

Public Comment on the 2002 Draft 2002 Water Quality Inventory and 303(d) List

Texas Commission on Environmental Quality (TCEQ)
October, 2002

These comments were addressing the Commission's Draft 2002 Water Quality Inventory and 303(d) List and were submitted during a 30-day comment period beginning June 13 and ending July 13, 2002.

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
01	Segment 1008 (Spring Creek). The new method of subsegmenting water bodies created a second area of impairment for DO not included in the 2000 303(d) List. The original listing included the area from Kuykendal Road to the upper segment boundary and now it extends down to IH-45. Is this correct?	Review of data showed the impairment to be upstream of SH 249. The error came in adjusting the 2000 listing of Segment 1008 for DO with the new methodology. According to the new assessment methods and the data used to assess Segment 1008, the impairment is upstream of SH 249, only. The previous assessment methods assumed that a station represented 25 miles of stream. This has been corrected in the data base.
02	Requested copies of the data that resulted in segment 0831 (Clear Fork Trinity River below Lake Weatherford) being placed on the 303(d) list.	The data were mailed to the requestor.
03	In the description of the Texas Water Quality Assessment and List of Impaired Waters (TWQALIW) there is no definition or discussion of Total Maximum Daily Loads (TMDLs) and how or when these water quality management activities will improve water quality. How was the information on possible sources of pollution developed for the report and how accurate is this information.	The TCEQ website has several pages devoted to the TMDL program, including descriptions of ongoing and completed projects in Texas. The final draft of the TWQALIW will make this general information on TMDLs more accessible and provide a statewide schedule for TMDL activities. Information on possible sources of pollution for each water body with concerns or impairments was developed by agency staff from information on activities in the watershed including permitted discharges, information on land uses such as urban, industrial, rangeland, and row-crop agriculture, investigations by regional field staff, and special studies conducted by local monitoring entities. Accuracy varies and reported sources for many water bodies are identified only as unknown point and nonpoint sources.
04	Requested the minerals, bacteria, and nutrient data used for the assessment of the segment 1227 (Nolan River).	The data were faxed to the requestor.
05	Segment 2438 (The Bayport Channel) and segment 2421 (Galveston Bay) are listed as not supporting the fish consumption use and should receive a high ranking instead of medium due to a high density of commercial and recreational fishing, shrimping and crabbing in the area.	According to the <i>Methodology for Developing the Texas List of Impaired Water Bodies</i> (August 1, 2001), a water body listed as not supporting the fish consumption use due to a Texas Department of Health (TDH) aquatic life closure or no-consumption advisory for non-legacy pollutants

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
		(example: selenium, dioxin) should be given a high priority. The advisory, which covers the Houston Ship Channel and adjacent tributaries, recommends that adults limit consumption of catfish and blue crabs to not more than one eight-ounce meal per month. It also recommends that pregnant women, those who might become pregnant, infants and children not consume catfish and blue crab from the advisory area. The Bayport Channel and other water bodies included in the TDH advisory AD-3 will be changed from a medium to high priority for TMDL development. A TMDL project for dioxin is currently underway for the affected area.
06	1. The format of the report is readable and easy to follow. However, it is probably overwhelming for the general public. 2. There is concern about the number of Houston area bayous with impairments for bacteria classified as category 4e. There is a tremendous amount of data available on these bayous. These should be classified as category 5. 3. Segment 1017 (White Oak Bayou) is ranked low for bacteria. Rankings for bayous with high bacteria levels should be medium.	1. The TCEQ will continue to improve the reporting format with the goal of making the website user friendly and more accessible to the general public. 2. Water bodies with bacteria impairments were identified in Category 5 when the geometric mean for fecal coliform is greater than 2,000. The Houston area water bodies classified as 5c have means less than 2,000. The TCEQ takes a watershed approach to developing water quality restoration plans and it is appropriate to begin a TMDL project in connected water bodies that do not support the criteria but have a large amount of existing data and information that can be used to scope and initiate a project. As a result of this comment and public concern, water bodies with these conditions have now been identified as Category 5a. 3. According to the <i>Methodology for Developing the Texas List of Impaired Water Bodies</i> (August 1, 2001), water bodies with TMDLs underway are given a low priority since there is an ongoing effort to correct the problem.
07	Segment 2438 (The Bayport Channel) and segment 2421 (Galveston Bay) are listed as not supporting the fish consumption use and should receive a high ranking instead of medium due to a high density of commercial and recreational fishing, shrimping and crabbing in the area.	See response to Comment Number 05.
08	<u>COMMENT 1: Navigation and Industrial Water Supply Uses</u> Patrick Bayou should only be assessed for navigational and industrial water supply (N/IS) because those are the only uses specified for the Houston Ship Channel Tidal Segment 1006 (which contains Patrick Bayou). In the absence of contrary evidence, the Texas Water Quality Inventory and 303(d) List should indicate these	<u>RESPONSE 1</u> The Commission does not have an approved methodology for the assessment of N/IS and therefore, such an assessment cannot be conducted.

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	uses are fully supported. <u>COMMENT 2: Aquatic Life Use–Sediment Toxicity</u> <u>Comment (a): Aquatic Life Use</u> Patrick Bayou is specifically designated in the Texas Surface Water Quality Standards (TSWQS), as part of Houston Ship Channel Tidal Segment Number 1006, only for N/IS uses and is not designated for aquatic life use (ALU). Therefore, Patrick Bayou should not be assessed for support of ALU in the Texas Water Quality Inventory and 303(d) List. The general criteria in Section 307.4 do not apply to Patrick Bayou because, according to Section 307.4(a), they are superceded by site-specific water quality standards for classified segments. Additionally, while numerical acute toxic criteria, WET requirements, chronic numerical toxic criteria, and chronic total toxicity requirements all apply to Patrick Bayou, this does not mean that ALU is designated for Patrick Bayou and that ALU should be assessed.	<u>Response (a)</u> The TSWQS provide for the assessment of Patrick Bayou for support of ALU. While Appendix A of the Chapter 307 TSWQS does not designate an ALU for Segment Number 1006 (which includes Patrick Bayou), the TSWQS include provisions to protect aquatic life in Patrick Bayou. For example, 30 TAC Section 307.3(a)(50) provides that: Some aquatic life is expected to be present even in water bodies which are not designated for specific categories of aquatic life use. Some provisions to protect aquatic life applies (sic) to any water body in the state whether an aquatic life use is assigned or not. These provisions include the general criteria in Section 307.4 of this title (relating to General Criteria), the numerical acute aquatic life criteria in Section 307.6(c) of this title, and the whole effluent toxicity requirements to preclude acute toxicity to aquatic life in Section 307.6(e) of this title. Because such provisions apply to any water body in the state whether an ALU is assigned or not, it is appropriate to assess Patrick Bayou for support of ALU. Additionally, because Section 307.4 applies whether or not an ALU is assigned and because a specific ALU can only be assigned through a site-specific designation, the TSWQS anticipate that the general criteria in Section 307.4 apply to a segment without a designated ALU, such as Patrick Bayou. Additionally, the general criteria in Section 307.4, that are made applicable to Patrick Bayou by Section 307.3(a)(50), are not superceded by the site-specific criteria for Segment Number 1006 because such general criteria are only superceded where site-specific criteria are of the same form. Establishment of certain forms of site-specific criteria is not meant to negate the applicability of other forms of general criteria. No site-specific ALU is assigned in Appendix A to segment 1006 and, therefore, the general criteria regarding ALU in Section 307.4 apply. Finally, the assessment of Patrick Bayou for support of ALU is consistent with the policy of the State and the purpose of Chapter 307 to “maintain the

