State of Texas 1996 303(d) List (04/09/97)

Legend for coded columns (3 - 6 and 8):

Standards Support (3): N = nonsupport of designated use(s); P = partial support of designated use(s); X = exceeded numeric criteria

When multiple levels of standards support are applicable for a segment, only the most severe level is indicated.

- On NPS List (4): Y indicates the segment has been determined to have significant nonpoint source contributions and is included in the draft Nonpoint Source Pollution Assessment Report for the State of Texas, 1996 Update.
- Targeted (5): A large bullet (•) indicates the segment is targeted for TMDL development work during the next two years. Completion of TMDLs during that two year period cannot be assured. Other studies or projects that may support TMDLs are planned or underway, but are not indicated.

Basin Group (6): Letter code (A - E) indicates which group of river basins the segment is associated with in the TNRCC permitting by basin cycles. Shaded lines in table separate basin groups. Within basin groups, segments are arranged by priority level, then by segment number.

Group A - Canadian River, Red River, Sulphur River, Cypress Creek, Sabine River, Sabine Pass, Neches River, Trinity River (partial)

Group B - Trinity River (continued), San Jacinto River (partial)

Group C - San Jacinto River (continued), Neches-Trinity Coastal, Trinity-San Jacinto Coastal, San Jacinto-Brazos Coastal, Bays and Estuaries

Group D - Brazos River, Brazos-Colorado Coastal, Lavaca River, Colorado River (partial), Bays and Estuaries

Group E - Colorado River (continued), Guadalupe River, San Antonio River, Rio Grande, Nueces River, San Antonio-Nueces Coastal, Colorado-Lavaca-Nueces-Rio Grande Coastal, Bays and Estuaries, Gulf of Mexico

Priority (8): H = high; M = medium; L = low; T = threatened (data do not show statistically significant noncompliance with water quality standards)

Segment Number	Segment Name	Standards Support	On NPS List	Targeted	Basin Group	Segment	Priority	Reasons
205	Red River Below Pease River	N			A	Fecal coliform levels in the area near Burkburnett exceed the criterion for contact recreation. The average cadmium in water level exceeds the chronic criterion, causing nonsupport of the aquatic life use.	М	Need more cadmium data; fecal coliform has minor effect on uses
211	Little Wichita River	N	Y		A	Dissolved oxygen levels are occassionally depressed, causing nonsupport of the aquatic life use.	М	Need more data to define problem
303	Sulphur/South Sulphur River	N			A	As a result of periodically depressed dissolved oxygen levels, and elevated levels of dissolved aluminum in water, the designated high aquatic life use is partially attained in the lower portion of the segment. Due to elevated levels of dissolved cadmium in water, the designated high aquatic life use is not supported in the upper portion of the segment.	М	Need more data on metals; low DO due to natural causes
401	Caddo Lake	N			A	Restricted consumption advisories for the general population and children and women of child bearing age was issued by the Texas Department of Health in November of 1995 for Caddo Lake. The advisory was issued due to elevated levels of mercury in fish tissue. In Caddo Lake, largemouth bass (<i>Micropterus salmoides</i>), and the freshwater drum (<i>Aplodinotus grunniens</i>) are the species affected. There are periodic pH exceedances in the segment. Water temperature values occasionally exceed criteria in the segment. Due to elevated concentrations of dissolved zinc in water, the middle reach of the lake does not support the designated high aquatic life use. The upper end of the lake partially supports the designated high aquatic life use due to the elevated concentration of dissolved mercury in a water sample collected in 1986.	М	Need more data on dissolved metals; temperature and pH have minor effects and are due to natural causes
403	Lake O'the Pines	Р	Y		A	The designated high aquatic life use is partially supported in approximately ¹ / ₂ of the reservoir extending upstream from the dam due to elevated levels of dissolved zinc in water.	М	Need more zinc data to define problem

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404	Big Cypress Creek Below Lake Bob Sandlin	Р	Y		A	A fish restricted consumption advisory for the general population and a no consumption advisory for children younger than seven and women of childbearing age was issued by the Texas Department of Health in May 1992 for Welsh Reservoir in Titus County. The advisory was issued due to elevated levels of selenium in fish tissue. All fish species tested have shown elevated selenium levels. Elevated fecal coliform levels allow only partial support of the contact recreation use for the segment. pH values occasionally exceed criteria for the segment. Comments received from regional interests report that a July 1996 TPWD survey attributed absence of mussels and clams from Big Cypress Creek to effects of discharge associated with the chicken-packing industry. Historical data from the Clean Rivers Program suggest that depressed dissolved oxygen levels are not unusual, although data processed for this listing did not reveal such problems. Low dissolved oxygen levels, possibly related to wastewater discharges, may be an intermittent but chronic problem in local waters and are of concern to regional interests.	М	Fecal coliform and pH have minor effect on uses; pH is primarily due to natural conditions; Regional interests have indicated a strong desire for a moratorium on increased chicken processing wastewater discharges, and for TMDL analyses of potential loading and water quality impacts from production and processing of chickens. Specific parameters for which TMDLs may be needed include dissolved oxygen, nutrients, and metals.
409	Little Cypress Bayou (Creek)	N	Y		A	Elevated levels of fecal coliform bacteria allow only partial support of the contact recreation use in a 25 mile stretch of the segment downstream of HWY 271 in Upshur County. Due to elevated levels of dissolved cadmium and lead in water the designated high aquatic life use is not supported in the lower 25 miles of the segment.	М	Need more data on dissolved metals to define problem; fecal coliform levels have minor effect on uses
505	Sabine River Above Toledo Bend Reservoir	N	Y		A	A restricted consumption advisory for the general population and a no consumption advisory for children younger than seven and women of child-bearing age were issued by the Texas Department of Health in May 1992 for Martin Creek Reservoir in Rusk County and for Brandy Branch Reservoir in Harrison County. The advisory was issued due to elevated levels of selenium in fish which have been detected in all species of fishes tested. As a result of occasional depressed dissolved oxygen concentrations, the high aquatic life use is only partially attained in a stretch of the segment from the vicinity of State Highway 149 in Panola/Gregg Counties to approximately 25 miles downstream near the confluence of Potter's Creek in Harrison/Panola Counties. Due to elevated levels of dissolved cadmium and lead in water, the designated high aquatic life use is not attained in the lower 25 miles of the segment. The Sabine River Authority does not agree that lead and cadmium are elevated, nor that lead and cadmium should be considered in priority ranking of the segment.	М	DO problem of limited geographic extent; Local concern over pending increases in wastewater discharge and studies have begun; more data needed to determine if cadmium and lead are problematic
513	Big Cow Creek	N			А	Due to elevated levels of fecal coliform bacteria, the contact recreation use is not supported in the lower 25 miles of the segment. The designated high aquatic life use is partially supported in the same portion of the segment due to elevated levels of dissolved aluminum in water.	М	Sabine River Authority agrees that more data is needed to define aluminum problem; fecal coliform has minor effect on use
602	Neches River Below B.A. Steinhagen Lake	N	Y		A	Although there have been no violations of the cadmium in water acute criterion, the mean exceeds the chronic criterion causing nonsupport of the aquatic life use in an area near Silsbee.	М	Need more data on cadmium

