2006 Water Quality Inventory and 303(d) List - Response to Public Comment (June 27, 2007)

These responses address the comments received during the 30-day public comment period on the Draft 2006 Water Quality Inventory and 303(d) List. The public comment period was March 19, 2007 through April 18, 2007.

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
# 01 Nueces River Authority	4/10	For some water bodies there are adequate E. coli/Enterococcus data, yet fecal coliform is reported as not supporting the criteria.	For Segments 2004A, 2107 and 2108 – E. coli data shows impairment. While it is still also not supporting the fecal coliform, the SM code shows that this was superseded by another method; in this case, E. coli. For segment 2201 – Enterococcus data shows impairment. While it is still also not supporting the fecal coliform, the SM code shows that this was superseded by another method; in this case, Enterococcus. For Segment 2202 – In this case, the fecal coliform data shows a very high level of exceedance above the criterion. There is some question as to whether the E. coli method is responding well in this system and if observed levels accurately reflect a condition of known threat to human health. For these reasons, the basin assessor used professional judgment to keep the water body listed until it can be determined why there is such a wide difference between the two data sets for E. coli and fecal coliform.
		Segment 2107 (Atascosa River) for assessment unit (AU) 2107_02, the impairment for DO, grab minimum, is being carried forward from 2004 even though all of the 13 samples assessed in 2006 met the criteria. Will there be a way to remove it from the list following completion of the TMDL?	Of the 13 24-hour DO samples, two were collected outside the index period, so those samples could not be assessed. Of the remaining 11 samples, nine were collected in the index period and two were collected in the critical period. According to the 2006 Guidance for Assessing and Reporting Surface Water Quality in Texas, only samples from the index period will be assessed and one-half to two-thirds of the samples must be collected during the critical period. Since the data did not meet these requirements, the 24-hour data set was determined to be temporally not representative and was not assessed. Note that if the 11 data points had been assessable for the 24-hour average, seven of the 11 would not have met the 5.0 mg/L criterion, thus keeping the water body listed for dissolved oxygen.

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
		Segment 2113 (Upper Frio River) for AU 2113_01, the impairment for DO, grab minimum, is being carried forward from 2004 even though all of the 58 samples assessed in 2006 met the criteria. The final report of the TMDL recommends removing this impairment.	The dissolved oxygen impairment for this water body will be de-listed. The draft assessment failed to include the complete 24-hour DO dataset. The available data show that the dissolved oxygen criteria are fully supporting. Also of note for this water body is the reassessment of the benthic community samples using the Coefficient of Variation method for evaluating multiple biological samples from the same water body. This method has been agreed upon by the TCEQ and TPWD as an improvement over just averaging index scores and accounts for variability in multiple measurements at the same sites. The benthic community is supporting the aquatic life use and will be removed from the draft list.
		Segments 2114 (Hondo Creek) and 2115 (Seco Creek) the AUs are reversed: _01 should be the farthest downstream, not upstream.	These assessment units will be renumbered in the 2008 assessment. No action will be taken at this time.
		Segment 2117 (Frio River above Choke Canyon Reservoir) for all AUs, the impairment for DO, grab minimum, is being carried forward from 2004 even though all of the 63 samples assessed in 2006 met the criteria. The AUs with adequate data should be removed from the list.	When a water body is previously listed for grab DO, the only way it can be de-listed is with 24-hour DO data. In this case, there were only two 24-hour DO samples collected from AU_02 and only one 24-hour DO sample from AU_01 and AU_03. Ten samples are required to de-list, so the listing is carried forward from 2004.
		Segment 2201 (Arroyo Colorado Tidal) for AU 2201_04, the impairment for DO, grab minimum, is being carried forward from 2004 even though only 2 of the 39 samples assessed in 2006 did not meet the criteria. The Arroyo Colorado Watershed Protection Plan has been adopted, so this impairment should be removed.	When a water body is previously listed for grab DO, the only way it can be de-listed is with 24-hour DO data. In this case, there were only six 24-hour DO samples collected. A minimum of 10 samples is needed for assessment, so the listing is carried forward from 2004.
		Segment 2494A (Port Isabel Fishing Harbor) the impairment for DO, grab minimum, is being carried forward from 2004 even though all of the 25 samples assessed in 2006 met the criteria. It should be removed from the list.	This water body was identified as a carry forward in error. It was not listed previously and the current data support the criteria. It will be removed from the draft.
# 02 Brazos River Authority	4/12	Segment 1208 (Brazos River above Possum Kingdom Lake) is currently listed for copper in water. The laboratory has reviewed the data used to evaluate the copper and found there was interference during the analysis. The data should not be used for assessment of Segment 1208	Segment 1208 was re-assessed with corrected copper results and is found to be fully supporting. TCEQ followed up and confirmed that the corrected data is now in the SWQMIS database. The impairment has been removed from the draft list.