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	<u>Comment (b): No Sediment Toxicity Criteria Apply</u> According to Section 307.6(c)(1) Table 1, numerical acute and chronic life criteria apply only to the water column and not to the sediment; the WET requirements, in Section 307.6(e) and Section 307.3(a)(64), that prohibit both acute and chronic toxicity apply only to effluent and not to sediment. The general criterion in Section 307.4(b)(2) that requires surface waters to be “essentially free of...sediment layers which adversely affect benthic biota or any lawful uses” is an aesthetic parameter which only applies to excess sedimentation, not sediment toxicity. Additionally, no numeric sediment toxicity measurement methods are included in the water quality standards. <u>Comment (c): No Adopted Sediment Toxicity Criteria</u> Requiring water to meet a particular sediment toxicity level based on narrative criteria violates Texas Water Code Section 26.023 that requires the Commission to set water quality standards by rule. No sediment toxicity criteria have been set by rule and thus, the use of narrative criteria is contrary to Texas law and the TCEQ 305(b) Methodology which also states that criteria must be adopted in the TSWQS. The TCEQ 305(b) Methodology also states that narrative criteria are applied only to the assessment of unclassified waters. Furthermore, sediment screening values are not promulgated water quality standards which according to the TCEQ 305(b) Methodology should only be used for developing a concerns list. Also, the scientific basis for the use of such screening levels is in question. Therefore, sediment screening values are not appropriate to identify waters as not supporting designated uses	quality of water in the state consistent with...propagation and protection of terrestrial and aquatic life...” Such assessment is also consistent with Appendix A of Chapter 307 which states that “chronic numerical toxic criteria and chronic total toxicity requirements apply to Segments 1006 and 1007.” <u>Response (b)</u> As stated in Response 2(a), the TSWQS provide for the application of toxicity criteria to sediments to evaluate ALU and TCEQ has applied them in accordance with the TSWQS and TCEQ guidance documents. Regarding numerical acute and chronic life criteria, Section 307.6(c)(1) Table 1 does not exclude sediments. Rather, Section 307.6(c)(1) establishes numerical criteria for toxic substances which “have the potential for exerting adverse impacts on water in the state.” Likewise, neither Section 307.6(e) nor Section 307.3(a)(64) states that sediments are excluded from WET requirements. Additionally, Section 307.4(b)(2) is not limited to excess sedimentation. Rather, Section 307.4(b)(2) states that surface water shall be essentially free of “sediment layers which adversely affect benthic biota or any lawful uses.” For Patrick Bayou, the assessment showed that sediment toxicity is adversely affecting aquatic life, including benthic biota. Numeric sediment toxicity measurement methods are not necessary because there are narrative toxicity criteria in the TSWQS. <u>Response (c)</u> The use of narrative toxicity criteria to assess Patrick Bayou is appropriate as consistent with TCEQ regulations and guidance. Regarding the requirement that water quality criteria must be set by rule, the narrative criteria are the rules adopted in the TSWQS. Regarding the 305(b) Methodology, the cited provision states that the general criteria (of which narrative criteria are one form) in the TSWQS should be applied to assessment of classified and unclassified waters. It does not state that narrative criteria are applied only to the assessment of unclassified waters. Regarding sediment screening values, the screening values were not used to establish nonattainment of TSWQS. Rather, ambient toxicity tests established that the sediments are toxic to aquatic life. Finally, Section 307.4(d) states that “criteria to protect aquatic life from chronic toxicity apply to surface waters with a significant aquatic life use of

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	on the Texas Water Quality Inventory and 303(d) List. Finally, chronic sediment toxicity criteria are only appropriate to protect significant ALU, which has not been designated for support in Patrick Bayou. According to Section 307.4(d) and Section 307.4(l), water quality standards only allow the application of chronic toxicity to unclassified waters with no ALU designations. <u>Comment (d): No Adopted Translators</u> Three court decisions have held that narrative criteria, such as those found in the TSWQS, cannot serve as a basis for listing if an objective translation method has not been established using appropriate rulemaking procedures. <i>Monongahela Power Company v. West Virginia DEP</i>; <i>Western Carolina Regional Sewer Authority v. South Carolina Department of Health and Environmental Control</i>; and <i>City of Los Angeles, Bureau of Sanitation v. State Water Resources Control Board</i>. The reasoning in the these cases prohibits the Commission from listing Patrick Bayou on the Texas Water Quality Inventory and 303(d) List as impaired based solely upon an exceedance of a narrative standard unless an objective numerical translator has been adopted through the proper rulemaking procedures. <u>Comment (e): All Applicable Aquatic Life-Related Criteria Met</u> Although Patrick Bayou is not designated for ALU, the Texas Water Quality Inventory and 303(d) List indicates that Patrick Bayou is fully supporting for all acute and chronic toxicity criteria applicable to this water. The data show no reason to believe that ALU would not be supported, regardless of existing sediment contamination. As an alternative to being listed in Category 4(e) for sediment toxicity, Patrick Bayou should be placed in Category 4(c). <u>COMMENT 3: Aquatic Life Use–Metals and Organics in Sediment</u> The Texas Water Quality Inventory and 303(d) List should not indicate that Patrick Bayou is not supporting the ALU because of metals and organics in sediment for several reasons. First, as stated in Comment 2(a), because Patrick Bayou has no designated ALU, the evaluation of that use is	limited, intermediate, high, or exceptional as designated in Section 307.10 of this title (relating to Appendices A - E) <u>or as determined on a case-by-case basis...</u>” (emphasis added). As indicated in Response 2(a), the Commission has already determined, in Appendix A of Chapter 307, that “chronic numerical toxic criteria and chronic total toxicity requirements apply to Segments 1006 and 1007.” <u>Response (d)</u> Neither Texas law nor federal law requires that a numeric translator must be adopted through rulemaking before a water body can be placed on the 303(d) list. As stated in Response 2(c), it is the narrative criteria that are the rules adopted in the TSWQS. Furthermore, the cases cited in the comment do not support the assertion made in the comment. In the <i>City of Los Angeles</i> opinion, the court did not hold that a translator must be adopted by rule. The <i>West Virginia DEP</i> decision was reversed by the West Virginia Supreme Court of Appeals. Finally, the administrative law judge’s opinion in <i>South Carolina Department of Health and Environmental Control</i> was reversed in part by the agency and in any event did not apply to sediment toxicity. <u>Response (e)</u> The combination of a poor benthic community, high numbers and concentrations of toxic materials in the sediment, and ambient sediment toxicity tests indicate that the sediments of Patrick Bayou are toxic. Additionally, EPA has determined that the sediments in Patrick Bayou are so toxic that it has proposed the bayou for listing as a superfund site on the National Priorities List. Section 307.4(d) requires that surface waters “not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with skin, or to terrestrial or aquatic life.” Category 4(c) is inappropriate because TCEQ has not determined that nonattainment is not caused by a pollutant. <u>RESPONSE 3</u> The high levels of organics and metals reported for Patrick Bayou sediment will continue to be described as concerns on the 2002 305(b) assessment. However, the Commission has revised the 2002 303(d) list to include Patrick Bayou for sediment toxicity but not to identify metals and organics as the cause of sediment toxicity. Please