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604	Neches River Below Lake Palestine	N			А	Low dissolved oxygen levels occur in the uppermost portion of the segment when bottom waters are released from Lake Palestine; however, they do not occur with enough frequency to cause nonsupport of the aquatic life use. Although there have been no violations of the cadmium in water acute criterion, the mean of samples exceeds the chronic criterion causing nonsupport of the aquatic life use in an area near Rockland (US 69).	М	Need more data on cadmium; occassional low DO has very minor effect and is uncontrollable
607	Pine Island Bayou	N	Y		A	Depressed dissolved oxygen levels and elevated fecal coliform densities occur primarily during summer conditions when stream flow becomes sluggish. As a result, the high aquatic life and contact recreation uses are not supported in the middle portion of the segment. A use attainability analysis has been scheduled for this segment by the TNRCC to evaluate applicability of the high aquatic life use and the causes of depressed dissolved oxygen.	Μ	More data is needed to determine appropriate standards, and study is scheduled; natural conditions contribute to low DO and fecal coliform levels
610	Sam Rayburn Reservoir	Ν	Y		А	Due to mercury in fish tissue, the Texas Department of Health issued restricted consumption advisories in November 1995 for the general population, children, and women of child bearing age. Depressed dissolved oxygen levels and elevated fecal coliform densities occur in the upper portion of the reservoir and contribute to nonsupport of the high aquatic life and contact recreation uses, respectively.	М	Need more data to determine causes of DO and fecal coliform problems; project to address mercury is underway
611	Angelina River Above Sam Rayburn Reservoir	N			A	Depressed dissolved oxygen levels occur in the lower portion of the segment causing nonsupport of the aquatic life use. These conditions appear to be natural and reflect the effects of sluggish stream velocity near the headwaters of Sam Rayburn Reservoir. The TNRCC has updated the wasteload evaluation for the segment and advanced waste treatment was recommended at major dischargers in order to maintain the dissolved oxygen criteria. Aluminum in in water levels have exceeded the acute criterion causing nonsupport of the aquatic life use in the lower part of the segment.	М	Need more data to determine extent of aluminum problem
829	Clear Fork Trinity River Below Benbrook Lake	Р	Y		A	The Texas Department of Health has issued aquatic life closures for two areas in the watershed: (1) a 1-mile reach of the Clear Fork Trinity River from 7th Street in Fort Worth to the West Fork Trinity River confluence, in January 1990, due to elevated levels of chlordane in fish tissue; and (2) Lake Como, an unclassified 15-acre reservoir in Fort Worth, in April 1995, due to elevated levels of chlordane, PCBs, dieldrin, and DDE in fish tissue. The contact recreation use is only partially supported in the downstream half due to elevated fecal coliform bacteria levels.	М	Need data on chlordane contamination; fecal coliform has minor effect on use and is geographically limited
841	Lower West Fork Trinity River	N	Y		A	The Texas Department of Health issued an aquatic life closure in January 1990, due to elevated levels of chlordane in fish tissue. The entire segment is affected by this closure. An aquatic life closure was issued in April 1996 for Mountain Creek Lake, a small urban reservoir located near Grand Prairie, due to elevated levels of selenium and PCBs in fish tissue. The contact recreation use is not supported due to elevated fecal coliform bacteria levels.	М	Need to monitor chlordane in river, selenium and PCBs in Mountain Creek Lake; fecal coliform has minor effect on uses
221	Middle Fork Pease River	X			A	Average chloride, sulfate, and total dissolved solids levels exceed segment criteria.	L	Minor effect on uses; need to investigate standards

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228	Mackenzie Reservoir	X			A	The average level of total dissolved solids exceeds the criterion.	L	Minor effect on uses
229	Upper Prairie Dog Town Fork Red River	N			A	Dissolved oxygen is depressed in the upper part of the segment, causing nonsupport of the aquatic life use. Water quality in the segment is dominated by the discharge and assimilation of effluent from the City of Amarillo Hollywood Road Wastewater Treatment Plant. Average levels of sulfate exceed the criterion.	L	A draft TMDL for DO has been done; need to monitor effects as changes are implemented
302	Wright Patman Lake	N	Y		А	As a result of periodically depressed dissolved oxygen levels, the designated high aquatic life use is partially attained near the dam and not attained in the upper end of the reservoir around State Highway 8.	L	Low DO due to natural causes and/or lake hydraulics
406	Black Bayou	N			A	As a result of low dissolved oxygen concentrations the segment does not support the intermediate aquatic life use. Organic loading from domestic wastewater discharges, as well as from natural sources coupled with sluggish flow contribute to the problem.	L	Low DO is primarily due to natural conditions
503	Sabine River Below Toledo Bend Reservoir	Ν	Y		А	The lower 25 miles of the segment do not support the contact recreation use due to elevated levels of fecal coliform bacteria, nor the designated high aquatic life use due to elevated levels of dissolved lead in water. The upper 25 miles of the segment do not support the designated high aquatic life use due to elevated levels of dissolved lead and cadmium in water. Comments received from the Sabine River Authority reported that their analyses do not verify the nonsupport designations described above, and indicate a belief that the segment should not be designated as having a Medium priority for TMDL development for the listed constituents.	L	Fecal coliform has minor effect on uses; data needed to define metals problem; Sabine River Authority does not believe that TMDL development is appropriate at this time.
508	Adams Bayou Tidal	N	Y		A	As a result of depressed dissolved oxygen concentrations and elevated fecal coliform levels, the segment does not meet the high aquatic life nor the contact recreation uses. Sluggish flow coupled with organic loading from industrial and municipal wastewater discharges likely contribute to the problem.	L	Low dissolved oxygen is likely to be due to natural conditions; fecal coliform has minor effect on uses
606	Neches River Above Lake Palestine	N			A	Zinc in water levels exceed the chronic criterion causing nonsupport of the aquatic life use. Dissolved oxygen levels in the segment are typically depressed during low flow periods in the summer months and are partially attributable to sluggish flow conditions. A use attainability analysis lowered the dissolved oxygen criterion to reflect these natural conditions. Implementation of advanced wastewater treatment at the City of Tyler's facilities has also contributed to improved water quality conditions in the segment. Dissolved oxygen levels were sufficient to partially support the aquatic life use in the segment. Tyler's effluent also contains elevated levels of sulfate and total dissolved solids and is primarily responsible for nonsupport of criteria.	L	A WLE for DO has been implemented; remaining low DO is at least partly due to natural conditions; zinc presents minor threat to uses but will be monitored
831	Clear Fork Trinity River Below Lake Weatherford	N			A	The aquatic life use is not supported in the upper 8 miles because of depressed dissolved oxygen levels. The contact recreation use is not supported in the upper eight miles, and only partially supported in the lower 11 miles, due to elevated fecal coliform bacteria levels.	L	DO and fecal coliform have minor effect on uses and are geographically limited

