

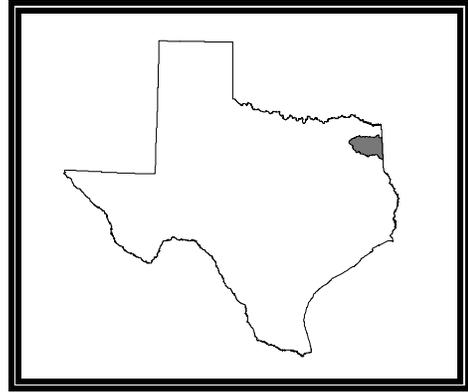
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Basin 04

Cypress Creek



Cypress Creek Basin Narrative Summary

Located in northeast Texas, Cypress Creek originates in Hopkins County and flows southeast to Caddo Lake on the Texas-Louisiana state line. The total basin drainage area in Texas is 2,812 square miles.

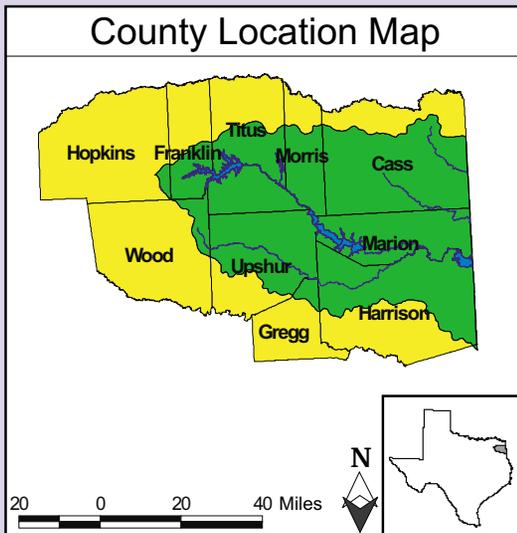
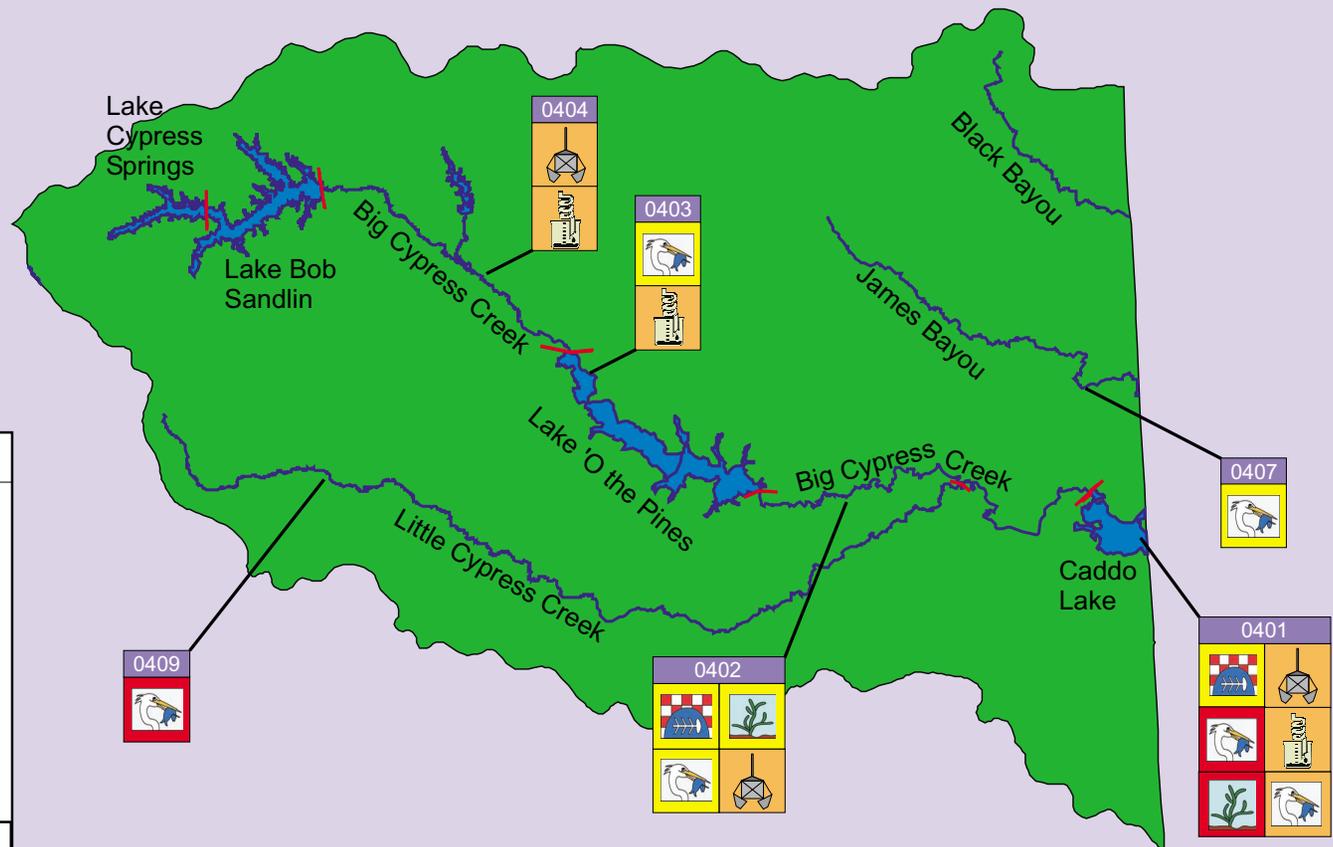
The economy of the area is based on agriculture, paper and wood products, and steel production. Lignite and iron ore mining and oil and gas production are mineral activities occurring in the basin.