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	inappropriate. Second, sediment contaminant testing is inconsistent with the 305(b) Methodology, which only provides for the use of sediment toxicity testing to evaluate the ALU. Third, no criteria addressing metals or organics in sediment have been properly adopted by rule as required. Fourth, sediment contaminant levels have not been established as a translator for interpreting any narrative criteria. Finally, because sediment screening levels have not been adopted in the state water quality standards and because the 305(b) Methodology limits the application of such screening levels to identification of concerns, the screening levels should not be used to make non-support determinations. Patrick Bayou should not be placed in Category 4(e) for metals and organics in sediment. <u>COMMENT 4: General Use-Thermal Modifications</u> 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 CWA and supporting regulations. Federal law does not require the Commission to make assessment and impairment determinations based upon a state numeric standard. 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. Therefore, the Commission must not list Patrick Bayou as impaired for thermal modifications. <u>COMMENT 5: Fish Consumption Use</u> The Texas Water Quality Inventory and 303(d) List should not indicate that Patrick Bayou is not meeting the Fish Consumption Use (FCU). Patrick Bayou meets all fish consumption-related criteria that are applicable under the water quality standards. The Texas Water Quality Inventory and 303(d) List does not indicate that Patrick Bayou is not supporting for any established human health water quality standards, including those for PCBs, dioxin, and pesticides. The preamble to the TSWQS also indicates that “all toxic substances contributing to fishing advisories or bans were addressed by the proposed numerical criteria for human health.” Additionally, the Texas Department of Health (TDH) fish advisory is not an appropriate basis for a non-support determination for several reasons,	also refer to Response 2. <u>RESPONSE 4</u> The original basis for listing this water body for temperature was nonattainment of the numeric criterion caused by a thermal discharge. Patrick Bayou was originally proposed in Category 5(c) based on nonattainment of numeric water quality standards according to Sections 303(d)(1)(A) and (B) of the Clean Water Act. The Commission has removed Patrick Bayou from the 303(d) list for temperature and will undertake a more detailed analysis of the appropriate standard(s) to be used. <u>RESPONSE 5</u> The Commission appropriately determined that Patrick Bayou does not meet the FCU due to PCBs in fish tissue, dioxin in catfish and crab tissue, and pesticides in fish tissue. The numeric criteria set in the TSWQS are designed to protect the FCU from bioaccumulation of toxic substances from the water. However, Section 307.4(d) of the TSWQS also provides that “surface waters will not be toxic to man from...consumption of aquatic organisms...” The TCEQ 305(b) Assessment Guidance allows the use of TDH fish advisories to determine the level of support for the FCU. The commentor states that water quality criteria must be set by rule. The narrative criteria have been adopted as rules in the TSWQS. Regarding representative samples, the water body that TDH collected samples in, and which the fish advisory applies to, is the broad contiguous area of

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	notwithstanding that the 305(b) Methodology states that a TDH no-consumption advisory indicates non-support. First, a fish advisory applies a water quality criterion that is not supported by the state water quality standards and has not been adopted by rule, as required by Texas law. Second, the data the fish advisories are based on are not representative of Patrick Bayou because the fish and crab samples were collected by TDH outside of Segment 1006. The 305(b) Methodology allows evaluation of fish advisories only “in water bodies where the TDH has collected tissue data.” Federal guidance also directs states not to list water bodies as impaired where, as here, fish tissue data are not representative of the water body in question. Third, the advisory is based on more protective risk assessment parameters than those specified in the TSWQS. The advisory was also based on adding the risk parameters for pesticides and PCBs, which is not scientifically justified and, therefore, no advisory should have been issued. Therefore, the Commission must not list Patrick Bayou as impaired for PCBs in fish tissue, dioxin in catfish and crab tissue, and pesticides in fish tissue. <u>COMMENT 6: Sediment Contaminant Concerns-Barium</u> 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. <u>COMMENT 7: 303(d) Listing Issues</u> 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.	the Houston Ship Channel which includes Patrick Bayou. The TDH fish advisory covers this broad contiguous area to account for the transient nature of fish and other aquatic life. Regarding the TDH risk assessment, even if the advisory is based on more protective risk assessment parameters, the October 24, 2000 EPA guidance on fish advisories provides that “it is reasonable for a State...to include any other water having a fish or shellfish consumption advisory...as impaired on its section 303(d) list if the State...believes it is appropriate.” In this case, the Commission has determined that it is appropriate to rely on the TDH fish consumption advisory as evidence of FCU nonattainment. <u>RESPONSE 6</u> Sources for contaminants of concern are identified in the 2002 305(b) assessment. The Commission has added the natural source for barium to the list of potential sources for barium. However, the Commission has not determined that the source of barium in Patrick Bayou sediment is solely groundwater. Therefore, it is included in the 2002 305(b) assessment. <u>RESPONSE 7</u> The proposed Category 5 has been re-designated as Category 5(a). The Commission has also transferred water bodies that were originally proposed in Categories 4(d) and (e) to Categories 5(b) and (c), respectively. The Commission has determined that it is appropriate to place Patrick Bayou in Category 5(c) for chronic toxicity in sediment and in Category 5(a) for PCBs in fish tissue, dioxin in catfish and crab tissue, and pesticides in fish tissue. The overall category of Category 2 is inappropriate for Patrick Bayou because some of the uses and criteria are not supported. The overall category of Category 4(c) is inappropriate for Patrick Bayou because there is evidence that pollutants are probable causes of nonattainment of TSWQS.
09	Segment 2438 (The Bayport Channel) and segment	See response to Comment Number 05.

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	2421 (Galveston Bay) are listed as not supporting the fish consumption use and should receive a high ranking instead of medium due to a high density of commercial and recreational fishing, shrimping and crabbing in the area.	
10	Segment 2438 (The Bayport Channel) and segment 2421 (Galveston Bay) are listed as not supporting the fish consumption use and should receive a high ranking instead of medium due to a high density of commercial and recreational fishing, shrimping and crabbing in the area.	See response to Comment Number 05.
11	1. Segment 0803 (Lake Livingston). Dissolved oxygen data for station 14006 reflect no concern (zero exceedances; nine measurements). However, the fact sheet indicates concern with limited data set (two exceedances; nine measurements). 2. Segment 0805 (Upper Trinity River). TCEQ reported 2 dissolved oxygen exceedances out of 11 measurements at station 10937 (sub-segment 04), and identified a tier 2 primary concern. Commentor pointed out that the “exceedances” (3.89 and 4.39 mg/L) occurred on days when a 3.5 mg/L criterion was in effect, rather than a 5.0 mg/L criterion (criterion is dependent on headwater flow), meaning that there actually were no exceedances. 3. Segment 0809 (Eagle Mountain Reservoir). Requested that an additional data point for total phosphorus, which wasn’t available for the initial screening, be incorporated, and sub-segment 12 reassessed. 4. Segment 0809 (Eagle Mountain Reservoir). Requested that an additional data point for chlorophyll a, which wasn’t available for the initial screening, be incorporated, and sub-segment 12 reassessed. 5. Segment 0821 (Lake Lavon). TCEQ reported that dissolved oxygen data aggregated for stations 15684 and 15685 (sub-segment 01) showed 24 samples and 3 exceedances, and on that basis identified a tier 2 primary concern. The commentor contends that there were only 2 exceedances (4.0 and 4.1 mg/L), with the next lowest value being 5.2 mg/L (not an exceedance of the 5.0 mg/L criterion), and that exceedance by 2 of 24 samples is consistent with a “no concern” designation. 6. Segment 0824 (Elm Fork Trinity River above Ray Roberts Lake). Only 7 chlorophyll a samples were available for sub-segment 04 for the period of record, and TCEQ categorized it as “not assessed”. However, all 7 values exceeded the screening	1. The data sheet is correct; the fact sheet is incorrect. The error will be corrected in the final version of the fact sheet. 2. A reevaluation of data for station 10937 revealed that the commentor was correct. Therefore, there were zero exceedances out of 11 measurements, and the designation for sub-segment 04 was changed to “no concern”. 3. The data point was incorporated, and the reassessment showed that 5 of 10 samples exceeded the screening criterion. Thus, a concern for total phosphorus was identified for the sub-segment. 4. The data point was incorporated, and the reassessment showed that 6 of 10 samples exceeded the screening criterion. Thus, a concern for chlorophyll a was identified for the sub-segment. 5. A reevaluation of the data showed that the commentor was evaluating only surface measurements. Dissolved oxygen in reservoirs is evaluated using the mean concentration of multiple measurements from the mixed surface layer. Three of the means were less than 5.0 mg/L (3.77, 4.57, and 3.90 mg/L). Three exceedances out of 24 measurements is consistent with a tier 2 primary concern designation; therefore, the original assessment was correct. 6. The data in question were reevaluated, and we are in agreement with the commentor that a potential problem exists for excessive chlorophyll a in the sub-segment. Accordingly, the final version of the assessment will recognize this situation as a