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103	Canadian River Above Lake Meredith	N	Y		A	Fecal coliform levels exceed the criterion for contact recreation.	Т	Minor effect on uses; natural or uncontrollable nonpoint sources
207	Lower Prairie Dog Town Fork Red River	N	Y		A	Fecal coliform levels exceed the criterion for contact recreation in the upstream reach of the segment.	Т	Minor effect on uses; likely to be of natural origin
222	Salt Fork Red River	Р	Y		A	Fecal coliform levels sometimes exceed the criterion for contact recreation. Water temperatures are also occasionally elevated.	Т	Very minor effect on uses; limited data set does not support the initial assessment of impairment; temperature natural
304	Days Creek	Р	Y		А	Elevated levels of fecal coliform allow only partial support of the contact recreation use.	Т	Very minor effect on uses
601	Neches River Tidal	Р	Y		A	Fecal coliform densities are elevated throughout most of the segment causing partial support the contact recreation use.	Т	Very minor effect on uses
824	Elm Fork Trinity River Above Ray Roberts Lake	Р			A	In the lower eight miles, the contact recreation use is only partially supported due to elevated fecal coliform bacteria levels.	Т	Geographically limited and minor effect on uses; limited data set does not support the initial assessment of impairment
802	Trinity River Below Lake Livingston	N	Y		В	The aquatic life use is not supported in the lower 25 miles, because the mean dissolved cadmium concentration exceeds the chronic aquatic life criterion. The contact recreation use is only partially supported from US 59 to FM 787, and not supported from US 90 to the lower end, due to elevated fecal coliform bacteria levels.	М	Need more data on cadmium; fecal coliform has minor effect on uses and is geographically limited
805	Upper Trinity River	N	Y		В	The Texas Department of Health issued an aquatic life closure in January 1990, due to elevated levels of chlordane in fish tissue. The affected reach extends 19 miles from the upper limit of the segment to IH 20 downstream from Dallas. The aquatic life use is not supported from FM 85 to a point 25 miles downstream, because the mean dissolved zinc concentration exceeds the chronic aquatic life criterion. The contact recreation use is not supported through the entire segment, due to elevated fecal coliform bacteria levels.	М	Need more data on zinc; fecal coliform has minor effect on uses

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806	West Fork Trinity River Below Lake Worth	N	Y		H	The Texas Department of Health has issued aquatic life closures for three areas in the watershed: (1) a 23-mile reach of the West Fork Trinity River from the Clear Fork Trinity River confluence to the lower limit of the segment, in January 1990, due to elevated levels of chlordane in fish tissue; (2) Fosdic Lake, an unclassified 6-acre reservoir in Fort Worth, in April 1995, due to elevated levels of chlordane, PCBs, dieldrin, and DDE in fish tissue; and (3) Echo Lake, an unclassified 17-acre impoundment in Fort Worth, in December 1995, due to elevated levels of PCBs in fish tissue. The contact recreation use is only partially supported in the upper 17 miles, and not supported in the lower 16 miles, due to elevated fecal coliform bacteria levels.	М	Need to monitor chlordane contamination; fecal coliform has minor effect on uses
819	East Fork Trinity River	N	Y		I	The aquatic life use is not supported due to elevated dissolved cadmium concentrations. It is only partially supported based on depressed dissolved oxygen concentrations in a 6-mile reach from 2 miles upstream of Malloy Bridge Rd. to US 175. The contact recreation use is not supported due to elevated fecal coliform bacteria levels.	М	Need more data on cadmium; recent draft revision of WLE addresses DO; fecal coliform have minor effect on uses and is geographically limited
822	Elm Fork Trinity River Below Lewisville Lake	Ν	Y		F	The aquatic life use is not supported from SH 121 to 3 miles upstream of the mouth due to elevated concentrations of dissolved lead. The aquatic life use is only partially supported based on two other factors: depressed dissolved oxygen concentrations in the upper 9-mile reach, and elevated dissolved zinc concentrations from SH 21 to 3 miles upstream of the mouth. The contact recreation use is only partially supported in the extreme lower end due to elevated fecal coliform bacteria levels.	М	Need more data for zinc and lead; DO and fecal coliform have minor effects on uses and are geographically limited
1007	Houston Ship Channel/Buffalo Bayou Tidal	N	Y		I	A restricted consumption advisory for the general population and a no consumption advisory for children and women of child-bearing age have been issued by the Texas Department of Health due to elevated levels of dioxin in edible blue crabs and catfish tissue. Fourteen miles of the segment have been affected by these advisories. A paper mill is listed as the source of dioxin. Copper in water exceeded the chronic criteria in the 1990-1994 data set. However, metals data collected before 1992 may be misleading. More modern "super clean" sampling and better laboratory techniques provide much more dependable data. The latest metals data from the Houston Ship Channel indicate that only a few tributary sites may occasionally exceed the relevant criteria. TMDLs for metals have been in development for several years, and will continue based on the most reliable recent data.	М	TMDLs for copper and other metals will be developed soon; dioxin is being monitored
1014	Buffalo Bayou Above Tidal	N	Y		F	Elevated fecal coliform levels caused nonsupport of the contact recreation use.	М	Fecal coliform has moderate impact on recreational use; more study to determine source of impairment is recommended

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1017	Whiteoak Bayou Above Tidal	N	Y		В	Elevated fecal coliform bacteria levels cause nonsupport of the contact recreation use. This segment is impacted by both urban stormwater runoff, in addition to numerous municipal point source discharges.	М	Fecal coliform has moderate impact on recreational use; more study to determine source of impairment is recommended
801	Trinity River Tidal	Р	Y		В	The contact recreation use is only partially supported in the lower 7 miles, due to elevated fecal coliform bacteria levels.	Т	Minor effect on uses; geographically limited; limited data set does not support initial assessment of impairment
804	Trinity River Above Lake Livingston	N	Y		В	The aquatic life use is only partially supported from US 79 to 25 miles downstream due to depressed dissolved oxygen concentrations. The contact recreation use is only partially supported from US 79 to 25 miles downstream, and not supported in the upper 38 miles, due to elevated fecal coliform bacteria levels.	Т	DO and fecal coliform have minor effect on uses and are geographically limited
1010	Caney Creek	Р	Y		В	Moderately elevated fecal coliform caused partial support of contact recreation in the lower portion of the segment. The rest of the segment has no known water quality problems.	Т	Very minor effect on uses
1013	Buffalo Bayou Tidal	N	Y		В	Elevated fecal coliform bacteria caused nonsupport of the contact recreation use.	Т	Minor effect on use
1002	Lake Houston	N	Y		C	Fecal coliform levels were moderately elevated causing partial support of the contact recreation use. The dissolved oxygen criterion is partially supported in the lower third of the lake (near the dam). Elevated levels of diazinon in water exceeded the chronic criterion in the upper half of the lake (West and East Fork of the San Jacinto River arms). Elevated concentrations of lead and cadmium in water exceeded the chronic criteria in the lower half of the lake (near the dam). This caused nonsupport of the high aquatic life use in the entire segment. This segment is impacted by urban stormwater runoff.	М	Need more data on metals and diazinon; fecal coliform is closely monitored by local entities; episodic and geographically limited low DO has minor effect on uses
1005	Houston Ship Channel/San Jacinto River Tidal	N	Y	•	C	A restricted consumption advisory for the general population and a no consumption advisory for children and women of child-bearing age have been issued by the Texas Department of Health due to elevated levels of dioxin in blue crabs and catfish. Twelve miles of the segment have been affected by these advisories. A paper mill is listed as the source of dioxin. Fecal coliform levels are moderately elevated causing partial support of the noncontact recreation use. Nickel in water concentrations exceeded the chronic criterion in the 1990- 1994 data set, causing nonsupport for the high aquatic life use. However, metals data collected before 1992 may be misleading. More modern "super clean" sampling and better laboratory techniques provide much more dependable data. The latest metals data from the Houston Ship Channel indicate that only a few tributary sites may occasionally exceed the relevant criteria. TMDLs for metals have been in development for several years, and will continue based on the most reliable recent data.	М	TMDLs for nickel and other metals will be developed soon; fecal coliform has minor effect on uses

