

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AGENDA ITEM REQUEST
for Adoption

AGENDA REQUESTED: June 1, 2022

DATE OF REQUEST: May 13, 2022

INDIVIDUAL TO CONTACT REGARDING CHANGES TO THIS REQUEST, IF NEEDED: Gwen Ricco, Texas Register/Agenda Coordinator, (512) 239-2678

CAPTION: Docket No. 2021-1647-MIS. Consideration of the adoption of the Draft 2022 Texas Integrated Report, for compliance with the requirements of the federal Clean Water Act, Sections 303(d) and 305(b), which is a compilation of documents and information which provides an overview of the state's surface water quality.

The Draft 2022 Texas Integrated Report will inform the regulated community and the public of the water quality status of surface waters in the state. The Draft 2022 Texas Integrated Report will also provide agencies with information to enable informed permitting decisions, resource allocations, and to determine where total maximum daily loads, watershed protection plans, and other water quality improvement efforts are needed. Notice of the proposed Draft 2022 Texas Integrated Report was published in the January 28, 2022, issue of the *Texas Register* (47 TexReg 357). The proposed Draft 2022 Texas Integrated Report was posted on the commission's Water Quality Planning Division's website on January 28, 2022. (Laura Ryckman, Michael Parr; Non-Rule Project No. 2022-007-OTH-NR)

Earl Lott

Director

Lori Hamilton

Division Deputy Director

Gwen Ricco

Agenda Coordinator

Texas Commission on Environmental Quality

Interoffice Memorandum

To: Commissioners
Date: May 13, 2022

Thru: Laurie Gharis, Chief Clerk
Toby Baker, Executive Director

From: Earl Lott, Director
Office of Water

Docket No.: 2021-1647-MIS

Subject: Commission Approval for Adoption
The Draft 2022 Texas Integrated Report of Surface Water Quality
Non-Rule Project No. 2022-007-OTH-NR

Summary and background:

The Integrated Report (IR) is a compilation of documents and information that provides an overview of the state's surface water quality. Factors considered in evaluating the status of water bodies include concerns for public health, viability for use by aquatic species and other wildlife, and identification of elevated levels of specific pollutants and their possible sources. The IR includes a list of water bodies that do not support their water quality uses. This list is known as the Texas 303(d) List. The IR also includes the *Guidance for Assessing and Reporting Surface Water Quality in Texas*, assessment data, additional water quality status reporting, and supporting documents. Requirements for the IR are codified in the federal Clean Water Act (CWA), §303(d) and §305(b), and in the Texas Water Code (TWC), §26.0135.

Portions of the IR proposed for consideration by the commission include the following:

- Summary 2022 IR for CWA, §303(d) and §305(b);
- Draft 2022 Texas 303(d) List;
- Draft 2022 New Listing;
- Draft 2022 Delisting; and
- Draft 2022 Public Comment and Response.

Scope:

Geographic information, monitoring data, and supporting documentation were compiled from throughout the state to determine if surface waters in the state were impaired or meeting water quality standards. Water quality concerns are reported for water bodies that are near non-attainment or not meeting established screening levels. The 2022 IR fulfills the requirements of the federal CWA, §303(d) and §305(b).

A.) Summary of what the Integrated Report will do:

The IR assigns each assessed water body to one of five categories. For each water body assessed, the categories indicate the water quality status and how the state will address water quality issues. The categories provide information to the public, stakeholders, internal agency programs, and the United States Environmental Protection Agency (EPA) about the state's water quality management activities. Water bodies included in Category 5 constitute the Texas 303(d) List.

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B.) Scope required by federal regulations or state statutes:

Requirements for the IR are codified in the federal CWA, §303(d) and §305(b), and in the TWC, §26.0135. Administrative regulatory requirements are established in 40 Code of Federal Regulations (CFR) §130.7 and in 30 Texas Administrative Code (TAC) Chapter 307. Additional procedural guidance is established by the Texas Commission on Environmental Quality (TCEQ).

C.) Additional staff recommendations that are not required by federal rule or state statute:

The IR includes supporting documentation useful to programs that administer the state's water quality management programs, as well as, to the public and stakeholders.

Statutory authority:

Requirements for the IR are codified in the federal CWA, §303(d) and §305(b), and in the TWC, §26.0135. Administrative regulatory requirements are established in 40 CFR §130.7, and in 30 TAC Chapter 307. Additional procedural guidance is established by TCEQ.

Effect on the:

A.) Regulated community:

The IR informs the regulated community of water quality status. Non-support of designated uses for surface water may affect discharge permits and other regulated activities that could affect impaired water bodies. Conversely, appropriate removal of water bodies from the Texas 303(d) List can avoid unnecessary regulatory impacts.