The Cypress River Basin has been divided into nine segments which consist of 181 stream miles and four major reservoirs that encompass 58,394 acres. Fifty-one surface water monitoring stations are maintained in the basin. Major tributaries to Cypress Creek are Black Bayou, James (Jims) Bayou, and Little Cypress Creek.

Streams in the Cypress Basin periodically exhibit low dissolved oxygen concentrations. Many of the streams in this basin have sluggish flow characteristics, receive significant natural organic loads, and are heavily shaded by riparian tree cover. The discharge of treated domestic and industrial wastewaters compound these natural problems in some streams. The contact recreation use is supported in all water bodies except one. The concentration of toxic substances in sediment are a concern in five segments. Elevated concentrations of nutrients are a concern in four water bodies in the basin.

The Texas Department of Health (TDH) has issued restricted-consumption advisories for Caddo Lake, Big Cypress Creek below Lake O' the Pines, and a portion of Black Cypress Bayou known as Pruitt Lake due to elevated levels of mercury in fish tissue. The advisories apply to largemouth bass and freshwater drum in Caddo Lake and Big Cypress Creek and to all fish in Pruitt Lake. TDH has also issued a restricted-consumption advisory for Welsh Reservoir due to elevated levels of selenium in fish tissue. The advisory applies to all fish.

Cypress River Basin Identified Water Quality Issues

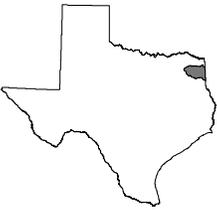


Cypress River Basin Graphical Summary

Basin Map	Water Bodies									
	Segment 0401 Caddo Lake	Segment 0401A Harrison Bayou	Segment 0402 Big Cypress Creek Below L. O' Pines	Segment 0402A Black Cypress Bayou	Segment 0403 Lake O' Pines	Segment 0404 Big Cypress Creek Below L. Bob Sandlin	Segment 0404A Ellison Creek Reservoir	Segment 0404B Tankersley Creek	Segment 0404C Hart Creek	Segment 0404D Welsh Reservoir
DESIGNATED USE SUPPORT										
Contact Recreation	S	NA	S	NA	S	S	NA	N	NA	NA
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Public Water Supply	S	S	S	X	S	X	X	X	X	X
Fish Consumption										
Human Health	S	NA	S	NA	S	NA	S	NA	NA	NA
Advisories/Closures	P	NA	P	P	NA	NA	NA	NA	NA	N
Aquatic Life										
Dissolved Oxygen (Grab)	N	P	P	N	P	S	NA	S	S	NA
Dissolved Oxygen (24-Hour)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals in Water	S	NA	S	S	S	S	S	NA	NA	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	S	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Macrobenthos	NA	NA	NA	NA	NA	S	NA	NA	NA	NA
Fish	NA	NA	NA	NA	NA	S	NA	NA	NA	NA
GENERAL USE SUPPORT										
Water Temperature	S	X	S	X	S	S	X	X	X	X
pH	N	X	P	X	S	S	X	X	X	X
Chloride	S	X	S	X	S	S	X	X	X	X
Sulfate	S	X	S	X	S	S	X	X	X	X
Total Dissolved Solids	N	X	S	X	S	S	X	X	X	X