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
		and the listing should be removed.	
# 03 San Antonio River Authority	4/13	Segment 1907 (Upper Leon Creek) was listed for bacteria using data collected below 0.1 cfs. According to TCEQ Guidance, these data should not have been assessed. The bacteria data should be reassessed excluding the low flow events and the listing removed.	A review of flow data indicates that some samples were collected when the flow was less than the 7Q2 assigned in TSWQS for Segment 1907. Bacteria samples collected on these have been removed from the analysis. Once these samples were removed from analysis, number of samples assessed was less than 10. Additional samples (2) were obtained by considering recently (2006) collected samples. As a result of these changes, the water body will not be listed for bacteria.
# 04 National Wildlife Federation	4/17	The Type-2 error rates used in assessment of water quality data remain unacceptably high and impairments can be missed. In particular, the binomial method allows for too frequent exceedances of the criteria and fails to account for the magnitude of these exceedances.	The binomial approach allows us to describe both the probability of incorrectly identifying a water body as impaired and the probability of missing an impairment. The ratio of exceedances to samples that result in listing is driven by the intent to limit the probability of incorrectly listing a water body (Type 1 error), and as a result incurring the expense of a TMDL, to less than 20%. The Type-2 error probability is not directly considered in establishing the ratio of exceedances to samples used to establish use support. At the small sample sizes available for the assessment the Type-2 error is large when a water body is only marginally impaired. Considering the limited data that are generated with available monitoring resources, a considerably higher Type-2 error rate is accepted. TCEQ recognizes the need for an improved statistical method for assessment decisions. The development of a new water quality database, brought on-line recently, will allow the more complex computations required for a method that considers both the frequency (as we do now) and the magnitude of exceedances.
		The delisting methodology is flawed because it allows for greater than the limit of 10% exceedance when delisting a water body.	TCEQ evaluates most recently available data using the binomial method to determine if water bodies are not in compliance with the water quality standards and should be on the new 303(d) list (no more than a rate of 10% noncompliance). Because water bodies that are already listed have been found to be noncompliant in the past, these water bodies are evaluated for relisting in the same way, with the additional requirement that for small datasets there be at least two fewer samples than would be required to list. In addition, water bodies are not delisted if they are considered a concern which is established with a lower accepted rate of exceedance (no

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			more than an exceedance rate of 8% at the same statistical confidence for Type 1 error as for impairment). As a result, the actual rate of exceedance for delisted water bodies is about 9% for toxic substances, 12% for conventionals, and 30% for bacteria. These additional requirements were made to make it less likely that water bodies identified as supporting the criteria in 2006 would be relisted in the next assessment with data sets that differ by only a few exceedances.
		Chronic toxicity assessment is not being applied in a manner consistent with Texas Surface Water Quality Standards (TSWQS) because aquatic life must be protected against conditions of chronic toxicity including seasonally developed communities when present, even in intermittent streams without perennial pools.	In addition to the narrative cited in the comment for Section 307.6 of the TSWQS, the standards provide additional information in 307.4 on how aquatic life uses and toxic criteria are addressed for intermittent streams. Section 307.4(l) does provide for the consideration of attainable seasonal uses. The presence of seasonal streamflow and aquatic organisms does not automatically constitute the seasonal aquatic life use indicated in the definition of "significant aquatic life use." In 307.3(c), "significant aquatic life use" is defined as indicating that a subcategory of aquatic of life use (limited, intermediate, high, or exceptional) is applicable. Some aquatic life is expected to be present even in water bodies which are not designated for specific categories of aquatic life use. The assessment practices are in accord with these provisions and the presumed uses that are established in 307.4 for water bodies with significant aquatic life use, and with TCEQ permitting activities.
		Segment 0401 (Caddo Lake) should not be moved from Category 5c to 4c for dissolved oxygen (D.O.). TCEQ has not provided the data to prove there is no pollutant contribution.	Category 4c is assigned to impairments that are caused by stressors other than specific pollutants that can not be allocated under a TMDL. For 2006 the TCEQ has put some impairments (nonsupport of applicable water quality standards) in this category that are considered characteristic of natural water quality conditions. Category 4c is appropriate for nonsupport of criteria caused by natural conditions where TCEQ does not intend to review or change the standard at this time, such as those on water bodies with a high public interest for protection and where there is a significant risk for less protection if the standard were changed, and for transient conditions of several years duration, for example due to drought or a brine release, that do not warrant