B.) Public:

The IR serves all stakeholders by providing information regarding the quality of surface waters locally and throughout the state of Texas. Protection of surface waters through the IR process serves to protect human health and the aquatic environment for the state.

C.) Agency programs:

The IR provides information to enable informed permitting decisions and resource allocations, and to determine where total maximum daily loads (TMDLs), watershed protection plans, and other water quality improvement efforts are needed. Grant funding under the federal CWA, §319(h), is prioritized for water bodies identified as impaired.

Stakeholder involvement:

Biennially, an external advisory workgroup is convened to discuss proposed changes to the *Guidance for Assessing and Reporting Surface Water Quality in Texas*. The workgroup comprises of representatives from state agencies, municipalities, industry, environmental groups, and river authorities. For the draft 2022 IR, TCEQ convened a meeting with the external advisory workgroup on November 17, 2020, to review the assessment procedures that would be used to evaluate monitoring data.

Other stakeholder involvement includes a preliminary review of assessment results by data providers, such as TCEQ Regional Offices, river authorities, Texas State Soil and Water Conservation Board, the Texas Parks and Wildlife Department, and the Texas

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Department of State Health Services. From October 29, 2021 to November 19, 2021, data providers previewed the preliminary assessment results and provided additional comments.

The Watershed Action Planning (WAP) process involves state agencies, river authorities, and other stakeholders in the IR process through review of assessment outcomes and category assignment. Strategies for addressing water quality impairments are developed through WAP proceedings.

EPA review:

The EPA reviews the draft assessment results upon release for public comment and reviews the final draft IR adopted by the commission under the provisions of the federal CWA. The Texas 303(d) List is only considered final upon approval by the EPA.

Public comment:

A 30-day public comment period occurred from January 28, 2022 through March 1, 2022. The agency received formal comments from the Texas Parks and Wildlife Department.

Recent changes:

Multiple impairments with EPA-approved TMDLs were erroneously included on the Draft 303(d) List of Impaired Waters (Category 5) that was released for public comment. No comments were received on these designations. However, to correct these errors, the following impairments were removed from the Draft 303(d) List and moved to Category 4a:

Assessment Unit 0704_02 - Hillebrandt Bayou - Recreation Use

Assessment Unit 1304_01 - Caney Creek Tidal - Recreation Use

Assessment Unit 2453C_01 - Arenosa Creek - Recreation Use

Assessment Unit 2481CB_03 and 2481CB_04 - Cole Park and Ropes Park Beaches - Beach Use

Assessment Unit 2485_02 - Oso Bay - Recreation Use

Potential controversial concerns and legislative interest:

TCEQ is not aware of any potential controversial concerns or legislative interest.

Does this Integrated Report affect any current policies or require development of new policies?

No.

What are the consequences if this Integrated Report does not go forward? Are there alternatives?

States are required to submit the IR by April 1 of even-numbered years. TCEQ receives federal funds from EPA to assess water bodies and develop the IR. Loss of funding is a potential consequence of not proceeding with the IR. If TCEQ does not submit the IR, EPA has the authority to develop the IR and promulgate the 303(d) List of Impaired Waters. Additionally, stakeholders rely on the information contained in the IR when planning

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activities to address water quality. Delays in approval of the IR impact the ability of stakeholders to have the most recent information and make informed decisions when planning water quality management activities.

Key points in the schedule:

***Texas Register* public notice publication date:** January 28, 2022

Draft proposal publication date (on TCEQ's Water Quality Planning Division's Web page): January 28, 2022

Public comment period: January 28, 2022 to March 1, 2022

Anticipated adoption date: June 1, 2022

Anticipated submittal to EPA: June 2022

Agency contacts:

Laura Ryckman, Project Manager, Water Quality Planning Division, (512) 239-4616

Michael Parr, Staff Attorney, (512) 239-0611

Gwen Ricco, Texas Register/Agenda Coordinator, (512) 239-2678

Attachments

Summary 2022 IR for CWA, §303(d) and §305(b)

Draft 2022 Texas 303(d) List

Draft 2022 New Listings

Draft 2022 Delistings

Draft 2022 Public Comment and Response.

cc: Chief Clerk, 7 copies

Summary 2022 Texas Integrated Report for Clean Water Act, §305(b) and §303(d)