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	criterion, and the mean was excessively elevated. On that basis the commentor recommended that the sub-segment be recategorized as a “concern”. 7. Segment 0824 (Elm Fork Trinity River above Ray Roberts Lake). TCEQ identified a tier 1 primary concern for sub-segment 04, based on the assertion that 2 of 5 dissolved oxygen values exceeded the minimum criterion. However, the data show that there were no values below the minimum criterion of 3.0 mg/L. Therefore, the situation should be recategorized as “no concern”. 8. Segment 0826 (Grapevine Lake). For station 16112 (sub-segment 06), TCEQ reported that for pH there were 4 values and 2 exceedances. A review of TRACS data showed that there were 7 values and 1 exceedance. 9. Segment 0840A (unnamed tributary of Jordan Creek). TCEQ reported that for ammonia nitrogen there were 16 values and 5 exceedances. A review of TRACS data showed that there were 16 values and 7 exceedances.	narrative concern. 7. A reevaluation of the data revealed that the commentor was correct in his assertion. The problem resulted from a transcription error on the worksheet in the original assessment. Appropriate changes were made for the sub-segment. 8. A reevaluation of the data in TRACS showed that the commentor was correct (7 pH values, 1 exceedance). The discrepancy resulted from errors in the data printout used in the original assessment. Appropriate changes were made to assessment data sheets. The situation, however, remains a Tier 1 primary concern. 9. A reevaluation of the data revealed that the commentor was correct in his assertion. The discrepancy resulted from an error in the original assessment. The assessment was updated to correct the error. The original conclusion that there is a concern remains the same.
12	1. The assessment category system and how it will be used have not been adequately explained in previous guidance. The new categories will lead to de-listing water bodies without stakeholder input. Successive changes in 303(d) listing methodology has obscured segment rankings and prevented tracking of TMDL prioritization. 2. It is not clear if the Assessment Category 4c assigned to segment 1403 (Lake Austin) will remove the segment from the list of water bodies requiring a TMDL. 3. While we concur with the assignment of Category 4e to segment 1403A (Bull Creek), we recommend a low priority for further TCEQ action due to the generally higher quality aquatic life and water chemistry than other area segments that are impaired. 4. We are concerned that the Assessment	1. The EPA has directed states, through new guidance, to provide assessment results using the new five category system. The TCEQ has complied with this directive. The assessment and determination of use attainment is consistent with current TCEQ guidance that was developed with stakeholder input. De-listing of water bodies is consistent with EPA guidance. A thorough description of the categories and ranking for TMDL action is now provided on the agency website. 2. Assessment units are listed in Category 4c if the impairment is not caused by a pollutant and cannot be addressed with a TMDL, i.e., a pollutant load allocation. The cause of the depressed DO is the release of anoxic water from an upstream dam. Monitoring will continue to confirm that the impairment is not pollutant-caused and to support water quality management actions necessary to address the cause(s) of the impairment. 3. For assessment units listed in Category 4e (now 5c), routine monitoring should continue, as well as, parameter or area-specific studies scheduled to determine if a TMDL is required. 4. On-going TMDL funded projects for Category

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	Category 4e will halt an ongoing TMDL for segment 1427 (Onion Creek). 5. The list of water quality concerns does not reflect the elevated pesticides found in the sediment of segment 1429 (Town Lake). We feel that impairments would be indicated if stations were considered separately. 6. Available data submitted by Commentor were not used in the assessment. 7. Storm water data should be included in data set to represent ambient wet weather conditions. 8. The Assessment is not reproducible from the data provided by TCEQ due to undocumented screening processes, including storm water data removal and 7Q2 determinations for unclassified streams. Data screened from the Assessment should be included in a list of available data with explanations for its removal. 9. Segment 1427 (Onion Creek) is noted as “Not assessed” due to the absence of 24-hour DO data. Our understanding is that a TMDL contractor would provide this data. Improved communication between the TMDL team, TMDL consultants, and CRP partners may prevent such data omissions. 10. The source for the Contact Recreation impairment and nutrient concerns for segment 1428C (Gilliland Creek) should reflect the presence of two WWTP discharging directly into the water body. 11. Concerns for ammonia nitrogen and fecal coliform may be assessed if the full data set available for segment 1428J (Harris Branch) is assessed. 12. TCEQ has indicated the need for ambient sediment toxicity data to assess Aquatic Life Use for segment 1430 (Barton Creek). The Commentor	4e (now5c) will continue and data generated will be used to determine if an allocation of loads (a TMDL) is the best water quality management approach. 5. As per the Guidance, data from stations within a hydrologically related area with similar water quality conditions may be aggregated to meet the 10 sample minimum requirement. In this case, all available data from the most recent 5 year period (March 1, 19986 - February 28 2001) have been considered for the Assessment. 6. Information submitted by the Commentor has been considered for the assessment. And with this additional data, numerous new water bodies are now assessed. 7. As stated in the Guidance, the Assessment must use a sample set that is spatially and temporally representative of conditions of the water body. The sample set must not be biased toward unusual conditions, such as flow, runoff, or seasonality. Wet weather conditions are represented in the data set with corresponding routine data when available in a way that does not over represent the storm water data. 8. The TCEQ will work in the future to develop a progressively more complete presentation of assessment results and the field and laboratory measurements that support them. 9. The assessment project for segment 1427 is ongoing. Participation of all the local stakeholders in monitoring is encouraged. 10. The source will be changed in the assessment information. 11. All available data from the most recent 5 year period (March 1, 19986- February 28 2001) have been considered for the Assessment. 12. The phototoxicity of sediment is not currently included in the 305(b) assessment process. Changes in the assessment of sediment toxicity will

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	would like to submit additional sediment phototoxicity data. 13. Criteria should be developed to determine impairments due to aquatic plant coverage of a water body.	be discussed by a stakeholder workgroup, developing guidance for the 2004 assessment. 13. Aquatic vegetation will be identified as a concern for Segment 1403. Changes in the narrative criteria assessment which consider concerns due to aquatic plant coverage of a water body will be discussed by a stakeholder workgroup, developing guidance for the 2004 assessment.
13	Segment 2438 (The Bayport Channel) and Segment 2421 (Galveston Bay) are listed as not supporting the fish consumption use and should receive a high ranking instead of medium due to a high density of commercial and recreational fishing, shrimping and crabbing in the area.	See response to comment 05.
14	Segment 2438 (The Bayport Channel) and segment 2421 (Galveston Bay) are listed as not supporting the fish consumption use and should receive a high ranking instead of medium due to a high density of commercial and recreational fishing, shrimping and crabbing in the area.	See response to Comment Number 05.
15	Segment 401 (Caddo Lake) ranking for TMDL development for mercury in fish tissue should be high due to the importance of the fishery and to protect human health. Studies are provided as supplemental information. All Caddo Lake impairments should be listed in category 5 rather than 4e and as high priority for a comprehensive TMDL that includes all impairments in 4e and 5. Impairments should be retained from previous years unless they have been resolved. Category 4 listings should be included in Category 5 instead because they are impaired. The TCEQ should promote the inclusion of studies of other species such as birds and various prey species in their assessment of Caddo Lake. We recommend that the TDH include risks to human populations who consume wildlife that may bioaccumulate mercury.	The TMDL rank has been changed to High for the Caddo Lake mercury in tissue impairment as a result of public comment. Segments were assessed using the most recent 5 years of data and new guidance. When data showed no impairments using the new assessment guidance, water bodies were identified as supporting the standards. Impaired segments with insufficient data to re-assess remained with an impaired status. Water bodies that are not meeting standards and for which existing controls are not adequate to implement water quality standards are listed in Category 5. The TCEQ will consider screening levels for the protection of predator species in a stakeholder workgroup to develop guidance for the 2004 assessment.
16	General Comments: The TCEQ should move all water bodies in categories 4d and 4e into category 5 in order to avoid ambiguity in applying restrictions to	TCEQ staff have developed Categories 5b and 5c and have removed Categories 4d and 4e. The categories which constitute the 303(d) list are as