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			a change in the adopted criteria. The portion of the lake assigned Category 4c is a swamp and has a long, historical record of low D.O. caused by very shallow water, low circulation, and many trees providing shelter from wind, all conditions that, especially during summer months, lead to D.O. levels below the criterion. The assignment of Category 4c does not reflect new information about conditions in the lake, rather this category designation more effectively communicates that TCEQ will not do a TMDL for dissolved oxygen, nor will the Agency seek to change the criteria at this time. *At the June 27, 2007 Agenda, the Commission directed staff to return dissolved oxygen to Category 5c. This parameter is on the 2006 303(d) list.*
		Segment 0402 (Big Cypress Creek) has a greater than 10% exceedance rate for dissolved oxygen in the 11 miles below Black Cypress Creek, and there were only eight, 24-hour samples in the period of record in the lower nine miles, therefore the delisting is not justified. The lead data justifying the delisting are not available for review.	Nine 24-hour samples are currently available for the lower nine miles with no exceedance of the minimum criteria and only one exceedance of the average (4.6 mg/l). All grab data are fully supporting the minima. Best professional judgment was used to delist the water body even though the exceedance rate is 11% because these data indicate good oxygen conditions. The most recent 14 lead in water samples, collected with improved analytical methods are now available for review and all support the acute and chronic lead criteria.
		Segment 0506 (Sabine River below Lake Tawakoni) has been proposed for delisting bacteria. The geographic area delisted has not been adequately described.	AU descriptions, and corresponding lengths, were changed for the 2006 assessment to reflect tributary influences rather than dividing reaches at bridge crossings. The length of AU_04 has been extended by 0.5 miles, but is assessed based on the same monitoring station as in 2004. The geometric mean for E. coli in 2006 meets the criterion for de-listing.
		Segment 0507 (Lake Tawakoni) has been proposed for delisting D.O. The delisting has not been justified with only 8 samples.	There were no exceedances of the DO criteria for the eight 24-hr samples. Instantaneous DO measurements also corroborate improved DO for the AU. Based on the conditions documented with both datasets, additional 24-hr samples are expected to meet the criteria, thus the DO impairment was removed.
		Segment 0601A (Star Lake Canal) has been proposed for delisting D.O. The	Star Lake Canal was originally listed in 2002 applying presumed criteria of 4.0/3.0 mg/L

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
		delisting has not been justified due to the lack of 24-hour data.	DO criteria. Once a UAA was completed, the criteria were changed to 3.0/2.0. The original data set included in the 2002 assessment was reassessed with the current and appropriate criteria and statistical methods. The collection of additional 24-hour DO measurements is not necessary because the original data set does not justify the 2002 listing when the appropriate criteria are applied. Analysis of current data for the 2006 Assessment has resulted in a status of No Concern/Fully Supporting for DO (grab) average/minimum, applying the 3.0/2.0 mg/L criteria, respectively, which also supports the decision to delist.
		Segment 1007H (Pine Gully above Tidal) has been proposed for delisting D.O. The delisting has not been justified considering all of the available data indicating water quality problems.	Data used to list this water body was removed when it as discovered in an audit that the dissolved oxygen data measurements were not reliable. The original listing was based on this invalid data set. The more recent and accurate dataset has three grab samples and one 24-hour sample. This water body will be assessed when a more complete data set is available.
		Segment 1007I (Plum Creek above Tidal) has been proposed for delisting dissolved oxygen. The delisting has not been justified when the limited data are considered.	See response for Segment 1007H above.
		Segment 1210 (Lake Mexia) has been proposed for delisting D.O. The delisting has not been adequately described geographically for the western end of the reservoir.	24-hr DO sampling data were assessed and presented in the draft assessment for both assessment units of Lake Mexia, including the western portion (1210_01 and 1210_02) and indicate full support of the Aquatic Life Use dissolved oxygen criteria.
		Segment 1222 (Proctor Lake) has been proposed for delisting dissolved oxygen. The delisting has not been adequately described geographically, in particular, the conditions on the Rush-Copperas Creek arm are not specified.	This impairment was originally identified on the 1999 303(d) List, based on an assessment performed with the entire lake as one assessment unit. However, the majority of samples exceeding criteria from the 1999 List were actually concentrated in the Sabana River Arm rather than the Rush-Copperas Creek Arm of the lake. Recent 24-hr DO samples from the Sabana River Arm indicate full support of the Aquatic Life Use dissolved oxygen criteria and the entire lake is now identified as supporting the criteria.
		Segment 1238 (Salt Fork Brazos River) has been proposed for delisting TDS and chloride. However, there is not sufficient data for all AUs to support the delisting. In particular, the area described as "remainder of the segment" is not adequately characterized.	TDS and chloride data from all stations on segment 1238 were used to determine support of segment-wide TDS and chloride criteria. These constituents are conservative and vary only gradually over space and time in the water body. Because these criteria were developed from data collected segment-wide, even assessment areas without data are