Parameters by Type	Media	Use	2020 Cat 5	2022 Texas 303(d) List Category 5 Impairments					WBP in Place ⁵	Restored/ Protection ⁶
				All	WQS Review ¹	WBP in Progress ²	WBP in Place ³	Action TBD ⁴		
Bacteria	In water	Recreation	322	342	92	5a (25) 5b (10) 5c (8)	5a (2) 5b (13) 5c (64)	151	218	198
		General Use	2	2	-	-	-	2	-	-
	In shellfish	Oyster Waters	10	10	-	-	-	10	10	-
	Beaches	Beach Use	4	4	-	5a (1) 5b (0) 5c (0)	-	3	2	-
Dissolved Oxygen	In water	Aquatic Life	135	135	75	5a (0) 5b (1) 5c (4)	5a (0) 5b (7) 5c (13)	43	21	156
Toxicity	In ambient water	Aquatic Life	4	4	-	-	-	4	-	-
	In ambient sediment		6	6	-	-	-	6	-	-
Organics in edible tissue	Dieldrin	Fish Consumption, Aquatic Life	1	1	-	-	-	1	1	6
Organics in edible tissue	Other legacy organics	Fish Consumption, Aquatic Life	-	-	-	-	-	-	-	85
	Dioxin		139	145	-	-	-	145	-	-
	PCBs		138	143	-	-	-	143	7	-
Metals (except Mercury)	In water	Fish Consumption, Aquatic Life	14	15	-	-	-	15	1	-
Mercury	In fish/shellfish	Fish Consumption, Oyster Waters, Aquatic Life	71	71	-	-	-	71	1	-
Dissolved Solids	Chloride	General	24	29	1	-	-	28	2	14
	Sulfate		30	19	10	-	-	9	4	10
	Total dissolved solids		30	22	5	-	-	17	4	26
Temperature	In water	General	1	1	-	-	-	1	-	-
pH	In water	General	34	32	14	-	-	18	1	1

¹ A review of the water quality standards will be conducted. Some of these water bodies may have a Watershed Based Plan (WBP) in progress or in place. WBP may include a Total Maximum Daily Load (TMDLs) and/or a Watershed Protection Plan (WPPs).

² WBP in progress can include TMDLs and/or WPPs that are in development but not yet approved/accepted by EPA.

³ WBP in place can include WPPs for Category 5 waters that have been approved/accepted by EPA.

⁴ Additional data and information will be collected or evaluated before a management strategy is selected.

⁵ WBP in place can include a TMDL approved by EPA and/or WPPs. This column does not include Category 5 impairments.

⁶ TMDL/WPP Restored or WPP Protection.

Parameters by Type	Media	Use	2020 Cat 5	2022 Texas 303(d) List Category 5 Impairments					WBP in Place ⁵	Restored/Protection ⁶
				All	WQS Review ¹	WBP in Progress ²	WBP in Place ³	Action TBD ⁴		
Excessive Algal Growth	In water	General	15	45	-	-	-	45	5	1
Biological	Fish community	Aquatic Life	15	14	2	-	-	12	-	-
	Macrobenthos community		14	11	2	-	-	9	-	-
Contaminant	In water	Public Water Supply	-	-	-	-	-	-	-	4
Total AUs			1009	1051						

¹ A review of the water quality standards will be conducted. Some of these water bodies may have a Watershed Based Plan (WBP) in progress or in place. WBP may include a Total Maximum Daily Load (TMDLs) and/or a Watershed Protection Plan (WPPs).

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⁶TMDL/WPP Restored or WPP Protection.

Draft 2022 Texas Integrated Report - Texas 303(d) List (Category 5)

As required under Sections 303(d) and 305(b) of the federal Clean Water Act, this list identifies the water bodies in or bordering Texas for which effluent limitations are not stringent enough to implement water quality standards, and for which the associated pollutants are suitable for measurement by maximum daily load.

In addition, the TCEQ also develops a schedule identifying Total Maximum Daily Loads (TMDLs) that will be initiated in the next two years for priority impaired waters. Issuance of permits to discharge into 303(d)-listed water bodies is described in the TCEQ regulatory guidance document *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010, RG-194). Impairments are limited to the geographic area described by the Assessment Unit and identified with a six or seven-digit AU_ID. A management strategy will be assigned to each impairment. Specific strategies may include TMDL development, water quality standards evaluation, or additional monitoring.

Explanation of Column Headings

SegID and Name: The unique identifier (SegID) and name of the water body. Items may be one of three types of numbers for SegID. The first type is a classified segment number (4 digits, e.g., 0218), as defined in the Texas Surface Water Quality Standards (TSWQS). The second type is an unclassified water body (e.g., 0218A), not defined in the Standards and associated with a classified water body because it is in the same watershed. The third type includes special Segments for Oyster Water Use (e.g., 2421OW) and Beach Watch Use (e.g., 2481CB) special areas.

AU ID: Identifies the assessment unit (AU_ID, six or seven digits, e.g., 0101A_01) and describes the location of the specific area within a classified or unclassified water body for which one or more water quality standards are not met.

Parameter(s): Pollutants or water quality conditions that assessment procedures indicate do not meet assigned water quality standards.

Category: One of four subcategories assigned to each impaired parameter to provide information about water quality status and management activities on that water body. The categories are defined below:

Category 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

Category 5a: A TMDL is underway, scheduled, or will be scheduled.