S = Support; P = Partial Support; N = Nonsupport; T = Threatened; NC = No Concern; C = Concern; NA = Not Assessed; X = Not Applicable

Cypress River Basin Graphical Summary (Continued)

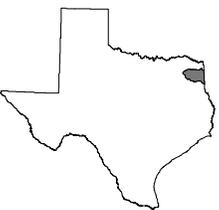
Basin Map	Water Bodies									
	Segment 0401 Caddo Lake	Segment 0401A Harrison Bayou	Segment 0402 Big Cypress Creek Below L. O' Pines	Segment 0402A Black Cypress Bayou	Segment 0403 Lake O' Pines	Segment 0404 Big Cypress Creek Below L. Bob Sandlin	Segment 0404A Ellison Creek Reservoir	Segment 0404B Tankersley Creek	Segment 0404C Hart Creek	Segment 0404D Welsh Reservoir
										
WATER QUALITY CONCERNS										
Contact Recreation	X	NA	X	NA	X	X	NA	X	NA	NA
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Fish Tissue	NC	NA	NA	NC	NA	NA	NC	NA	NA	NA
Sediment	C	NA	C	C	NA	C	C	NA	NA	NA
Narrative	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Nutrient Enrichment										
Ammonia Nitrogen	C	NA	NC	NC	C	NC	NA	C	NA	NA
Nitrite + Nitrate Nitrogen	NC	NA	NC	NC	C	C	NA	C	NA	NA
Orthophosphorus	NC	NA	NC	NC	NC	C	NA	C	NA	NA
Total Phosphorus	NC	NA	NC	NC	C	C	NA	C	NA	NA
Chlorophyll <i>a</i>	NC	NA	NC	NC	NC	NC	NA	NC	NA	NA
Public Water Supply										
Finished Water Chloride	NC	X	NC	X	NC	X	X	X	X	X
Finished Water Sulfate	NC	X	NC	X	NC	X	X	X	X	X
Finished Water TDS	NC	X	NC	X	NC	X	X	X	X	X
Surface Water Chloride	NC	X	NC	X	NC	X	X	X	X	X
Surface Water Sulfate	NC	X	NC	X	NC	X	X	X	X	X
Surface Water TDS	NC	X	NC	X	NC	X	X	X	X	X
Aquatic Life										
Dissolved Oxygen	C	X	X	X	X	X	NA	X	X	NA
Metals in Water	X	NA	X	X	X	X	X	NA	NA	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	X	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Cypress River Basin Graphical Summary

Basin Map	Water Bodies									
	Segment 0405 Lake Cypress Springs	Segment 0406 Black Bayou	Segment 0407 James' Bayou	Segment 0408 Lake Bob Sandlin	Segment 0409 Little Cypress Bayou					
DESIGNATED USE SUPPORT										
Contact Recreation	NA	S	S	S	S					
Noncontact Recreation	X	X	X	X	X					
Public Water Supply	S	S	S	S	S					
Fish Consumption										
Human Health	S	NA	NA	S	S					
Advisories/Closures	NA	NA	NA	NA	NA					
Aquatic Life										
Dissolved Oxygen (Grab)	NA	N	P	S	N					
Dissolved Oxygen (24-Hour)	NA	NA	NA	NA	NA					
Metals in Water	S	NA	S	S	S					
Organics in Water	NA	NA	NA	NA	NA					
Water Toxicity Tests	NA	NA	NA	NA	S					
Sediment Toxicity Tests	NA	NA	NA	NA	NA					
Macrobenthos	NA	S	NA	NA	NA					
Fish	NA	S	NA	NA	NA					
GENERAL USE SUPPORT										
Water Temperature	NA	S	S	S	S					
pH	NA	S	S	S	S					
Chloride	NA	S	S	S	S					
Sulfate	NA	S	S	S	S					
Total Dissolved Solids	NA	S	S	S	S					