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
			assigned the same support status when listing or delisting. The TDS criterion is supported. However, the chloride criterion is not supported as a result of the river flowing through geologic formations bearing high concentrations of salt. TCEQ is reviewing the chloride criterion and this impairment remains listed in Category 5b.
		Segment 1427 (Onion Creek) has been proposed for delisting D.O. The delisting has not been justified in that the available data indicate an exceedance rate greater than 10%.	This water body supports the standard. It was originally listed with grab DO samples, however, now adequate 24-hour DO data are available. Using the binomial method, these 24-hr samples were assessed. There are 14 24-hour samples available with two exceedances of the minima. The average and minima criteria are supported and the water body will not be relisted
		Segment 2117 (Frio River above Choke Canyon Reservoir) has been proposed for delisting bacteria. The number of exceedances is greater than the requisite 25%. The delisting is not justified.	This water body supports the standard. Additional requirements were added in 2006 to make it less likely that water bodies like this that are identified as supporting criteria in 2006, would be relisted in future assessments. For the 18 samples available for this water body listed on the 2004 303(d) List, more than 5 exceedances would be required for it to remain on the list in 2006.
		Segment 2304 (Rio Grande below Amistad Reservoir) has been proposed for delisting toxicity, however, the dataset has not been described geographically and the exceedance rate is greater than 10%. The delisting has not been justified.	In the area from Amistad Dam to the confluence with Las Moras Creek (AUs 01 thru 03), there are a total of 29 samples with one exceedance. The single exceedance, was a sub-lethal effect on *Ceriodaphnia dubia*. The data support the delisting of 2304 for ambient toxicity.
		Segment 2473 (Saint Charles Bay) has been proposed for delisting bacteria. The available data indicate the listing should be continued. The delisting is not justified.	This water body supports the standard. Additional requirements were added in 2006 to make it less likely that water bodies like this that are identified as supporting criteria in 2006, would be relisted in future assessments. For the 23 samples available for this water body listed on the 2004 303(d) List, more than 6 exceedances would be required for it to remain on the list in 2006.
# 05 Lower Neches Valley Authority	4/17	Segments 0603A (Sandy Creek), 0607 (Pine Island Bayou), 0607B (Little Pine Island Bayou), 0607C (Willow Creek), 0608 (Village Creek), 0608A (Beech Creek), 0608C (Cypress Creek), 0608D (Hickory Creek), 0608F (Turkey Creek), and 0701 (Taylor Bayou above Tidal) are listed for dissolved aluminum or lead. The data contributor has reviewed the data and has identified discrepancies in analytical results for aluminum. The data contributor intends to resample and	TCEQ has investigated these discrepancies over the last month. Results of split samples prepared in the field and sent to several labs have identified unusually high levels of aluminum, lead and other metals resulting faulty field supplies. These same supplies have been used at times by other monitoring entities that have contributed data for the assessment. The new listings for metals in water proposed from the data that were generated with these supplies and practices will not be added to the 2006 303(d) List. A