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1006	Houston Ship Channel Tidal	N	Y	•	С	A restricted consumption advisory for the general population and a no consumption advisory for children and women of child-bearing age have been issued by the Texas Department of Health due to elevated levels of dioxin in blue crabs and catfish. Six miles of the segment have been affected by these advisories. A paper mill is listed as the source of dioxin. Copper and nickel in water exceeded the chronic criteria in the 1990-1994 data set. However, metals data collected before 1992 may be misleading. More modern "super clean" sampling and better laboratory techniques provide much more dependable data. The latest metals data from the Houston Ship Channel indicate that only a few tributary sites may occasionally exceed the relevant criteria. TMDLs for metals have been in development for several years, and will continue based on the most reliable recent data. Patrick Bayou tributary (near Deer Park) is known to have water quality impairments associated with industrial and other discharges.	М	TMDLs for copper, nickel and other metals will be developed soon; water quality impairments in Patrick Bayou need more investigation
1008	Spring Creek	N	Y		C	Elevated fecal coliform bacteria levels cause nonsupport of the contact recreation use. Low dissolved oxygen levels caused partial support of the high aquatic life use.	М	Moderate impact due to fecal coliform, need to monitor situation for possible NPS and proper operation of wastewater treatment plants; episodic low DO has minor effect, and may be due to natural conditions
1009	Cypress Creek	N	Y		С	Elevated fecal coliform levels caused nonsupport of the contact recreation use.	М	Moderate impact due to fecal coliform, need to monitor situation for possible NPS and proper operation of wastewater treatment plants; draft TMDL for DO was recently prepared
1016	Greens Bayou Above Tidal	N	Y		C	Elevated fecal coliform bacteria levels caused nonsupport of the contact recreation use. This segment is impacted by both urban stormwater runoff, in addition to numerous municipal point source discharges.	М	Moderate impact due to fecal coliform, need to monitor situation for possible NPS and proper operation of wastewater treatment plants; TMDL for DO is in preparation

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1101	Clear Creek Tidal	N	Y		С	A fish and shellfish no consumption advisory was issued for the general population by the Texas Department of Health in November 1993 for Clear Creek. The affected area includes 8.3 miles of Segment 1101 (the section of Clear Creek upstream of Highway 3 in Galveston County) and all of Segment 1102. The advisory warns against consuming any fish or blue crabs taken from Clear Creek. Test results from fish caught in Clear Creek reveal the contaminants dichloroethane, trichloroethane, carbon disulfide, and chlordane in fish tissue. Possible sources of these contaminants include the former Brio Refinery Company (an USEPA Superfund site) and rainfall run-off. Due to elevated fecal coliform densities, the contact recreation use is not supported.	Μ	More data is needed to determine the extent and source of contact recreation impairment
1102	Clear Creek Above Tidal	N	Y		С	A fish and shellfish no consumption advisory was issued for the general population by the Texas Department of Health in November 1993 for Clear Creek. The affected area includes 8.3 miles of Segment 1101 (the section of Clear Creek upstream of Highway 3 in Galveston County) and all of Segment 1102. The advisory warns against consuming any fish or blue crabs taken from Clear Creek. Test results from fish caught in Clear Creek reveal the contaminants dichloroethane, trichloroethane, carbon disulfide, and chlordane in fish tissue. Possible sources of these contaminants include the former Brio Refinery Company (an USEPA Superfund site) and rainfall run-off. Due to elevated fecal coliform densities, the contact recreation use is not supported.	М	More data is needed to determine the extent and source of contact recreation impairment
1103	Dickinson Bayou Tidal	N	Y	●	C	Due to elevated fecal coliform densities, the contact recreation is not supported. Depressed dissolved oxygen levels cause partial support of the high aquatic life.	М	Extensive local interest; TNRCC is preparing to do a TMDL for DO
1104	Dickinson Bayou Above Tidal	N	Y	•	C	Due to elevated fecal coliform densities, the contact recreation use is not supported.	М	Extensive local interest; TNRCC is preparing to do a TMDL for DO, in conjunction with Segment 1103
1113	Armand Bayou Tidal	N	Y	•	C	Due to depressed dissolved oxygen levels in the upper portion of the segment the aquatic life use is not supported. Elevated fecal coliform densities cause nonsupport of the contact recreation use.	М	Probable subject of pending contract for a TMDL to address dissolved oxygen concerns
701	Taylor Bayou Above Tidal	N	Y		С	Due to depressed dissolved oxygen concentrations and elevated levels of fecal coliform bacteria, the intermediate aquatic life, and contact recreation uses are not met in the lower 25 miles of the segment. Sluggish flow, municipal and industrial discharges, as well as agricultural activities likely contribute to the problem.	L	Minor effect on uses; primarily due to natural conditions
902	Cedar Bayou Above Tidal	N			C	Due to depressed dissolved oxygen concentrations and elevated levels of fecal coliform bacteria, the high aquatic life and contact recreation uses are not met in the lower 18 miles of the segment.	L	Recent draft WLE addressed DO, remaining impairment primarily due to hydraulic conditions; fecal coliform has minor effect on use

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1107	Chocolate Bayou Tidal	Р			C	Due to elevated fecal coliform densities, the contact recreation use is partially supported.	L	Minor effect; limited data do not support initial assessment of impairment
1108	Chocolate Bayou Above Tidal	N	Y		С	Due to elevated fecal coliform densities, the contact recreation use is not supported. The average sulfate level exceeds the segment criterion.	L	Minor effect on uses
1110	Oyster Creek Above Tidal	N	Y		C	Due to depressed dissolved oxygen and elevated fecal coliform densities southwest of the City of Angleton in Brazoria County, part of the segment is not supporting aquatic life and contact recreation uses.	L	Minor effects on uses; low DO is due to hydraulic modifications or natural conditions
2412	Sabine Lake	N	Y		C	Due to elevated fecal coliform densities, the oyster waters use is not supported. Time, extent, and area of actual shellfish closures are based on criteria administered by the Texas Department of Health.	L	Minor effect on uses; limited data set does not support initial assessment of impairment
2426	Tabbs Bay	N	Y		С	Tabbs Bay has a restricted consumption advisory for the general population, and a no consumption advisory for children and women of child bearing age. These advisories were issued by the Texas Department of Health for blue crabs and catfish due to elevated levels of dioxin in tissue. Elevated fecal coliform levels cause nonsupport of the contact recreation use. Other water quality standards and designated uses were supported.	L	Minor effect on uses
901	Cedar Bayou Tidal	N			C	Due to elevated levels of fecal coliform bacteria, the contact recreation use is not supported in the lower ten miles of the segment.	Т	Minor effect on uses; limited data set does not support initial assessment of impairment
1001	San Jacinto River Tidal	Р	Y		C	Fecal coliform levels were moderately elevated causing partial support of the contact recreation use in the segment. Elevated dissolved silver concentrations exceeded the acute criterion causing partial support of the high aquatic life use.	Τ	Control program for silver is in place; fecal coliform has minor effect on uses, and limited data set does not support initial assessment of impairment
1003	East Fork San Jacinto River	Р	Y		C	Fecal coliform levels were moderately elevated causing partial support of the contact recreation use in the lower 20 miles of the segment. All other standards and uses are supported. The lower twenty miles of the segment are impacted by urban stormwater runoff.	Т	Minor effect on uses
1004	West Fork San Jacinto River	Р	Y		C	Fecal coliform levels are moderately elevated causing partial support of the contact recreation use for the entire segment.	Т	Minor effect on uses
1105	Bastrop Bayou Tidal	N			С	Due to elevated fecal coliform densities, the contact recreation use is not supported.	Т	Limited geographic extent
1109	Oyster Creek Tidal	N	Y		C	Due to elevated fecal coliform densities, the contact recreation use is not supported.	Т	Minor effect; limited data do not support initial assessment of impairment