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	increased loadings that may contribute to violations of the water quality standards. Applicable standards should be listed in the assessment information provided in order to increase public understanding and facilitate commenting. There is not sufficient notification to stakeholders of dates that reports will be submitted for Commission approval. The binomial method for assessment that the TCEQ has adopted has resulted in reduced protection of the state's water bodies. While reducing the risk of false listing, the method has increased the risk of failing to list impaired streams. The TCEQ must retain the 2002 listings until an appropriate delisting strategy has been formally adopted and properly applied. TCEQ should require 24-hour continuous monitoring for future listings but should use current grab samples to list water bodies for dissolved oxygen (for the Draft 2002 303(d) List). The state must list segments as impaired if they are in violation of the narrative criteria (standards). Further, the state should revise the assessment methodology to provide narrative criteria for	follows: 5a. A TMDL is underway, scheduled, or will be scheduled. 5b. A review of the water quality standards will be conducted before a TMDL is scheduled. 5c. Additional data and information will be collected before a TMDL is scheduled. Staff will continue to improve the presentation of assessment materials to augment public understanding and readability. Staff are currently exploring ways to keep the public and stakeholders, who have previously participated in developing the assessment with data submittal and comments, informed about the public comment periods and dates that the Commission will consider the reports. The statistical approach was adopted to provide a known level of confidence in use attainment status. TCEQ acknowledges the potential for not listing an impaired water body and has discussed those probabilities in the Guidance. The probabilities and resultant listing actions will be discussed by stakeholders in the development of guidance for the 2004 assessment. The use of the binomial method has also provided a way to identify water bodies that are near nonattainment and direct monitoring resources to better evaluate their water quality problems. The TCEQ has used the assessment methods in the 2002 Guidance to determine use support when adequate recent data are available. Water bodies were delisted when these data indicate use support or when the original basis of listing was in error. Listings have been retained when the data set is inadequate. Instantaneous grab samples continue to be used for identifying concerns for aquatic life use. Consistent with the current assessment method, grab samples can only be used to determine support of the minimum criteria. Two years of 24-hour type data are required to evaluate the 24-hour criterion. This type sampling has been widely implemented only in the last two years and it was generally unavailable for this assessment (assessment method for 24-hour criterion indicated as Not Assessed). TCEQ has developed and adopted numeric criteria to protect beneficial uses. The narrative criteria are currently evaluated with direct measures of use support such as biological indices of aquatic

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	evaluating narrative criteria support and reflect the application of those criteria in the assessment report. Comments on Specific Water Bodies: 1. Segment 0401 (Caddo Lake). The segment had various metals in sediments exceeding the 85th percentile. However, these were listed only as concerns. This is a deficiency in the state assessment guidance. The pH levels in Hells Half Acre and the lower 5000 acres of the segment were not supported in 2000. The changes in the guidance are not protective because they have resulted in delisting these portions of the water body. Due to the importance of Caddo Lake as a fishery, the TMDL rank should be elevated to High for all impairments. 2. Segment 0507 (Lake Tawakoni) pH delistings, and failure to list portions of the lake for dissolved oxygen are simply a result of changes in assessment methodology since the 2000 assessment. 3. Segment 0511A (Cow Bayou above Tidal) proposed delisting of contact recreation impairment in the lower 5.3 miles is an artifact of changes in screening methodology. 4. Segment 0606 (Neches River above Lake Palestine) fact sheet could not be displayed. 5. Segment 0606A (Prairie Creek) Delisting the aquatic life use impairment due to chronic zinc concentrations has not been justified. 6. Segment 0607 (Pine Island Bayou) delisting for pH is unjustified.	community health, and ambient toxicity tests. TCEQ is developing nutrient criteria to directly evaluate water quality problems related to the excessive growth of aquatic vegetation. 1. The TSWQS currently have no numeric criteria for sediment. The guidance used to prepare the assessment does, however, have a quantitative method for using ambient toxicity tests to determine support of the narrative criteria. At this time, there are no sediment toxicity tests available for this segment to directly assess the narrative criterion. Using the new assessment guidance, pH in Hells Half Acre and the lower 5000 acres now supports the use. However, both portions of the segment have Tier 2 concerns for pH and this will result in continued monitoring. The TMDL rank has been changed to High for the Caddo Lake mercury in tissue impairment as a result of public comment. 2. Evaluation of pH and dissolved oxygen data was consistent with current assessment methodology. Possible needs for methodology refinement will be discussed by stakeholder workgroups developing screening guidance for the 2004 assessment. 3. The assessment showed that 6 of 21 fecal coliform samples exceeded the single sample criterion (400/100 mL). In accordance with current assessment methodology, this exceedance rate is a tier 2 primary concern, rather than a level that would indicate use nonsupport. Possible needs for methodology refinement will be discussed by stakeholder workgroups developing screening guidance for the 2004 assessment. 4. Assistance was provided so that the fact sheet could be displayed by the user. 5. The original listing, made in 2000, was based on an average hardness for the basin, which yielded a zinc criterion of 40.4 mg/L. Recalculation based on site specific hardness produces a more accurate criterion of 57.1 mg/L. The average of 12 samples from the 2000 assessment is 41.7 mg/L; hence, the original listing was made in error. 6. Low pH measurements were responsible for the lower 43 miles to be listed in 2000. pH measurements in all four subsegments met criteria in 2002; hence the delisting. A Tier 2 concern was established for an upper reach (3 of 19 measurements do not attain

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	7. Segment 0608C (Cypress Creek) should remain listed for pathogens. 8. Segment 0608D (Hickory Creek) assessment data could not be viewed or printed. 9. Segment 0610 (Sam Rayburn Reservoir) should be listed as impaired if narrative standards are exceeded, rather than the concerns that are identified. A widespread sediment contamination by arsenic is suggested by the data. No fish tissue data were found for two subsegments (Main Pool and Upper Angelina River Arm) to justify a no concerns status. 10. Segment 0612 (Attoyac Bayou) delisting aquatic life use impairments for chronic cadmium and lead exceedances has no basis. 11. Segment 0615 (Angelina River/Sam Rayburn Reservoir) secondary concerns are identified despite elevated nutrients. Impairment of the narrative criterion for excessive nutrients is justified. 12. Segment 0615A (Papermill Creek) Elevated ammonia and orthophosphorus concentrations result in only identification of secondary concerns. The water body should be listed for narrative color exceedances. 13. Segment 1006 (Houston Ship Channel) For the Patrick Bayou portion of this segment, toxicity and levels of toxic substances in sediments represent a serious problem. All listings related to sediment must be moved to Category 5. 14. Segment 1009 (Cypress Creek) Despite	the criterion) 7. Seven of 26 (27%) exceed fecal coliform criterion. Although a tier 2 is identified, the contact recreation use is maintained; hence, the delisting. 8. Assistance was provided so that the fact sheet could be displayed by the user. 9. Color is identified as a secondary concern, because it has not been shown to contribute to impairment of one of the designated uses at this time. Eight subsegments were evaluated and all had five or fewer samples, so no assessment was possible. However, data indicate elevated levels over a widespread area. Follow up sediment toxicity testing will be scheduled to determine if the sediments are toxic to aquatic life. More than ten fish tissue samples were available for assessment of both indicated subsegments. All but one sample were less than the screening level indicating no concerns. 10. There was an error in the assessment and only the lower 37 miles should have been listed in 2000. The same station (ID 10636) evaluated during both assessments, now indicates full support. 11. Although nutrient concentrations are elevated there is no indication of assimilation or excessive proliferation by aquatic plants. Chlorophyll a concentrations remain low and pH ranges are normal. 12. Although nutrient concentrations are elevated there is no indication of assimilation or excessive proliferation by aquatic plants. Chlorophyll a concentrations remain low and pH ranges are normal. Color is identified as a secondary concern, because it has not been shown to contribute to impairment of one of the designated uses at this time. 13. See response to Comment Number 08. 14. Although nutrient concentrations are elevated