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
		believes the data used in the assessment to be inaccurate.	corrective action has been initiated to identify all effected data, determine the root cause of the discrepancies, and to prevent reoccurrence. Sampling plans for metals statewide will be reviewed to insure that data are collected for future assessments where these nonconforming samples have been removed and have left data gaps.
# 06 North Texas Municipal Water District	4/18	Segment 0823B (Stewart Creek) has been listed for copper in water using inappropriate default hardness values for Lake Lewisville. Site-specific hardness values should be used to calculate criteria and the results reevaluated.	Chronic and acute criteria have been recalculated using site-specific hardness values derived from Ca and Mg data over a ten year period including recent sample results. As a result of this reanalysis, the water body will not be listed for copper in water.
# 07 San Antonio River Authority	4/18	Segment 1902 (Lower Cibolo Creek) is identified on the draft 303(d) list for impairment of the fish community. The commenter has sampled the creek and asserts that the fish community is meeting the designated High Aquatic Life Use.	Available data were reviewed and the Index of Biotic Integrity was applied. Segment 1902 will remain listed on the draft for impaired fish community.
# 08 Lower Colorado River Authority	4/18	Segment 1304(Caney Creek Tidal), 1401(Colorado River Tidal), and 1501(Tres Palacios Creek Tidal), as well as other tidally influenced water bodies are now being listed for Enterococcus using the IDEXX method. LCRA requests that TCEQ review the change to the new indicator and method to assure it is appropriate.	TCEQ adopted new indicators because they more accurately reflect the risk to human health in tidal waters. The IDEXX method is approved for Enterococcus in salt water. The enterococcus data now available indicate nonsupport of the contact recreation criteria for these water bodies.
		The proposed listing for habitat in Segment 1409 (Colorado River above Lake Buchanan) is in error.	This water body was proposed in error for listing. A review of all available data indicates that the area from the confluence with Cherokee Creek upstream to the confluence of the San Saba River is fully supporting for habitat.
		Segments 1404 (Lake Travis), 1406 (Lake Lyndon B. Johnson), and 1407 (Inks Lake) have concerns identified for dissolved oxygen immediately downstream from the dam, but these are not real water quality concerns. TCEQ should review their methodology for evaluation of data that are collected below a dam where bottom releases result in anoxic conditions. For some reservoirs with long detention times and that stratify, the mixed surface layers are being determined in a way that incorrectly identifies a concern for dissolved oxygen. TCEQ should consider ways of altering the method for these	For future assessment TCEQ will consider the appropriateness of evaluating criteria in the limited area below dams and the protection of aquatic life in these water bodies. TCEQ has considered modifying the method for evaluating dissolved oxygen profiles in reservoirs to more accurately describe risks to aquatic life. The conditions described by the commenter are unusual and in these instances professional judgment is used in evaluating

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
		types of reservoirs.	the dissolved oxygen profiles. Note, however, the criteria for Exceptional Aquatic Life Use of 6.0 mg/L are sometimes not met throughout the water column, including the surface waters.
# 09 Sabine River Authority	4/18	Site selection and intent of data collection should be considered when monitoring entities sample sub-watersheds specifically for the purpose of "screening" and not assessment. Data collected for this purpose on small water bodies vary widely due to rainfall and other conditions and cannot be compared to standards which are most developed for larger classified streams.	When data are collected using methods consistent with TCEQ practices these are considered in the assessment. Data, however, must be representative both spatially and temporally of the water body sampled. If the presumed aquatic life use for a stream with particular flow conditions are not met, site specific criteria can be developed to establish realistic goals for water quality. TCEQ is reviewing the current practice of listing water bodies based on presumed uses before the site specific criteria have been developed.
		Natural conditions should be considered when comparing data to standards developed to limit non-natural influences. TMDLs will do little to change water quality when natural conditions cause impairments. D.O. levels lower than the criteria are often the result of natural seasonal conditions in East Texas streams. These water bodies should not be listed in Category 5 as TMDLs will not result in changes in dissolved oxygen conditions. Bacteria listings are sometimes the result of wildlife and, a TMDL, would initiate no action that would lower bacteria levels.	The 303(d) List includes some water bodies that do not support their standards and for which additional information must be collected before it is determined if indeed preparing a TMDL is a useful water quality management action. For some water bodies it may be determined that the standards and criteria should be revised to set attainable water quality goals.
		Toxicity testing in the Sabine Basin has resulted in listing of water bodies with only the toxicity results when the intent of the data collection was to use a multi-tiered approach which included fish and benthic sampling. Biological samples indicated most sites were not impaired. The toxicity tests were conducted on a single grab sample and were therefore inappropriate for generating a listing because results did not reflect an average ambient condition. Segments 0501B_01,_02,_03, 0502A_01, 0504C_01, and 0506G_01 were listed with these data in past assessments.	The aquatic life use is not supported if water samples are toxic as indicated by ambient toxicity tests. There are many questions about the laboratory test conditions and interpretation of the results for samples run for this toxicity monitoring program. Further toxicity testing of instream conditions on these listed water bodies will be conducted to determine if these water bodies demonstrate toxicity. These impairments will remain on the list pending the outcome of the study.
		Segment 0501_02 (Sabine River Tidal) bacteria listings are likely the result of the stream location immediately downstream	The contact recreation criteria are not supported in Segment 501. The assessment notes that the predominant source of bacteria