S = Support; P = Partial Support; N = Nonsupport; T = Threatened; NC = No Concern; C = Concern;
 NA = Not Assessed; X = Not Applicable

Cypress River Basin Graphical Summary (Continued)

Basin Map	Water Bodies									
	Segment 0405 Lake Cypress Springs	Segment 0406 Black Bayou	Segment 0407 James' Bayou	Segment 0408 Lake Bob Sandlin	Segment 0409 Little Cypress Bayou					
										
WATER QUALITY CONCERNS										
Contact Recreation	NA	X	X	X	X					
Noncontact Recreation	X	X	X	X	X					
Fish Tissue	NA	NA	NA	NA	NA					
Sediment	NA	NA	NA	NA	NC					
Narrative	NC	NC	NC	NC	NC					
Nutrient Enrichment										
Ammonia Nitrogen	NA	NC	NC	NC	NC					
Nitrite + Nitrate Nitrogen	NA	NC	NC	NC	NC					
Orthophosphorus	NA	NC	NC	NC	NC					
Total Phosphorus	NA	NC	NC	NC	NC					
Chlorophyll <i>a</i>	NA	NC	NC	NC	NC					
Public Water Supply										
Finished Water Chloride	NC	NC	NC	NC	NC					
Finished Water Sulfate	NC	NC	NC	NC	NC					
Finished Water TDS	NC	NC	NC	NC	NC					
Surface Water Chloride	NA	NC	NC	NC	NC					
Surface Water Sulfate	NA	NC	NC	NC	NC					
Surface Water TDS	NA	NC	NC	NC	NC					
Aquatic Life										
Dissolved Oxygen	NA	X	X	X	X					
Metals in Water	X	NA	X	X	X					
Organics in Water	NA	NA	NA	NA	NA					
Water Toxicity Tests	NA	NA	NA	NA	X					
Sediment Toxicity Tests	NA	NA	NA	NA	NA					

Cypress Creek Basin

Segment 0401 - Caddo Lake

Water body description: From the Louisiana state line in Harrison/Marion County to a point 12.3 km (7.6 miles) downstream of SH 43 in Harrison/Marion County, up to pool elevation of 168.5 feet (impounds Big Cypress Creek).

Water body classification: Classified

Water body type: Reservoir

Water body length / area: 26,800 Acres

Use support summary: The aquatic life use is not supported in an approximately 650-acre reach in the Harrison Bayou Arm, an approximately 1000-acre reach near Hells Half Acre in Carter Lake, and in an approximately 2000-acre reach near Devils Elbow in Clinton Lake due to depressed dissolved oxygen concentrations. The fish consumption use is partially supported in the entire reservoir based on a restricted-consumption advisory issued by the Texas Department of Health in November 1995, due to elevated mercury concentrations in fish tissue. General uses are partially supported in an approximately 1000-acre reach near Hells Half Acre in Carter Lake, and not supported in an approximately 2000-acre reach near Devils Elbow in Clinton Lake due to pH values which fall below the minimum criterion. General uses are not supported in the entire segment due to the elevated average concentration of total dissolved solids. The public water supply and contact recreation uses are supported.

Water quality concerns summary:

Dissolved oxygen is an aquatic life concern in an approximately 300 acres in the Goose Prairie arm of the segment. Oil and grease, nickel, zinc, selenium, mercury, and arsenic in sediment are concerns in approximately 650 acres in the Harrison Bayou arm of the segment. Ammonia nitrogen is a concern in approximately 2000 acres near Devils Elbow in Clinton Lake, as well as in approximately 650 acres in the Harrison Bayou arm of the segment.

Additional information: A project is underway for mercury in fish tissue to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program.

Projects are scheduled for dissolved oxygen and pH to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program.

For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Data associated with the current proposal to revise the Texas Surface Water Quality Standards indicate that the appropriate criterion for evaluating the average concentration of total dissolved solids in this segment is 200 mg/L. Although the average concentration of total dissolved solids exceeds the current criterion, it does not exceed the revised criterion. Consequently, the TNRCC will defer listing total dissolved solids as an impairment pending adoption and approval of the revised Standards.