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	compelling evidence of nutrient impairment, only a concern is noted. The water body should be listed as impaired because of noncompliance with the narrative nutrient standard. 15. Segment 1102 (Clear Creek Above Tidal) The characterization of this segment as fully supporting the fish consumption use and the aquatic life use in unjustified. The segment was not assessed for many relevant parameters. 16. Segment 1110 (Oyster Creek Above Tidal) The description of the impaired area as the “portion near Walker Street” is not adequately descriptive to inform the public of the impairment or to allow informed review of compliance with prohibitions of additional discharges into impaired water bodies. 17. Segment 1113 and 1113A (Armand Bayou Tidal and Above Tidal). The sample results do not appear to reflect the full results of 24-hour dissolved oxygen sampling provided to TCEQ in conjunction with early stages of the TMDL process. 18. Segment 1209A (Country Club Lake) No data are presented that justify the delisting of arsenic in water for this segment. Assessment indicates “Not Assessed” for both acute and chronic metals in water. Data do not show an assessment for any criterion in this water body. 19. Segment 1209B (Fin Feather Lake) No data are presented that justify the delisting of arsenic in water for this segment. Assessment indicates “Not Assessed” for both acute and chronic metals in water. Data do not show an assessment for any criterion in this water body. 20. Segment 1209D (County Club Branch) No data are presented that justify the delisting of arsenic in water for this segment. Assessment indicates “Not Assessed” for both acute and chronic metals in water. Data do not show an assessment for any criterion in this water body.	there is no indication of assimilation or excessive proliferation by aquatic plants. Chlorophyll a concentrations remain low, pH ranges are normal, and there are no apparent problems with low DO. 15. The fish consumption use was characterized as fully supporting because the TDH rescinded the fish advisory ADV7 (9/1993) upon release of advisory ADV 21 (10/2001). Improvements in the aquatic life use assessment methods to determine and express the level of confidence for use attainment through multiple types of measurement will be discussed by a stakeholder workgroup developing guidance for the 2004 assessment. 16. The subsegment descriptions have been revised to better define the geographic boundaries. 17. Assessment staff were aware of the 24-hour data collected as part of the TMDL project. Due to technical difficulties associated with the data set, it could not be used during the assessment. However, the data set would not have changed the status of the DO impairment. Numerous projects related to DO continue on Armand Bayou. 18. The segment was originally listed for arsenic in water using an inappropriate standard of 50Fg/L for human health protection. This standard applies to water bodies which are public water supplies. This water body is not a public water supply and therefore should have been evaluated against the freshwater chronic criteria of 190Fg/L. The water body would have been fully supporting using 190Fg/L and therefore should be de-listed. The current assessment shows insufficient recent data to determine whether the water body is meeting is use. 19. See response for comment 18. 20. See response for comment 18.

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	21. Segment 1222 (Proctor Lake) There is no justification for delisting portions of the segment for dissolved oxygen. 22. Segment 1222A (Duncan Creek) The data do not justify delisting 1222A based on dissolved oxygen levels. 23. Segment 1225 (Lake Waco) TCEQ should list 1225 as impaired due to high levels of nutrients and chlorophyll a. TCEQ must list segments for impairment of narrative criteria. There is no basis for reporting ALU as supported based on grab DO samples only. 24. Segment 1226 (North Bosque River). There is no justification for delisting specific portions of the segment for chlorophyll a. 25. Segment 1226B (Green Creek) should be listed as impaired due to high levels of nutrients and chlorophyll a. The TCEQ must list segments for impairment of narrative criteria. 26. Segment 1229 (Paluxy River/North Paluxy River) was assessed as fully supporting the ALU with DO grab data compared to the minimum. There is little or no data for other parameters considered for assessing the ALU. 27. Segment 1233 (Hubbard Creek Reservoir). Segment 1233 was assessed as fully supporting the ALU with DO grab data compared to the minimum. There is little or no data for other parameters considered for assessing the ALU. 28. Segment 1240 (White River Lake) was assessed as fully supporting the ALU with DO grab data compared to the minimum. There is little or no data for other parameters considered for assessing the ALU. 29. Segment 1243 (Salado Creek) was assessed as fully supporting the ALU with DO grab data	21. Segment 1222 was re-assessed in 2001 to more accurately identify the geographic areas with depressed dissolved oxygen. 22. Segment 1222A was listed in error in FY2000. The correct criterion was used to reassess this water body and the standard is attained. 23. Although nutrient concentrations are elevated, there is no documentation of assimilation or excessive proliferation by aquatic plants and dissolved oxygen concentrations are not impacted by nutrient levels. Improvements in the aquatic life use assessment methods to determine and express the level of confidence for use attainment through multiple types of measurement will be discussed by a stakeholder workgroup developing guidance for the 2004 assessment. 24. Segment 1226 was re-assessed in 2001 to more accurately identify the geographic areas with elevated chlorophyll a. 25. Although chlorophyll a and nutrient concentrations are elevated, there is no documentation of assimilation or excessive proliferation by aquatic plants and dissolved oxygen concentrations are not impacted by nutrient levels. 26. Support of the aquatic life use is indicated by attainment of the minimum dissolved oxygen criterion. A stakeholder workgroup, developing guidance for the 2004 assessment, will discuss improvements in the aquatic life use assessment methods to determine and express the level of confidence for use attainment through multiple types of measurement. 27. See response to comment 26. 28. See response to comment 26. 29. See response to comment 26.

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	compared to the minimum. There is little or no data for other parameters considered for assessing the ALU. 30. Segment 1255 (Upper North Bosque River) is assessed as fully supporting the ALU with DO grab data compared to the minimum. There is little or no data for other parameters considered for assessing the ALU. 31. Segment 1255A (Goose Branch) is assessed as fully supporting the ALU with DO grab data compared to the minimum. There is little or no data for other parameters considered for assessing the ALU. 32. Segment 1304A (Linnville Bayou) There is no basis for reporting aquatic life use as fully supported. The only parameter assessed was compliance with the instantaneous minimum level of dissolved oxygen. 33. Segments 1403 (Lake Austin) and 1414 (Pedernales River) are assessed as fully supporting the ALU with DO grab data compared to the minimum. There is little or no data for other parameters considered for assessing the ALU. 34. Segment 1428(Colorado River Below Town Lake) is assessed as fully supporting the ALU using data for the DO grab minimum. Additional biological data, though described as not representative, seem to indicate an impairment. 35. The Summary Assessment report does not support the removal of the Contact Recreation impairment for segments 1427C (Bear Creek), 1428A (Boggy Creek), and 1428B (Walnut Creek). 36. For segment 1430 (Barton Creek) the ALU for the entire segment should not be assessed as fully supporting. This assessment is based primarily on DO grab data compared to the minimum. Assessing metals and organics in sediment as secondary concerns rather than an impairment is a flaw in the methodology. 37. For segment 1430A (Barton Springs) the ALU should not be assessed as fully supporting. This assessment is based primarily on DO grab data compared to the minimum and the grab average. Also, the ALU for segment 1430A is assessed as fully supporting even though a concern has been noted for DO. Assessing metals and organics in sediment as concerns rather than an impairment is	30. See response to comment 26. 31. See response to comment 26. 32. See response to comment 26. 33. See response to comment 26. 34. See response to comment 26. Biological data collected during high flow conditions (during an upstream dam release) is not considered representative due to sampling difficulties. 35. The Contact Recreation Use was erroneously listed as impaired in the 1999 Assessment based on a storm water data collection project. These segments have been de-listed in the 2002 Assessment. 36. See response to comment 26. Data indicate sediment contamination in a limited area, and sediment toxicity testing should be considered. None of the probable effects levels are exceeded for the five metals. 37. DO grab data were assessed as Tier 2 concerns indicating a potential water quality problem. The source of the depressed DO is listed as natural because groundwater, the source, is typically low in dissolved oxygen. Data indicate sediment contamination in a limited area, and sediment toxicity testing should be considered. See also response to comment 26.