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
		of and adjacent to two Wildlife Management areas which harbor diverse wildlife and migratory bird populations.	is wildlife.
		Annexation by the City of Orange and the subsequent diversion of sanitary sewer flows to an existing plant is expected to improve water quality conditions which led to D.O. and bacteria listings in Segment 0501B.	When this project has progressed further, documentation that indicates sanitary sewer flows are being diverted from the water body and processed by the City of Orange Jackson Street plant, and assurances that the standard will be met, could be sufficient to move these impairments to Category 4b.
		D.O. and bacterial listings for 0502A are the result of natural swamp conditions typical of East Texas bottomlands. A more appropriate category would be 4c.	Category 4c is assigned to impairments that are caused by stressors other than specific pollutants that can ~~not~~ be allocated under a TMDL. For 2006 the TCEQ has put some impairments (nonsupport of applicable water quality standards) in this category that are considered characteristic of natural water quality conditions and for which TCEQ does not intend to review or change the standards at this time. However, Category 4c will not be used for criteria established to protect human health, including bacteria, unless a sanitary survey documents that there are no human influenced sources of bacteria and an epidemiological study documents that observed bacteria levels are not a health risk to humans. Segment 502A will remain in Category 5.
		Bacteria listings for Segment 0502B are the result of non-point sources and thus would not benefit from a TMDL.	Category 5c is assigned to this impairment to indicate additional sampling is required to characterize the impairment and identify the sources. Aerial photographs indicate residential areas upstream of the site which may contribute thorough septic systems.
		Segment 0504_01 should not be characterized by two stations in two hydrologically distinct areas.	Water quality conditions for both stations are hydrologically similar which led to the grouping into one assessment area.
		Mercury in fish tissue listings for Segment 0504 are likely the result of atmospheric deposition from emissions within and outside of the State of Texas and thus cannot be controlled by a TMDL and should be moved to Category 4c.	Mercury contamination is caused by a pollutant and is listed in Category 5. Considering that the source for mercury is primarily outside the control of the states, EPA has proposed that states develop a comprehensive mercury control strategy to demonstrate progress in reducing mercury sources and defer developing TMDLs. TCEQ staff is discussing this alternative which is described at this url: http://www.epa.gov/owow/tmdl/mercury5m/mercury5mfactsheet.html
		D.O. listing for Segment 0504_06 based on a station which is not representative of the reservoir.	This water body remains listed and the monitoring entity in the basin will collect 24-hr D.O. data at a representative station in this

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
			area of the reservoir to evaluate support of the DO criteria.
		It is not possible to comment on the bacteria listing for Segment 0507G_01 because data have not been available.	These data were collected by an entity participating in the basin cooperative monitoring plan and data are now available on the TCEQ water data website.
		Segment 0507H_01 should be designated as an intermittent stream and should be assessed with corresponding D.O. criteria. Assessment data were collected from different locations, but attributed to the same TCEQ station. In addition, some data were collected below a presumed 7Q2 of 0.1 cfs and thus should be excluded from assessment.	Stream flow-type has been re-evaluated and data collection sites have been confirmed. The stream is now assigned a flow-type of intermittent. Data are not removed for intermittent streams at any flow condition. However, available data show that the appropriate criteria are supported and the water body has been removed from the draft list.
# 10 City of Texarkana	4/18	Segments 0304A (Swampoodle Creek) and 0304B (Cowhorn Creek) are listed for impairment of the fish and benthic communities based on presumed aquatic life use (ALU). This listing will result in unnecessary permit restrictions. A use attainability analysis (UAA) should be completed to establish the appropriate ALU before assessing and possibly listing the water bodies. The determination that both streams are perennial should be reviewed. Both streams are heavily channelized and urbanized and it is unlikely that the habitat would support a diverse aquatic community. These water bodies flow into larger, less urban streams that have been determined to have an intermediate ALU.	Current guidance provides for assessment and listing of unclassified water bodies based on a presumption of aquatic life use associated with stream flow-type. Swampoodle and Cowhorn Creeks have been assessed using presumed high ALU based on perennial flow which was assigned using available information. Section 307.9 of the Texas Surface Water Quality Standards describes procedures for Determination of Standards Attainment. 307.9(f) TSWQS states that "Biological integrity, which is an essential component of the aquatic life categories defined in 307(b)(3) of this title, is assessed by sampling the aquatic community. Attainment of aquatic life use may be assessed by indices of biotic integrity which are described in publicly available documents such as in the latest version of TCEQ's *Guidance for Screening and Assessing Texas Surface and Finished Drinking Water Quality Data*." This is the methodology used for evaluating the aquatic assemblages of Swampoodle and Cowhorn Creeks. TCEQ is reviewing the current practice of listing water bodies based on presumed uses before the site specific criteria have been developed.
# 11 Cibolo Creek Municipal Authority	4/18	Segment 1913 (Mid-Cibolo Creek) has been proposed for listing bacteria. The commenter requests that the TCEQ review the flow data during the time samples were collected to determine if all of the samples should have been evaluated. Listing of this segment may result in permit restrictions even though all violations occurred upstream of the discharge. The AU boundaries should be	A review of the bacteria data used and associated flow information indicate that the data have been appropriately evaluated. The impairment is indeed upstream of the wastewater discharge. The downstream boundary of AU 1913_03 has been described to indicate that the AU is upstream of wastewater discharge. References to Buffalo Trail will be changed to Buffalo Lane.