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1210	Lake Mexia	N	Y		D	Approximately 300 acres of the reservoir in the upper portion does not support the high aquatic life use due to depressed dissolved oxygen levels.	М	Cause unknown, more data needed
1218	Nolan Creek/South Nolan Creek	N	Y		D	Elevated levels of fecal coliform bacteria cause nonsupport of the contact recreation use. An intensive monitoring survey conducted by the Brazos River Authority is planned for 1996 to determine the source of the elevated fecal coliform bacteria.	М	Potentially correctable problem, more data needed
1221	Leon River Below Proctor Lake	N	Y		D	Elevated fecal coliform densities cause nonsupport of the contact recreation use in the mid and lower portion downstream of the South Leon River. Nonpoint source loading from confined animal feeding is becoming a concern to this segment.	М	Potentially correctable, more data needed
1226	North Bosque River	N	Υ	•	D	Due to elevated fecal coliform levels the contact recreation use is not supported throughout the segment. Nitrite plus nitrate nitrogen, ortho and total phosphorus greater than the screening levels occur in the upper portion of the segment in the area of Highway 6 and the Iredale area. Excessive nutrient levels also are occurring in the lower portion near the City of Clifton. The excessive nutrient levels are entering the river from tributary watersheds. The elevated nutrients are contributing to excessive plankton growth. Nonpoint source loadings are the most serious threat to the segment. The Texas Institute for Applied Environmental Research (TIAER) has monitored agricultural nonpoint source runoff since 1991. TIAER, Brazos River Authority, TNRCC are participating in intensive monitoring surveys to determine nonpoint source loading.	Μ	Major local concern and controversy; Local studies will support control programs in near future
1242	Brazos River Below Whitney Lake	N	Y		D	Elevated fecal coliform densities cause nonsupport of the contact recreation use in the portion of the segment from the City of Marlin to approximately FM 979 crossing east of Cameron.	М	Potentially controllable, but more data needed
1245	Upper Oyster Creek	N	Y		D	Depressed dissolved oxygen levels cause nonsupport of the intermediate aquatic life use in the area from the Texas Department of Corrections Jester Unit downstream to the confluence of Stafford Run. Elevated levels of fecal coliform bacteria allow only partial support of the contact recreation use in the area from The Texas Department of Corrections Jester Unit downstream to the end of the segment. Dissolved oxygen levels have been historically depressed in the segment due to a complex series of diversion dams, thermal loading, oxygen demanding wastes, high sediment oxygen demand, low reaeration rates, and nearly stagnant velocities. One of the major factors contributing to the low dissolved oxygen levels appears to be point source discharges which cause increases in ambient water temperature and oxygen demanding wastes. In addition to point source loadings, Upper Oyster Creek is also on the statewide list for nonpoint source impacted waters due to urban stormwater runoff. A draft wasteload evaluation, based on intensive survey data, indicates that dissolved oxygen criteria supportive of the intermediate use should be attainable at the recommended effluent limits (advanced treatment with nitrification).	M	Some controls on point source discharges have been implemented, but monitoring is needed to determine if more are needed or appropriate

Segment Number	Segment Name	Standards Support	On NPS List	Targeted	Basin Group	Segment	Priority	Reasons
1255	Upper North Bosque River	N	Y	•	D	Elevated fecal coliform bacteria and nutrient levels occur in the headwater of the river upstream of the City of Stephenville. The elevated fecal coliform bacteria levels cause nonsupport of contact recreation use. Depressed dissolved oxygen levels in the segment cause partial support of its intermediate aquatic life use. Average chloride, sulfate and total dissolved solids levels exceed segment criteria. Nitrogen and phosphorus levels are elevated and contribute to excessive phytoplankton and attached algal growths. A wasteload evaluation conducted on the segment requires advanced waste treatment for the attainment of stream standards. Agricultural operations are the major contributor to nonpoint source pollution. The majority of the agricultural operations are located in the headwater region of the North Bosque River in Erath County. The Texas Institute for Applied Environmental Research (TIAER) has monitored agricultural nonpoint source runoff in the segment since 1991. TIAER, the Brazos River Authority, TNRCC are conducting intensive monitoring surveys in the Lake Waco watershed to determine nonpoint source loading.	М	Major local concern and controversy; Local studies will support control programs in near future
1301	San Bernard River Tidal	N	Y		D	The segment is partially supporting the high quality aquatic life use due to depressed dissolved oxygen levels, and is not supporting the contact recreation use due to elevated levels of fecal coliform bacteria.	М	More data needed; DO conditions may be natural
1430	Barton Creek	N	Y		D	This segment does not support the contact recreation use due to high fecal coliform bacteria concentrations over its entire length. Sources include runoff from pasture in the upper part of the segment, and urban development in the lower part of the segment, and an abundant water fowl population that frequents the lower mile, immediately downstream of Barton Springs Pool.	М	High contact recreational use; more data needed to define sources
2425	Clear Lake	N	Y		D	The upper part of the segment has high fecal coliform densities, and does not support the contact recreation use. The lower portion has moderately elevated fecal coliform levels, and partially supports the contact recreation use.	М	Moderate impairment of contact recreation use; need to continue investigation to determine extent and source
1233	Hubbard Creek Reservoir	X	Y		D	Average sulfate levels greater than the reservoir criteria occur in the Big Sandy Creek arm of the reservoir.	L	Natural cause, uncontrollable, minor effect on uses
1239	White River	X			D	Average chloride, sulfate and total dissolved solids exceed segment criteria.	L	Natural cause,uncontrollable, minor effect
1240	White River Lake	X	Y		D	Average total dissolved solid levels exceed the segment criterion.	L	Natural cause,uncontrollable, minor effect
1304	Caney Creek Tidal	N	Y		D	Elevated fecal coliform bacteria levels cause nonsupport of the contact recreation use.	L	Minor effect on use; possibly natural
1427	Onion Creek	Р	Y		D	Fecal coliform bacteria levels exceeding the segment criteria have occurred throughout the segment, and this segment is only partially supporting the contact recreation use. The average level of total dissolved solids exceeds the segment criterion.	L	Very minor effect from both total dissolved solids and fecal coliform; very stringent effluent limits in place