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	a flaw in the methodology. 38. Segment 2004 (Aransas River Above Tidal) There is no basis for reporting the aquatic life use as fully supported. The only parameter actually assessed was compliance with instantaneous DO measurements for the lower 25 miles of the segment. Six of 13 grab samples assessed for DO exceeded the standard. Under previous guidance, this would have resulted in a listing as impaired. The majority of segment was not assessed for aquatic life use. 39. Segment 2104 (Nueces River Above Frio River) The entire segment is currently listed for pH. The assessment data indicate that only 25 miles out of 105 were assessed for pH. The delisting for pH, therefore, has not been justified. 40. Segment 2110 (Lower Sabinal River) has 18 out of 26 samples that exceeded the criteria for nitrate and nitrite nitrogen , yet only a concern is noted. The water body should be listed as impaired for noncompliance with the narrative nutrient standard. 41. Segment 2307 (Rio Grande Below Riverside Diversion Dam) There is no basis for reporting the aquatic life use as fully supported. The only parameter actually assessed was compliance with instantaneous DO measurements for less than half the segment. 42. Segment 2424 (West Bay) No data or other information is reported to support the delisting of the impairment for copper in water. 43. Segment 2439 (Lower Galveston Bay) The entire segment is currently listed for exceeding the chronic standard for copper in water (aquatic life protection). Assessment data indicate that only a	38. See response to comment 26. DO grab data were assessed as Tier 2 concerns indicating a potential water quality problem. 39. The original listing was for partial support of the general use criteria for pH on the same 25 miles as is currently being delisted. The current data indicate this 25 mile reach is now fully supporting the pH criteria. As in the last assessment, the remainder of the segment is not assessed. 40. Despite the high nitrate/nitrite nitrogen values, the TCEQ has no evidence (low DO values, high pH values, excessive plant or algal growth, etc.) which would indicate problems caused by nutrients in this segment. A listing for non support of the narrative criteria must involve such evidence, not simply elevated nitrate levels. In addition to the concern noted for nitrate/nitrite nitrogen in this segment, the segment is listed as not supporting the public water supply use for nitrate/nitrite nitrogen criteria exceedances. 41. See response to comment 26. 42. A review of the data showed that there were 17 metals in water samples collected at the Station 13325 (Caranchahua Reef). There were no values greater than the acute criterion (13.5 Fg/L) and the mean for the copper data (1.861 Fg/L) was less than the chronic criterion (3.6 Fg/L). The original impairment and delisting of Segment 2424 for copper in water was based on an eight square mile around Station 13325. The remainder of the segment remains not assessed for metals in water. 43. The original copper in water listing for Segment 2439 was for an eight square mile area around Smith and Eagle Points near Redfish Island only. The remainder of the bay was not assessed

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	small portion of the segment was assessed for compliance. The removal of the impairment for the remainder of the segment has not been justified. 44. Segment 2454 (Cox Bay) There is no basis for reporting the ALU as supported based on grab DO samples only. 45. Segment 2471(Aransas Bay) There is no basis for reporting ALU as supported based on grab DO samples only. General uses should not be reported as supported for the entire bay when only a portion was assessed. 46. Segment 2473 (St. Charles Bay) There is no basis for reporting ALU as supported based on grab DO samples only. 47. Segment 2481(Corpus Christi Bay) There is no basis for reporting ALU as supported based on grab DO samples only.	due to the lack of metals in water data. The removal of the impairment was specifically for this eight square mile area. The rest of the bay still remains not assessed for metals in water. The fully supporting status for the aquatic life use is based on DO measurement (see response to comment 26). 44. See response to comment 26. 45. See response to comment 26. In this particular case all grab DO samples are higher than the minimum criterion. General uses were assessed as supporting for only 16 square miles; the remainder was not assessed. The fact sheet has been corrected to reflect this change. 46. See response to comment 26. In this particular case all grab DO samples exceeded the minimum criterion. 47. See response to comment 26. In this particular case all grab DO samples exceeded the minimum criterion.
17	1. We agree that segment 1013 (Buffalo Bayou Tidal) should remain a Category 5 but question the low priority since a TMDL is underway. 2. We disagree with the classification of segment 1014 (Buffalo Bayou Above Tidal) as a category 4e rather than category 5. How can both segments be listed for bacteria and not be in the same category? TCEQ should take a watershed approach to Buffalo Bayou and include all segments on the bayou in its correction efforts.	1. According to the <i>Methodology for Developing the Texas List of Impaired Water Bodies</i> (August 1, 2001), water bodies with TMDLs underway are given a low priority since there is an ongoing effort to correct the problem. 2. Water bodies with bacteria impairments are now identified in Category 5. These Houston area water bodies have means less than 2,000. The TCEQ takes a watershed approach to developing water quality restoration plans and it is appropriate to begin a TMDL project in connected water bodies that do not support the criteria but have a large amount of existing data and information that can be used to scope and initiate a project. As a result of this comment and public concern, water bodies with these conditions have now been identified as Category 5a and scheduled for a TMDL.
18	Segment 2201 (Arroyo Colorado Tidal) should be delisted for toxicity in sediment based on new data collected during the TCEQ statewide toxicity project. Data indicate that for the time period from April 2001 to April 2002, there were no significant toxicity effects in ten samples. Segment 2304 (Rio Grande Below Amistad Reservoir) should be delisted for toxicity in water based on new data collected during the TCEQ statewide toxicity project. Data indicates that for the time period from March 2000 to February 2002,	TCEQ is reviewing the results of this statewide study and will consider these new data along with previous information on ambient toxicity in these segments to make decisions about scheduling a TMDL.