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
		moved or defined to reflect the hydrologic change that results from the wastewater discharge. Additionally, all references to Buffalo Trail should be changed to Buffalo Lane in the AU and site descriptions.	
# 12 City of Dallas	4/18	Segment 0841H (Delaware Creek) is improperly named as "Finley Road in Dallas". The description should be revised to "Finley Road in Irving"	This change will be made in the database.
# 13 Lone Star Steel	4/18	Segment 0404A (Ellison Creek Reservoir) is listed for sediment toxicity although TCEQ and LSS conducted surveys side by side and the data, although similar, do not agree. The site by site unexplained differences in the results render the sediment data suspect. Although contaminant levels were in agreement, and show declining concentrations toward upper reservoir, the ambient toxicity samples were only in agreement in the lower part of the reservoir.	Although evidence of toxic conditions is lower in the upper reservoir where sediments are more recently deposited, the reservoir is small and is best listed and managed for water quality protection as one assessment unit. Some of the differences in the sediment results between the studies are due to the fact that sediments vary spatially and the 16 sites were close but not exactly the same for the two surveys.
		Benthic data were collected by the commenter's consultants during the joint survey, and although this is one of the three lines of evidence (toxicity tests, contaminant levels, and biological data), the data were not used in the TCEQ assessment.	Benthic data were not collected by TCEQ. The commenter's consultant's benthic data was not used by TCEQ because TCEQ has not developed metrics for the evaluation of these data and assessment of biological communities in reservoirs. The consultant's analysis of biological data did not establish that the community was healthy, only that the biological assemblages are influenced primarily by contaminant levels and depth/habitat features and not explained by the toxicity or contaminant results.
		The commenter objects to the weighting assigned in the Guidance to the lines of evidence. An assessment of the biological community provides the most direct evidence of the potential effects of toxicity and the greatest weight should be given to these data. Sediment toxicity tests may not accurately predict effects of contaminants on the biological community and should not be the primary line of evidence. TCEQ has assigned the greatest weight to ~~the~~ this line of evidence. Elutriate test should only be used for screening.	TCEQ included a point system in the Guidance for scoring lines of evidence to indicate to stakeholders how the Agency would weight the information used for support decisions. For the 2008 assessment TCEQ will discuss documenting weights with a point system.
		Best professional judgment was not based on all available data, rather only the	Because toxic substances and toxicity tests indicate toxicity at other sites in this small