Segment Number	Segment Name	Standards Support	On NPS List	Targeted	Basin Group	Segment Summary	Priority	Reasons
2421	Upper Galveston Bay	N			D	This segment, from Red Bluff Point to Five Mile Cut Marker to Houston Point, north to Morgan's Point has a restricted consumption advisory for the general population, and a no consumption advisory for children and women of child bearing age. These advisories were issued by the Texas Department of Health for blue crabs and catfish due to elevated levels of dioxin in tissue. Twenty-two square miles of Upper Galveston Bay has been affected. The dioxin source is listed as a paper mill. Based on the TNRCC criterion, the oyster water use was partially supported due to moderately elevated fecal coliform levels throughout the bay. Time, extent and area of actual shellfish closures are based on criteria administered by the Texas Department of Health. Other water quality standards and designated uses were supported.	L	Continue to monitor dioxin; fecal coliform has minor effect on uses and impairment is geographically limited
2424	West Bay	Р	Y		D	Based on the TNRCC criterion, the oyster water use was partially supported due to moderately elevated fecal coliform levels throughout the bay. Time, extent and area of actual shellfish closures are based on criteria administered by the Texas Department of Health. Other water quality standards and designated uses were supported.	L	Minor effect on uses, and geographically limited
2432	Chocolate Bay	Р			D	Based on the TNRCC criterion, the oyster water use is partially supported due to moderately elevated fecal coliform levels throughout the bay. Time, extent and area of actual shellfish closures are based on criteria administered by the Texas Department of Health. All other water quality standards and uses are supported.	L	Minor effect on uses; limited data set does not support initial assessment of impairment
2433	Bastrop Bay/Oyster Lake	Р			D	Based on the TNRCC criterion, the oyster water use is partially supported due to moderately elevated fecal coliform levels throughout the bay. Time, extent and area of actual shellfish closures are based on criteria administered by the Texas Department of Health. All other water quality standards and uses are supported.	L	Minor effect on uses
2435	Drum Bay	Р			D	Based on the TNRCC criterion, the oyster water use is partially supported due to moderately elevated fecal coliform levels throughout the bay. Time, extent and area of actual shellfish closures are based on criteria administered by the Texas Department of Health. All other water quality standards and uses were supported.	L	Minor effect on uses
2439	Lower Galveston Bay	Р	Y		D	Based on the TNRCC criterion, the oyster water use is partially supported due to moderately elevated fecal coliform levels throughout the bay. Time, extent and area of actual shellfish closures are based on criteria administered by the Texas Department of Health. All other water quality standards and uses are supported.	L	Impairment is episodic, geographically limited, and has minor effect on uses
1201	Brazos River Tidal	N	Y		D	A restricted consumption advisory for the general population and a no consumption advisory for children and women of child bearing age were issued by the Texas Department of Health September 1990 due to elevated dioxin levels in fish tissue. The affected reach is south of FM 521 to the mouth of the Brazos River in Brazoria County. Elevated fecal coliform bacteria levels cause partial support of the contact recreation use in the lower most seven miles of the segment.	Т	Control program for dioxin already in place; fecal coliform has very minor effect on uses

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1202	Brazos River Below Navasota River	N	Y		D	Elevated fecal coliform densities cause nonsupport of the contact recreation use in the segment.	Т	Minor effect on uses; contact recreation use is minimal
1208	Brazos River Above Possum Kingdom Lake	N			D	Elevated fecal coliform levels cause nonsupport of the contact recreation use for approximately 25 miles downstream of the Clear Fork of the Brazos confluence.	Т	Geographically limited effects; limited data set does not support the initial assessment of impairment
1213	Little River	N	Y		D	Elevated levels of fecal coliform bacteria cause nonsupport of the contact recreation use from the City of Cameron downstream to the end of the segment.	Т	Minor effect, possibly natural; limited access for contact recreation
1241	Double Mountain Fork Brazos River	Р	Y		D	Elevated fecal coliform densities cause partial support of the contact recreation use.	Т	Minor effect on uses, possibly natural
1421	Concho River	N	Y		D	Wide diel dissolved oxygen variations and elevated levels of chlorophyll <i>a</i> above the screening levels occur during the summer months in the City of San Angelo river impoundments. The North Concho Fork below Lake O.C. Fisher in San Angelo is partially supporting the aquatic life use due to low dissolved oxygen levels and not supporting the contact recreation use due to high levels of fecal coliform.	Т	Fecal coliform has minor effect on use; DO was addressed by draft WLE, remaining effect is mostly due to hydraulic modifications
1428	Colorado River Below Town Lake	N	Y		D	The contact recreation use is not supported below Austin due to high levels of fecal coliform.	Т	Fecal coliform has minor effect on uses
1429	Town Lake	N	Y		D	Fish and sediments collected from Town Lake have elevated levels of chlordane. The source of chlordane is urban nonpoint source runoff. The Texas Department of Health has issued a restricted consumption advisory for the general population. This segment is not supporting the contact recreation use due to high levels of fecal coliform.	Т	Minor effects on use; swimming is prohibited by City law due to dangerous currents; NPS demonstration projects have been implemented by City
1434	Colorado River Above La Grange	Р			D	This is a new segment created by dividing the Colorado River segment downstream of Austin. The contact recreation use is partially supported due to high levels of fecal coliform immediately below Bastrop and Smithville.	Т	Minor effect; limited data set does not support initial assessment of impairment use
1602	Lavaca River Above Tidal	N	Y		D	This segment is not supporting its contact recreation use due to elevated levels of fecal coliform bacteria measured throughout the segment. The Texas Railroad Commission has identified oil field wastes as a problem in the segment (Summary Report: Regional Assessments of Water Quality Pursuant to the Texas Clean Rivers Act, Senate Bill 818, TNRCC 1992).	Т	Fecal coliform has minor effect on use, may be natural

Segment Number	Segment Name	Standards Support	On NPS List	Targeted	Basin Group	Segment Summary	Priority	Reasons
2427	San Jacinto Bay	N	Y		D	San Jacinto Bay has a restricted consumption advisory for the general population, and a no consumption advisory for children and women of child bearing age. These advisories were issued by the Texas Department of Health for blue crabs and catfish due to elevated levels of dioxin in tissue. Fecal coliform levels are moderately elevated causing the contact recreation use to be partially supported. Other water quality standards and designated uses were supported.	Т	Minor effect on uses
1411	E.V. Spence Reservoir	X			E	Average levels of sulfate and total dissolved solids exceed segment criteria. Excessive dissolved solids, especially chloride, are attributed to brine seepage from abandoned and improperly capped or cased oil wells located along the Colorado River (Segment 1412) and tributaries immediately downstream from Lake J.B. Thomas.	М	Salinity adversely affects water supply use; caused by historical oil field practices and may be amenable to TMDL controls.
1412	Colorado River Below Lake JB Thomas	Р	Y		Е	The lower 25 miles of this segment is partially supporting the contact recreation use due to high levels of fecal coliform. High salinity in this segment, although not in excess of numeric standards, contributes to water use problems in Segment 1411 Lake E. V. Spence downstream. Excessive salinity levels are attributed to historical oil field activities such as abandoned drill holes and brine pits, located in the upper reaches of this segment and its tributaries.	М	Minor effect on contact recreation, as limited data set does not support initial assessment of impairment; should be considered in salinity management activities for Segment 1412.
1502	Tres Palacios Creek Above Tidal	N	Y		E	Elevated fecal coliform levels contribute to nonsupport of the contact recreation use in the segment. The segment criterion for dissolved oxygen was not met causing nonsupport of the high aquatic life use.	М	Needs more investigation to determine extent and sources of impairments
1903	Medina River Below Medina Div. Lake	N	Y		E	Slight degradation occurs in the lower 5.5 miles due to industrial and domestic wastewater effluents and urban runoff. In that reach, the aquatic life use is not supported due to elevated diazinon concentrations. In addition, the contact recreation use is only partially supported due to elevated fecal coliform bacteria levels.	М	Need more data on diazinon; fecal coliform has minor effect on uses
1906	Lower Leon Creek	N	Y		E	The aquatic life use is not supported in the lower 16 miles due to elevated dissolved cadmium concentrations. The contact recreation use is not supported in the upper 21 miles due to elevated fecal coliform bacteria levels.	М	Need data on cadmium; fecal coliform has minor effect on uses
1910	Salado Creek	N	Y		E	The aquatic life use is not supported in a 2-mile reach from 1 mile downstream of Rigsby Ave. to Southcross Blvd., and only partially supported in a 5-mile reach from NE Loop 410 to Pershing Rd., due to depressed dissolved oxygen concentrations. It is not supported in the lower 35 miles based on elevated diazinon concentrations. In the lower half of the segment, the contact recreation use is not supported due to elevated fecal coliform bacteria levels.	М	Need more data on diazinon and fecal coliform to determine extent and sources; DO effects are geographically limited and have been addressed by a draft WLE

