sulphur/South Sulphur, segment 0303. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants.<br><br>1. A Special Study was conducted by the TNRCC in 1994 to determine sediment toxicity in Days Creek. Levels of PAHs are considered legacy and do not require further sampling at this time. Staff were unable to assess nutrients due insufficient data for the 5-year period of the current assessment. However, sampling is scheduled to provide more data for the next assessment in FY 2004.<br><br>2. Fish kill information was not included on the fact sheets unless it directly pertained to the creek which was assessed. In the fish kill report sent by TPWD, there was one fish kill reported in the 0303 watershed. However, the location says the kill was on "Kennedy Creek - One mile south of TX 11 @ C.R. 300 in Martin Springs community." |
| 36 | The criteria for toxic metals used to assess off-segment water bodies were calculated using average hardness values from the nearest downstream classified segment; and indicated that there may be available hardness samples to develop an average for many of the assessed off-segment water bodies. | TNRCC staff calculated site-specific hardness for all off-segment water bodies where there were enough metals samples to assess use support (10 or more samples). Of the 13 off-segment waters assessed, there was no change in use support status for 9; three (Paper Mill Creek, Linnville Bayou, and Praire Creek) support the criteria calculated from water body specific hardness; and one (Black Cypress Bayou) does not support the water body specific criteria. |
| 37 | Received CRP contract deliverable Exhibit 5B. The document provided supporting information for 305(b) assessment regarding conditions such as flow status and possible sources and causes of pollution. | TNRCC staff will review comments regarding existing conditions, flow, and possible sources of contaminants. |