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	there was only one sublethal effect in nine samples. Segment 2306 (Rio Grande above Amistad Reservoir) should be delisted for toxicity in water based on new data collected during the TCEQ statewide toxicity project. Data collected in segment 2306 indicated periodic marginal sublethal effects to <i>Ceriodaphnia dubia</i>. The analysis suggested that suspended solids may be the cause of the mild effect.	
19	Segment 1209C (Carters Creek) was listed in error. The creek and watershed is used by grazing livestock and this is a natural use of the landscape and therefore standards do not apply. Failure to remove the segment from category 4e would result in hardship to the City because a TMDL would still be required under 4e.	Based on the evidence provided, the assessment information was modified to include "Pasture Grazing" as a source of pollution. There is no evidence that the nonsupport of the fecal coliform criteria is due solely to natural causes and the water body is listed as impaired. Category 4e (now 5c) contains water bodies that require further study to determine if standards review is needed and if a TMDL would be an appropriate water quality action to address the impairment. This work precedes the scheduling of a TMDL.
20	Segment 0824 (Elm Fork Trinity R. above Ray Roberts Lake). 1. TCEQ should acknowledge that whereas contact recreation is not supported in the lower 7.5 miles of the segment, it is fully supported in an intervening reach between the City of Gainesville WWTP discharge and the lower 7.5 miles. 2. TCEQ should increase monitoring efforts in the 3.5-mile reach near SH 51, to allow nutrient enrichment and algal growth concerns to be better understood. Data for that reach were insufficient to allow those parameters to be assessed in 2002.	1. This situation is evident in the assessment, as the lower 7.5 miles (sub-segment 01) are shown to be not supporting, and the 2-mile reach immediately upstream (sub-segment 02), fully supporting. 2. This request will be considered in ongoing coordinated monitoring activities.
21	Segments 0831 (Clear Fork Trinity R. below Lake Weatherford), and 0833 (Clear Fork Trinity R. above Lake Weatherford). 1. In Segment 0831, dissolved oxygen exceedances were confined to the reach upstream from the South Fork Trinity River confluence. The confluence should serve as the dividing point between sub-segments due to hydrological considerations. 2. In segment 0833, 9 of 20 dissolved oxygen grab samples did not meet the 5.0 mg/L criterion, an	1. The segment was re-divided using the South Fork Trinity River confluence as the dividing point. The original dividing point had been set at one-half the distance between monitoring stations. Based on sub-segment redefinition, the upper 6.25 miles, sub-segment 02, is identified as a concern due to depressed dissolved oxygen (formerly the upper 11 miles). The lower 12.75 miles, sub-segment 01, is identified as fully supporting the aquatic life use (formerly the lower 8 miles). 2. Grab sample data compared to the 24-hr. average criterion (5.0 mg/L) are only used to identify water

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	exceedance level that should identify the segment as “not supporting” rather than “partially supporting”. 3. Segment 0833 should be placed in impairment category 5, rather than 4d, to expedite a TMDL to protect the City of Weatherford’s drinking water supply.	quality concerns (not impairments). Grab sample data compared to the minimum criterion (3.0 mg/L) are used to identify impairments. The 2002 assessment showed that 5 of 20 grab samples from station 11062 did not meet the minimum criterion, a proportional level of exceedance which is consistent with a “partially supporting” designation. 3. Placement of Segment 0833 in impairment category 4d (now 5b) is consistent with current listing practice. The segment will remain in category 5b until the use attainability analysis currently underway is completed.
22	Segment 0507A (Cowleech Fork Sabine River) 1. Because of hydrological factors, the confluence of a tributary, Long Branch, should be used as the point to separate sub-segments for assessment purposes. 2. The proposed listings for chronic toxicity and dissolved oxygen in the upper 20 miles should be deleted because that portion of the stream is intermittent rather than perennial. Therefore, chronic toxicity criteria do not apply, and the appropriate dissolved oxygen criterion is 2.0 mg/L rather than 5.0 mg/L. 3. The proposed listing for contact recreation in the lower 10 miles should be deleted, because elevated bacteria levels are a result of natural conditions, and that the data set was biased by a disproportionate number of samples reflective of rainfall events.	1. The confluence of Long Branch was used as the dividing point for the assessment. The upper 20 miles is sub-segment 02, upstream from Long Branch, and the lower 10 miles is sub-segment 01, downstream from Long Branch. 2. The proposed determination for chronic toxicity was deleted in accordance with the fact that the sub-segment is intermittent, and chronic toxicity criteria do not apply. The dissolved oxygen listing is retained because the appropriate criterion, 2.0 mg/L, was used in the assessment. 3. Sources resulting in nonsupport of the contact recreation use, as indicated in the assessment, include unknown nonpoint sources and municipal point sources. The data were collected at quarterly intervals. Texas Surface Water Quality Standards apply over a range of natural flow conditions. Therefore, the data in question are considered appropriate for inclusion in the assessment, and the contact recreation listing is retained.
23	1. Segment 1402A (Cummins Creek) should be removed from Category 4e and identified as Category 4c because the impairment is not caused by a pollutant. Rather, this segment was found not supporting its exceptional ALU because biological data for the assessment were sampled during near record drought conditions. Under current assessment methodology, it is unlikely that the segment will ever attain its designated ALU of exceptional. 2. Segment 1502 (Tres Palacios Creek above Tidal) should be removed from Category 4e and identified as Category 5, with a low priority for a TMDL.	1. The ALU designation will be reviewed for the next revision of the Texas Surface Water Quality Standards. Changes in biological monitoring assessment methods will be discussed by a stakeholder workgroup, developing guidance for the 2004 assessment. Continued biological monitoring is recommended for this segment to document the health of the aquatic communities. The water body will remain in 4e (now 5c). 2. Category 4e (now 5c) water bodies require additional monitoring before a TMDL is scheduled. TCEQ will develop additional information on the source and severity of the impairment.

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	3. Data for sub-segments 1414B (Cypress Creek), 1414C (Live Oak Creek), and 1414D (Miller Creek) were part of a one-time aquatic resource characterization. Because these are not high risk water bodies and do not warrant routine data collection, we do not recommend further data collection. 4. Category 1b should be created to characterize water bodies in which water quality standards are attained, but no assigned use is threatened.	3. All water bodies with enough data to assess at least one use for support or concerns were included in the assessment. The significance of the water body and the priority for monitoring should be considered when monitoring schedules are prepared, and TNRCC will expand the monitoring guidance to address this issue. 4. Refinement of categories for assessed water bodies is ongoing with the EPA and TCEQ.
24	1. Segment 1227 (Nolan Creek), was incorrectly identified as the location of a fish kill. 2. TDS and sulfate were listed as impaired for the 2002 assessment and should not be due to the inclusion of data collected during extreme drought and under the 7Q2. 3. Some fecal coliform data were collected for the Nolan River, during storm events and will result in the listing of the segment. The TCEQ procedures manual states that data should be collected at least 48 hours after a significant rainfall. The data should be removed and the segment should not be listed. Additionally, the number of exceedences was not listed for bacteria.	1. The incorrect reference for the 1997 fish kill has been removed for the Nolan River, Segment 1227. 2. All measured parameters were removed from the assessment for one of the sampling events that was made at a time of extreme conditions. The reassessment indicates that the TDS criterion is supported. However, the segment remains impaired for sulfate. 3. 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 samples to be collected in varying flow conditions. The fecal coliform criteria for the geometric mean is 200 and the water body's geometric mean based on 11 samples is 235. The segment was listed based on the exceedance of the geometric mean, rather than the exceedance of 3 of 11 samples.
25	Segment 2438 (The Bayport Channel) and segment 2421 (Galveston Bay) are listed as not supporting the fish consumption use and should receive a high ranking instead of medium due to a high density of commercial and recreational fishing, shrimping and crabbing in the area.	See response to Comment Number 05.
26	Segment 2438 (The Bayport Channel) and segment 2421 (Galveston Bay) are listed as not supporting the fish consumption use and should receive a high ranking instead of medium due to a high density of commercial and recreational fishing, shrimping and crabbing in the area.	See response to Comment Number 05.
27	Regarding segment 401 (Caddo Lake), the ranking for TMDL development for mercury in fish tissue should be high due to the importance of the fishery and to protect human health. Caddo Lake should be listed as high priority for a comprehensive TMDL that includes all impairments.	The TMDL rank has been changed to High for the Caddo Lake mercury in tissue impairment as a result of public comment.

Comment Number	Summary of Request or Comment	Summary of Action or Explanation
	Dissolved oxygen, pH, nutrients, and metals, are contributing to a decline in overall water quality according to our 5 year trend analysis.	The TCEQ has a specific methodology that must be followed in trend analyses. Five years of data is not sufficient to list water bodies as Threatened. These data will be considered in future assessments of the water body. The data included in this comment were submitted during the 2nd comment period. All data were requested during the initial comment period to allow staff time to review new data. As a result these data will be considered for future assessments.