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1911	Upper San Antonio River	N	Y		E	The aquatic life use is only partially supported through a 25-mile reach beginning at the Medina River confluence based on elevated diazinon concentrations. The contact recreation use is not supported from 1 mile upstream of S. Alamo St. to 2 miles upstream of Blue Wing Rd. (12 miles), and only partially supported in the upper 5 miles, in a 2.5-mile reach from 2 miles downstream of Blue Wing Rd. to 0.5 mile downstream of the Medina River confluence, and in the lower 7 miles, due to elevated fecal coliform bacteria levels.	М	Need more data on diazinon; fecal coliform impairment is geographically limited
2106	Nueces/Lower Frio River	N	Y		E	Elevated fecal coliform levels cause nonsupport of the contact recreation use.	М	Need more data to determine extent and source of impairment
2107	Atascosa River	N	Y		Е	Elevated fecal coliform levels cause nonsupport of the contact recreation use in this reach. Dissolved oxygen levels are below the criterion for high quality aquatic life. Field observations suggest that low DO is not associated with discharges, but occurs as pools stagnate during intermittent flow conditions.	М	Need more data to determine extent and sources of impairments
2201	Arroyo Colorado Tidal	N	Y		Е	The aquatic life use is not supported in the upper 8.5 miles due to depressed dissolved oxygen concentrations. Comments received from the Texas Parks and Wildlife Department suggest that depressed dissolved oxygen impairs aquatic life in the upper 16 miles of the segment, and point out that the segment provides important habitat for many economically, ecologically, and recreationally valuable species. TNRCC and other State agencies are beginning cooperative studies of better management practices to reduce or control both point and nonpoint sources, under the Federal Section 319 program.	М	Point source control program for DO is in place, need to monitor system response; as results of the cooperative management practice studies become available, relevant programs will be adjusted.
2202	Arroyo Colorado Above Tidal	N	Y		E	The Texas Department of Health (TDH) issued an all fish restricted consumption advisory for the general population in September 1980, due to elevated levels of chlordane, toxaphene, and DDE in fish tissue. The advisory, which applies to the entire segment, recommends that consumption be limited to one meal per month for any type of fish. TDH issued an aquatic life closure for Donna Reservoir, an unclassified, 333 acre lake which stores water pumped from the Rio Grande, in February 1994, due to elevated levels of PCBs in fish tissue. The closure applies to the entire reservoir and the canal system that connects it to the Rio Grande. The aquatic life use is only partially supported in the lower four miles due to elevated concentrations of nitrobenzene, isophorone, and bis(2-ethylhexyl) phthalate in water. The contact recreation use is not supported through the entire segment due to elevated fecal coliform bacteria levels. TNRCC and other State agencies are beginning cooperative studies of better management practices to reduce or control both point and nonpoint sources, under the Federal Section 319 program.	М	Need to monitor all toxic substances of concern to assess trends; need more fecal coliform data to determine extent and source of impairment; as results of the cooperative management practice studies become available, relevant programs will be adjusted.

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2304	Rio Grande Below Amistad Reservoir	N	Y		E	Elevated fecal coliform bacteria levels cause nonsupport of the contact recreation use. Major sources of fecal coliform are the cities of Del Rio/Ciudad Acuña, Eagle Pass/Piedras Negras, and Laredo/Nuevo Laredo. The United States and Mexico are nearing completion on a wastewater collection system and treatment facility in Nuevo Laredo. This segment was included in the multi phase Binational Rio Grande Toxic Substance Study (see Published Studies). All other water quality standards and uses are supported.	М	International efforts to correct the apparent sources of impairment are underway and will continue
2453	Lavaca Bay/Chocolate Bay	N	Y		E	The Texas Department of Health has issued an aquatic life closure for 2.5 square miles of the segment due to elevated mercury levels in finfish and crabs. Mercury contamination is residual from historical sources. Due to elevated fecal coliform densities, the oyster waters use is not supported in Chocolate Bay and the Eastern portion of upper Lavaca Bay near the mouth of the Lavaca River. Throughout most of the remainder of Lavaca Bay, the oyster waters use is partially supported due to elevated fecal coliform densities. Time, extent, and area of actual shellfish closures are based on criteria administered by the Texas Department of Health. Low dissolved oxygen levels in the Red Bluff Channel contribute to partial support of the exceptional aquatic life use.	М	An extensive monitoring program is in effect and will continue; Partial support designation for dissolved oxygen was based on the water column mean being slightly below the criterion on August 10, 1993, which is only 1 of 7 sampling events screened, and is not considered truly indicative of a problem.
2454	Cox Bay	N			Е	The Texas Department of Health has issued an aquatic life closure for 1.7 square miles of the segment due to elevated mercury levels in fish and crabs. Due to elevated fecal coliform densities, the oyster waters use is partially supported in the bay. Time, extent, and area of actual shellfish closures are based on criteria administered by the Texas Department of Health.	М	An extensive monitoring program is in effect and will continue
2484	Corpus Christi Inner Harbor	N			Е	The aquatic life use is not supported, as the mean dissolved copper concentration exceeds the chronic criterion. Depressed dissolved oxygen levels in the Avery and Viola Turning Basins cause partial support of the intermediate aquatic life use.	М	Need more data for copper;low DO does not significantly impair uses, and is largely due to hydraulic conditions
2485	Oso Bay	N	Y		E	Depressed dissolved oxygen levels in the lower portion of the bay contribute to partial support of the exceptional aquatic life use. Due to elevated fecal coliform densities, the oyster waters use is not supported and the contact recreation use is partially supported. Time, extent, and area of actual shellfish closures are based on crtieria administered by the Texas Department of Health.	М	Need more data to determine extent and causes of impairment; studies and analyses are underway or pending
1403	Lake Austin	Р	Y		E	This segment receives low oxygen bottom water from Lake Travis during the summer months and dissolved oxygen levels are often below the criteria in the upper parts of the segments. The first few miles below the dam are partially supporting the aquatic life use due to these low oxygen events	L	Minor effect on uses; due to hydraulic modification and manipulation of system