Monitoring sites used in the assessment

Station	Station Description
10283	Caddo Lake mid-lake
10286	Caddo Lake 0.25 mi. NE of the mouth of Harrison Bayou and 0.5 mi. east of Long Point
10294	Caddo Lake near Hells Half Acre in Carter Lake
14236	Caddo Lake at Devils Elbow in upper lake near Clinton Lake
14946	Caddo Lake 0.5 mi. north of Long Point in a natural channel between two cypress breaks at Goose Island
15023	Caddo Lake at Pine Needle Lodge pier, approx. 5 mi. SE of the intersection of SH 43 and SH 49
15248	Caddo Lake near shore Kenneth Winns pier, 2 mi. north of FM 2198 on Pine Island Rd (RR2 box 11C-1)

Monitoring sites, continued

Station	Station Description
15249	Caddo Lake near shore at end of FM 2198 at Dwight Shellmans property, SE of Uncertain
15275	Caddo Lake in Goose Prairie arm near boat ramp at Crip's Camp in Uncertain, TX

Published studies

Publication	Date	Author
IMS 50 Caddo Lake	Feb. 1975	Kirkpatrick, J.
AS 121/SR Cypress Creek Basin	Jan. 1993	Crowe, A. (Region 5)

Wastewater dischargers

Permit type	Number of outfalls
Domestic	1
Industrial	2

Cypress Creek Basin

Segment 0401A - Harrison Bayou (unclassified water body)

Water body description: From the confluence of Caddo Lake east of Karnack in Harrison County to the upstream perennial portion of the stream east of Marshall in Harrison County

Water body classification: Unclassified

Water body type: Freshwater Stream

Water body length / area: 16.00 Miles

Use support summary: The aquatic life use is partially supported due to depressed dissolved oxygen concentrations. Available data are inadequate to evaluate other aspects of the aquatic life use, and other uses.

Water quality concerns summary: Water quality concerns were not assessed due to insufficient data.

Additional information: A project is scheduled for dissolved oxygen to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

Station	Station Description
15506	Harrison Bayou at Harrison CR 2211, 2.8 mi. downstream of FM 1998
15507	Harrison Bayou at FM 1998, 10 mi. east of Marshall
15508	Harrison Bayou at FM 134, 4 mi. south of Karnack
15509	Harrison Bayou at Harrison CR 2607, 1.5 mi. east of FM 134 at south border of Longhorn Army Ammunition Plant, 2.5 mi. north of Leigh

Cypress Creek Basin

Segment 0402 - Big Cypress Creek Below Lake O' the Pines

Water body description: From a point 12.3 km (7.6 miles) downstream of SH 43 in Harrison/Marion County to Ferrell's Bridge Dam in Marion County.

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 63.00 Miles

Use support summary: The aquatic life use is partially supported in the lower 25 miles due to depressed dissolved oxygen concentrations. The fish consumption use is partially supported through the entire segment based on a restricted-consumption advisory issued by the Texas Department of Health in November 1995, due to elevated mercury concentrations in fish tissue. General uses are partially supported in the lower 25 miles due to pH values below the minimum criterion. Available data indicate that the contact recreation and public water supply uses are supported.

Water quality concerns summary:

Mercury, arsenic, barium, chromium, manganese, and zinc in sediment are concerns in the lower 25 miles of the segment.

Additional information:

A project is underway for mercury in fish tissue to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program.

Projects are scheduled for dissolved oxygen and pH to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program.

Additional information, continued: For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

Station	Station Description
10295	Big Cypress Creek at SH 43 north of Karnack
14471	Big Cypress Bayou at Benton Lake approximately 4.6 mi. upstream of SH 43 Bridge
15022	Big Cypress Creek approx. 1.2km downstream of SH 43 at Caddo Lake State Park boat ramp
15135	Big Cypress Creek immediately below Lake O' The Pines at Marion Co. Rd. 0.5 mi downstream of FM 726
15511	Big Cypress Bayou at US 59 in Jefferson
16254	Big Cypress Creek at the City of Marshall public water supply intake approx. 5km upstream of SH43

Wastewater dischargers

Permit type	Number of outfalls
Domestic	5

Cypress Creek Basin

Segment 0402A - Black Cypress Bayou (unclassified water body)

Water body description: From the confluence of Big Cypress Bayou southeast of Jefferson in Marion County to the upstream perennial portion of the stream east of Daingerfield in Morris County.