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
		results of the survey conducted by the TCEQ, and was applied in a way that "tipped" the scoring toward the results of an already overweighted reliance on toxicity tests. The contribution of "10 points" for professional judgment indicating toxicity at four sites with evidence only from toxicity tests should be revised. A determination of toxicity for a water body when there are toxic conditions at more than ten percent of the sample sites is arbitrary.	reservoir the BPJ of 10 points was added to indicate that toxic result from this one test is adequate evidence of toxicity at this site. Note that although the toxic status of these sites was "tipped" by the addition of points for BPJ, even if these points were not assigned to these four sites, 25% of the sites in the reservoir would still be identified as toxic. Individual samples were evaluated with a maximum exceedance rate in the same manner as samples for other assessment methods. 303(d) long-term planning process. Available evidence for listing the reservoir for toxicity is adequate. The next step is to establish that there no ongoing sources of contaminants.
# 14 Caddo Lake Institute	4/18	Segment 0401A (Caddo Lake) D.O. listing is proposed to be moved from Category 5c which provides for initiating a TMDL when additional information is available, to 4c which does not require a TMDL. The category should not be changed until the results of the Caddo Lake Watershed Protection Plan are concluded and all data used for the category change are reviewed. TCEQ has not provided a basis for its position that the cause of low dissolved oxygen is the result of natural conditions. The nutrient loadings to the lake are currently unknown and could be the cause of the low D.O. conditions rather than natural conditions. Stakeholders should not be required to comment on assessment that is performed based on an inappropriate assessment methodology. The commenters concur with the comment on the guidance – see Comment #4 as it pertains to the Guidance (and the response).	Category 4c is assigned to impairments that are caused by stressors other than specific pollutants that can ~~not~~ be allocated under a TMDL. TCEQ has assigned the dissolved oxygen impairment for the upper portion of Caddo Lake to this category because water quality is characteristic of natural conditions. The portion of the lake assigned Category 4c is a swamp and has a long, historical record of low D.O. caused by very shallow water, low circulation, and many trees providing shelter from wind, all conditions that, especially during summer months, lead to D.O. levels below the criterion. The assignment of Category 4c does not reflect new information about conditions in the lake, rather this category designation more effectively communicates that TCEQ will not do a TMDL for dissolved oxygen, nor will the Agency seek to change the criteria at this time. The goal of the Watershed Protection Plan (WPP) is to develop a range of practices to improve water quality and protect the sensitive aquatic habitat in Caddo Lake. An important aspect is the characterization and control of nutrient loads to the lake through BMPs and wastewater controls in the contributing watershed. Caddo Lake remains impaired for dissolved oxygen in Category 4c and TCEQ continues its commitment to funding and supporting the WPP.

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
			At the June 27, 2007 Agenda, the Commission directed staff to return dissolved oxygen to Category 5c. This parameter is on the 2006 303(d) list.
		Segment 0402 (Big Cypress Bayou) is proposed for delisting dissolved oxygen and lead. The approach used by TCEQ for determining use support and delisting, in particular dissolved oxygen, is not conservative enough. A review of the data is requested.	Nine 24-hour samples are currently available for the lower nine miles with no exceedance of the minimum criteria and only one exceedance of the average (4.6 mg/l). All grab data are fully supporting the minima. Best professional judgment was used to delist the water body even though the exceedance rate is 11% because these data indicate good oxygen conditions. The most recent 14 lead in water samples, collected with improved analytical methods are available for review and all support the acute and chronic lead criteria. The data have been provided to the commenter.
		Segment 0407 (James Bayou) is proposed for delisting copper. A review of the data is requested.	In 2001, the TCEQ implemented ultra-clean methods for collection and analysis of metals data. All data assessed for this segment since 2001 are below the criterion. These data have been provided to the commenter.
# 15 Trinity River Authority	4/18	Segment 0833 (Clear Fork Trinity River above Lake Weatherford) is listed for non-support of the dissolved oxygen criterion. In the 2004 assessment there was: not assessed for DO grab average, fully supporting for DO grab minimum, no concern for DO 24-hr average, and no concern with limited data for the 24-hr minimum. For the 2006 assessment there is: no concern for DO screening level, no concern for DO grab minimum, no concern for DO 24-hr average, and a concern with limited data for DO 24-hr minimum. Should the DO 24-hr minimum be not supporting, rather than the DO grab minimum? If this is the case, when data are limited can the there be a nonsupport (4 samples with 2 exceedances)?	This segment was originally listed in 1996 based on grab DO samples. There are currently inadequate 24-hour dissolved oxygen samples to fully assesses the dissolved oxygen and perhaps delist the segment. The current assessment indicates that the segment is not supporting the criterion, based on three exceedances out of five 24-hour DO samples 0833_03 (note that three out of ten samples would also be not supporting)
		Segment 0823B (Stewart Creek) sample site is just downstream of a waste-water treatment plant. The commenter requests that TCEQ review the site location to assure it is not within a mixing zone.	TCEQ has determined in the permitting process that Stewart Creek is an intermittent stream with no significant aquatic life use. In these types of streams, as stated in the Procedures to *Implement the Texas Surface Water Quality Standards*, acute toxic criteria apply at the point of discharge. No dilution is assumed and a mixing zone is not considered in determining compliance with the acute standard. Note however, that the copper

Comment Letter	Date Received	Summary of Request or Comment	Summary of Action or Explanation
			criterion has been recalculated with site-specific hardness and the appropriate standard is supported; the water body will not be included on the 2006 list.