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1501	Tres Palacios Creek Tidal	N	Y		E	Elevated fecal coliform levels contribute to nonsupport of the contact recreation use in the segment. The segment criterion for dissolved oxygen was not met causing nonsupport of the exceptional aquatic life use.	L	Minor effect from low DO, probably due to natural conditions; limited fecal coliform data set does not support initial assessment of impairment
2004	Aransas River Above Tidal	N			E	Elevated fecal coliform levels cause nonsupport of the contact recreation use for the lower 25 miles of the segment. The average level of total dissolved solids levels is elevated above the standard criterion in the lower part of the segment.	L	Minor effect on use; possibly natural due to tidal salt-wedge intrusion
2307	Rio Grande Below Riverside Diversion	Р	Y		E	The upper third of the segment is partially supporting the contact recreation use due to elevated fecal coliform levels. Average chloride, sulfate and total dissolved solids concentrations exceed the segment criteria. River flow in the segment is reduced due to irrigation withdrawls in the El Paso area and evaporation throughout the segment. This segment was included in the multi phase Binational Rio Grande Toxic Substance Study (see Published Studies).	L	Minor effects on uses
2451	Matagorda Bay/Powderhorn Lake	N	Y		E	Due to elevated fecal coliform densities, the oyster waters use is not supported at two sites on the east side of Matagorda Bay. Elevated fecal coliform densities also contribute to partial support of the oyster waters use in Powderhorn Lake and approximately 40 percent of Matagorda Bay. Time, extent, and area of actual shellfish closurers are based on criteria administered by the Texas Department of Health.	L	Minor effect on uses, and geographically limited
2473	St. Charles Bay	Р	Y		E	Due to elevated fecal coliform densities, the oyster waters use is partially supported in the bay. Time, extent, and area of actual shellfish closures are based on criteria administered by the Texas Department of Health.	L	Minor effect on uses
2482	Nueces Bay	N	Y		E	Due to elevated fecal coliform densities, the oyster waters use is not supported in an isolated area near White's Point and is only partially supported throughout most of the rest of the bay.	L	Minor effect on uses
1401	Colorado River Tidal	Р	Y		E	This segment is partially supporting the contact recreation use due to elevated fecal coliform bacteria levels.	Т	Minor effect; limited data set does not support initial assessment of impairment
1402	Colorado River Below La Grange	Р	Y		E	This segment is partially supporting contact recreation use due to elevated fecal coliform bacteria levels.	Т	Minor effect; limited data set does not support initial assessment of impairment
1414	Pedernales River	N	Y		E	This segment is only partially supporting the aquatic life use downstream of the confluence with Barons Creek below Fredricksburg due to depressed dissolved oxygen levels during summertime low flow conditions. The contact recreation use is not supported in the lower part of the segment due to high levels of fecal coliform.	Т	WLE has addressed DO; fecal coliform has minor effect on uses

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1415	Llano River	Р	Y		E	The contact recreation use is partially supported due to high fecal coliform levels in the lower part of the segment below Llano.	Т	Minor effect; limited data set does not support initial assessment of impairment
1803	Guadalupe River Below San Marcos River	Р			E	Due to elevated levels of fecal coliform bacteria, the contact recreation use is partially supported in a five mile stretch of the segment around the U.S. Highway 59 bridge in Victoria County.	Т	Very minor effect on uses
1808	Lower San Marcos River	Р			E	Due to elevated levels of fecal coliform bacteria, the contact recreation use is partially supported in a 50 mile stretch in the upper end of the segment.	Т	Limited data set does not support initial assessment of impairment
1814	Upper San Marcos River	Р			E	Due to elevated levels of fecal coliform bacteria, the contact recreation use is partially supported in the segment.	Т	Minor effect; limited data set does not support initial assessment of impairment
1912	Medio Creek	Р			E	The contact recreation use is only partially supported due to elevated fecal coliform bacteria levels.	Т	Minor effect; limited data set does not support initial assessment of impairment
2002	Mission River Above Tidal	N	Y		E	Elevated levels of fecal coliform cause nonsupport of the contact recreation use in this segment.	Т	Minor effect on use; possibly natural
2102	Nueces River Below Lk Corpus Christi	Р	Y		E	Elevated fecal coliform levels cause partial support of the contact recreation use.	Т	Minor effect; limited data set does not support initial assessment of impairment
2104	Nueces River Above Frio River	Р			E	Elevated fecal coliform levels cause partial support of the contact recreation use in the lower reaches of the segment.	Т	Minor effect; limited data set does not support initial assessment of impairment
2116	Choke Canyon Reservoir	N			E	Elevated levels of fecal coliform cause nonsupport of the contact recreation use in the upper reaches of the resorvoir. The source of the fecal coliform bacteria appears to be storm water runoff.	Т	Minor effect on use; caused by uncontrollable nonpoint sources
2117	Frio River Above Choke Canyon Res	N	Y		E	Elevated fecal coliform levels cause nonsupport of contact recreation use. The source of fecal coliforms appears to be storm water runoff.	Т	Minor effect on use; caused by uncontrollable nonpoint sources
2301	Rio Grande Tidal	Р	Y		E	Fecal coliform levels are moderately elevated causing partial support of the contact recreation use. All other water quality standards and uses are supported.	Т	Minor effect; limited data set does not support initial assessment of impairment
2302	Rio Grande Below Falcon Reservoir	N	Y		E	Elevated fecal coliform levels cause nonsupport of the contact recreation use in the segment. All other uses and water quality standards are supported. This segment was included in the multi phase Binational Rio Grande Toxic Substance Study (see Published Studies).	Т	Minor effect on uses

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2310	Lower Pecos River	X	X		E	Average chloride, sulfate and total dissolved solids levels exceed the segment criteria. Natural contributions of salts from the soil, as well as saline groundwater seeps and springs contribute to these elevated levels.	Т	Minor effect on uses; caused by natural conditions
2314	Rio Grande Above International Dam	Р	Y		E	Elevated fecal coliform levels cause partial support of the contact recreation use. All other water quality standards and uses are supported. This segment was included in the multi phase Binational Rio Grande Toxic Substance Study (see Published Studies).	Т	Minor effect on uses
2455	Keller Bay	Р			E	Due to elevated fecal coliform densities, the oyster waters use is partially supported throughout most of the bay. Time, extent, and area of actual shellfish closures are based on criteria administered by the Texas Department of Health.	Т	Very minor effect on uses
2456	Carancahua Bay	N	Y		E	Due to elevated fecal coliform densities, the oyster waters use is not supported in the extreme upper portion of the bay and is only partially supported in the upper one third of the bay. Time, extent, and area of actual shellfish closures are based on criteria administered by the Texas Department of Health.	Т	Minor effect on uses; limited geographic extent
2462	San Antonio Bay/Hynes Bay/Guadalupe Bay	N	Х		E	Due to elevated fecal coliform densities, the oyster waters use in the extreme upper portion of San Antonio Bay is not supported and is only partially supported in the upper third of the bay. Time, extent, and area of actual shellfish closures are based on criteria administered by the Texas Department of Health.	Т	Minor effect on uses, geographically limited extent

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