Water body classification: Unclassified

Water body type: Freshwater Stream

Water body length / area: 50.00 Miles

Use support summary: The aquatic life use is not supported in a one mile reach near state highway 155 (Pruitt Lake) due to depressed dissolved oxygen concentrations. The fish consumption use is partially supported in the same reach based on a restricted-consumption advisory issued in April 1999 by the Texas Department of Health due to elevated mercury concentrations in fish tissue. Available data indicate that the contact recreation use is supported.

Water quality concerns summary: Arsenic, oil and grease, barium, chromium, manganese, and selenium in sediment are concerns in a one-mile reach around SH 155 (Pruitt Lake).

Additional information: A project is underway for mercury in fish tissue to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program.

A project is scheduled for dissolved oxygen to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

Station	Station Description
10245	Black Cypress Creek at US 59 north of Jefferson
10246	Black Cypress Bayou at SH 155, 5.2 mi. NE of Avinger
10248	Black Cypress Bayou at FM 250, 4 mi. NE of Hughes Springs

Cypress Creek Basin

Segment 0403 - Lake O' the Pines

Water body description: From Ferrell's Bridge Dam in Marion County to a point 1.0 km (0.6 miles) downstream of US 259 in Morris/Upshur County, up to normal pool elevation of 228.5 feet (impounds Big Cypress Creek).

Water body classification: Classified

Water body type: Reservoir

Water body length / area: 18,700 Acres

Use support summary: The aquatic life use is partially supported in approximately 2000 acres in the upper end of the reservoir due to depressed dissolved oxygen concentrations. Available data indicate that all other uses are supported.

Water quality concerns summary: Ammonia nitrogen and total phosphorus are concerns in approximately 5000 acres in the middle portion of the reservoir. Nitrite + nitrate nitrogen is a concern in approximately 2000 acres in the upper end of the reservoir.

Additional information: A project is underway for dissolved oxygen to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

Station	Station Description
10296	Lake O' the Pines mid lake near dam
10297	Lake O' the Pines in river channel 30m from Northeast Texas Municipal Water Dist. intake
10298	Lake O' the Pines at SH 155 east of Ore City
10300	Lake O' the Pines adjacent to Lone Star Landing 0.75km SE of US 259
13977	Lake O' the Pines site EC

Monitoring sites, continued

Station	Station Description
16156	Lake O' the Pines mid lake opposite FM 729 bridge on Alley Creek, equidistant between both shorelines
16448	Lake O' The Pines in the Brushy Creek arm approx. 13km SE of ore City, on the south side of the lake
16450	Lake O' the Pines in the Alley Creek Cove on the north side of the lake, approx. 200m north of FM 729 bridge
16452	Lake O' the Pines in Hurricane Creek Cove on the north side of the lake, approx 390m north of the FM 729 bridge

Published studies

Publication	Date	Author
IMS 39 Lake O' the Pines	Feb. 1975	Petrick, D.

Wastewater dischargers

Permit type	Number of outfalls
Domestic	4
Industrial	4

Cypress Creek Basin

Segment 0404 - Big Cypress Creek Below Lake Bob Sandlin

Water body description: From a point 1.0 km (0.6 miles) downstream of US 259 in Morris/Upshur Counties to Fort Sherman Dam in Camp/Titus Counties.

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 55.00 Miles

Use support summary: Available data indicate that the aquatic life, contact recreation, and general uses are supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Oil and grease, arsenic, cadmium, chromium, copper, lead, manganese, nickel, and zinc in sediment are concerns in the lower three miles of the segment. Nitrite + nitrate nitrogen, orthophosphorus, and total phosphorus are concerns in a 25-mile reach from just upstream of the confluence with Ellison Creek to just upstream of SH 11.

Additional information: A wasteload evaluation (WLE) for dissolved oxygen was approved in 1988 and has been incorporated into the state Water Quality Management Plan. Advanced waste treatment is required for one or more dischargers.

Monitoring sites used in the assessment

Station	Station Description
10307	Big Cypress Creek at Fish Camp approx. 11km west of Jenkins, approx. 12km east of Pittsburg, approx 3.7km below Dry Creek confluence.
10308	Big Cypress Creek Bridge on SH 11 east of Pittsburg
10311	Big Cypress Creek below spillway at Fort Sherman Dam (Lake Bob Sandlin)
13631	Big Cypress Creek at US 259, 3 mi. south of Lonestar
15257	Big Cypress Creek at FM 997 SW of Lone Star
16457	Big Cypress Creek approx. 1.9km below Walker Creek confluence., approx. 8km NE of Pittsburg

Monitoring sites, continued

Station	Station Description
16458	Big Cypress Creek immediately downstream of confluence. with Greasy Creek, approx. 6.4km SW of Lone Star
16460	Big Cypress Creek at gas line crossing approx. 1.4km east of US 271 and approx. 9.5km south of Mt. Pleasant

Published studies

Publication	Date	Author
IMS 51 Cypress Creek	Sept. 1976	Twidwell, S.
IS 74 Cypress Creek	Aug. 1983	Petrick, D.

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	2
Domestic	8
Industrial	31

Cypress Creek Basin

Segment 0404A - Ellison Creek Reservoir (unclassified water body)

Water body description: From the Morris County Dam up to normal pool elevation near Lone Star in Morris County (impounds Ellison Creek)

Water body classification: Unclassified

Water body type: Reservoir

Water body length / area: 1,400 Acres

Use support summary: Available data indicate that the aquatic life and fish consumption uses are supported. The contact recreation use was not assessed due to insufficient data.

Water quality concerns summary: Arsenic, barium, copper, manganese, silver, cadmium, chromium, lead, nickel, zinc, and selenium in sediment are concerns.

Monitoring sites used in the assessment

Station	Station Description
14473	Ellison Creek Reservoir at dam west of Lone Star Steel
14994	Ellison Creek Reservoir in mid Barnes Creek arm approximately 2 mi. downstream of US 259

Cypress Creek Basin

Segment 0404B - Tankersley Creek (unclassified water body)

Water body description: From the confluence of Big Cypress Creek to the upstream perennial portion of the stream northwest of Mount Pleasant in Titus County

Water body classification: Unclassified

Water body type: Freshwater Stream

Water body length / area: 8.00 Miles

Use support summary: The contact recreation use is not supported due to elevated fecal coliform densities. The aquatic life use is supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Ammonia nitrogen, nitrite + nitrate nitrogen, orthophosphorus, and total phosphorus are concerns in the lower 5 miles.

Additional information: A project is scheduled for fecal coliform bacteria to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

Station	Station Description
10261	Tankersley Creek at FM 3417, south of Mount Pleasant
10263	Tankersley Creek at FM 127, SW of Mount Pleasant
10264	Tankersley Creek at FM 899 in Mount Pleasant

Cypress Creek Basin

Segment 0404C - Hart Creek (unclassified water body)

Water body description: From the confluence of Big Cypress Creek to the upstream perennial portion of the stream northeast of Mount Pleasant in Titus County

Water body classification: Unclassified

Water body type: Freshwater Stream

Water body length / area: 15.00 Miles

Use support summary: Available data indicate that the aquatic life use is supported. Other uses were not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10266	Hart Creek at Titus County Road 3.8 km upstream of Big Cypress Creek confluence, south of Mount Pleasant

Cypress Creek Basin

Segment 0404D - Welsh Reservoir (unclassified water body)

Water body description: From Titus County Dam up to normal pool level located between Mt. Pleasant and Dangerfield in Titus County (impounds Swauano and Justiss Creeks)

Water body classification: Unclassified

Water body type: Reservoir

Water body length / area: 1,365 Acres

Use support summary: The fish consumption use is not supported in the entire reservoir, based on a no-consumption advisory issued for sensitive subpopulations by the Texas Department of Health in May 1992 due to elevated selenium concentrations in fish tissue. Other uses were not assessed due to insufficient data.

Water quality concerns summary: Water quality concerns were not assessed due to insufficient data.

Additional information: A project is underway for selenium in fish tissue to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Cypress Creek Basin

Segment 0405 - Lake Cypress Springs

Water body description: From Franklin County Dam in Franklin County up to the normal pool elevation of 378 feet (impounds Big Cypress Creek).

Water body classification: Classified

Water body type: Reservoir

Water body length / area: 3,400 Acres

Use support summary: The aquatic life, public water supply, and fish consumption uses are supported. The contact recreation and general uses were not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10312	Lake Cypress Springs mid-lake near dam, SE of Mount Vernon
10313	Lake Cypress Springs at FM 115, SE of Mount Vernon

Historical fish kills

Start date	Location	Fish killed	Suspected cause
06/21/1994	Lake Cypress Springs Reservoir, approx 0.5 mi E and W of the 115 bridge	2,500	Disease

Cypress Creek Basin

Segment 0406 - Black Bayou

Water body description: From the Louisiana state line in Cass County to FM 96 in Cass County

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 24.00 Miles

Use support summary: Based on assessments of the fish and benthic macro-invertebrate communities, the aquatic life use is fully supported even though dissolved oxygen concentrations are sometimes less than the criterion in the lower half of the segment. Available data indicate that all other uses are supported.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10314	Black Bayou at Cass CR 4659, 1.6 mi. SW of SH 77, 4 mi. north of McLeod
10316	Black Bayou at FM 251, south of Atlanta
16157	Black Bayou at FM 2791, 3.2km west of intersection of FM 2791 and US 59 in Queen City

Published studies

Publication	Date	Author
IMS 48 Black Bayou	Sept. 1976	Twidwell, S.
IS 35 Black Bayou	Aug. 1980	Twidwell, S.

Wastewater dischargers

Permit type	Number of outfalls
Domestic	1
Industrial	3

Cypress Creek Basin

Segment 0407 - James' Bayou

Water body description: From the Louisiana state line in Marion County to Club Lake Road northwest of Linden in Cass County.

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 40.00 Miles

Use support summary: The aquatic life use is partially supported in the lower 32 miles due to depressed dissolved oxygen concentrations. The contact recreation, public water supply, and general uses are supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Additional information: A project is scheduled for dissolved oxygen to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

Station	Station Description
10319	James (Jims) Bayou Bridge on Marion CR 3312, NE of Smithland
10321	James Bayou at FM 1775, 1.6 mi. SW of Kildare

Published studies

Publication	Date	Author
IMS 49 James Bayou	Sept. 1976	Twidwell, S.
IS 46 James Bayou	Sept. 1981	Petrick, D.

Wastewater dischargers

Permit type	Number of outfalls
Domestic	3

Cypress Creek Basin

Segment 0408 - Lake Bob Sandlin

Water body description: From Fort Sherman Dam in Camp/Titus County to Franklin County Dam in Franklin County up to normal pool elevation of 337.5 feet (impounds Big Cypress Creek).

Water body classification: Classified

Water body type: Reservoir

Water body length / area: 9,460 Acres

Use support summary: Available data indicate that uses are supported.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10329	Lake Bob Sandlin at dam, SW of Mount Pleasant
10330	Lake Bob Sandlin adjacent to Lake Monticello dam, SW of Mount Pleasant
16158	Lake Bob Sandlin at SH 21 equidistant from north and south shorelines and approx. 17km SW of Mount Pleasant

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	4
Domestic	2
Industrial	21

Cypress Creek Basin

Segment 0409 - Little Cypress Bayou (Creek)

Water body description: From the confluence of Big Cypress Creek in Harrison/ Marion County to a point 1.0 km (0.6 miles) upstream of FM 2088 in Wood County

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 76.00 Miles

Use support summary: The aquatic life use is not supported in the entire segment due to depressed dissolved oxygen concentrations. Available data indicate that other uses are supported.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Additional information: A project is scheduled for dissolved oxygen to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

Station	Station Description
10331	Little Cypress Creek at FM 134 NW of Baldwin, SE of Jefferson
10332	Little Cypress Creek at US 59, 3.3 mi. south of Jefferson
10333	Little Cypress Bayou at SH 154, 8 mi. east of Gilmer
10334	Little Cypress Bayou at FM 555
15773	Little Cypress Creek at FM 450, 12.5 mi. north of intersection of US 80 and FM 450 at Hallsville

Published studies

Publication	Date	Author
IS 91-04 Little Cypress Bayou	July 1990	Petrick, D.

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	5
Domestic	6
Industrial	6

Historical fish kills

Start date	Location	Fish killed	Suspected cause
01/02/1997	Gray's Creek	21	Organic compound