Category 5b: A review of the standards for the water body will be conducted before a management strategy is selected.

Category 5c: Additional data and information will be collected or evaluated before a management strategy is selected.

Category 5n: Water body does not meet its applicable Chl a criterion, but additional study is needed to verify whether exceedance is associated with causal nutrient parameters or impacts to response variables.

Year Segment First Listed : The initial assessment year the pollutant or water quality condition in this water body (Segment, not specifically the year for each AU_ID) did not meet water quality standards.

Draft 2022 Texas Integrated Report - Texas 303(d) List (Category 5)

Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0101A	Dixon Creek	0101A_01	Depressed dissolved oxygen in water	2000	5c
			Selenium in water	2010	5c
0101B	Rock Creek	0101B_01	Bacteria in water (Recreation Use)	2006	5c
0102	Lake Meredith	0102_01	Chloride in water	2006	5c
			Mercury in edible tissue	2002	5c
			Sulfate in water	2006	5c
			Total dissolved solids in water	2006	5c
		0102_02	Chloride in water	2006	5c
			Mercury in edible tissue	2002	5c
			Sulfate in water	2006	5c
			Total dissolved solids in water	2006	5c
0103	Canadian River Above Lake Meredith	0103_01	Chloride in water	2006	5c
		0103_02	Chloride in water	2006	5c
		0103_03	Chloride in water	2006	5c
0103A	East Amarillo Creek	0103A_01	Bacteria in water (Recreation Use)	2018	5b
0104	Wolf Creek	0104_01	Temperature in water	2018	5c
0105	Rita Blanca Lake	0105_01	Depressed dissolved oxygen in water	2018	5c
			pH	2006	5c
0201A	Mud Creek	0201A_01	Bacteria in water (Recreation Use)	2002	5b
			Depressed dissolved oxygen in water	2006	5c
0201D	Barkman Creek	0201D_01	Bacteria in water (Recreation Use)	2022	5c
0202A	Bois D' Arc Creek	0202A_03	Bacteria in water (Recreation Use)	2010	5b
0202C	Pecan Bayou	0202C_01	Bacteria in water (Recreation Use)	2018	5c
0202E	Post Oak Creek	0202E_01	Bacteria in water (Recreation Use)	2016	5c
0202F	Choctaw Creek	0202F_01	Bacteria in water (Recreation Use)	2010	5b
		0202F_02	Bacteria in water (Recreation Use)	2010	5b
0202G	Smith Creek	0202G_01	Bacteria in water (Recreation Use)	2006	5b

Draft 2022 Texas Integrated Report - Texas 303(d) List (Category 5)

Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0202I	Little Pine Creek	0202I_01	Bacteria in water (Recreation Use)	2022	5c
			Depressed dissolved oxygen in water	2014	5c
0202L	Honey Grove Creek	0202L_01	Bacteria in water (Recreation Use)	2016	5b
0202N	Hicks Creek	0202N_01	Bacteria in water (Recreation Use)	2020	5b
0202P	Six Mile Creek	0202P_01	Bacteria in water (Recreation Use)	2022	5c
0203A	Big Mineral Creek	0203A_01	Bacteria in water (Recreation Use)	2022	5c
0204	Red River Above Lake Texoma	0204_02	Bacteria in water (Recreation Use)	2022	5c
0205	Red River Below Pease River	0205_01	Bacteria in water (Recreation Use)	2012	5c
0205A	Wildhorse Creek	0205A_01	Bacteria in water (Recreation Use)	2018	5b
0206	Red River Above Pease River	0206_02	Bacteria in water (Recreation Use)	2022	5c
0206B	South Groesbeck Creek	0206B_01	Bacteria in water (Recreation Use)	2006	5b
0206C	North Groesbeck Creek	0206C_01	Bacteria in water (Recreation Use)	2022	5c
0207	Lower Prairie Dog Town Fork Red River	0207_01	Bacteria in water (Recreation Use)	2006	5b
		0207_04	Bacteria in water (Recreation Use)	2006	5b
0208	Lake Crook	0208_01	Excessive algal growth in water	2022	5c
0209	Pat Mayse Lake	0209_01	Excessive algal growth in water	2022	5c
		0209_02	Excessive algal growth in water	2022	5c
0212A	Little Wichita River above Lake Arrowhead	0212A_01	Bacteria in water (Recreation Use)	2020	5c
0214	Wichita River Below Diversion Lake Dam	0214_03	Bacteria in water (Recreation Use)	2006	5c
		0214_05	Bacteria in water (Recreation Use)	2006	5c
0214A	Beaver Creek	0214A_02	Bacteria in water (Recreation Use)	2006	5b
0214F	Unnamed tributary of Buffalo Creek	0214F_01	Bacteria in water (Recreation Use)	2016	5b
0218	Wichita/North Fork Wichita River	0218_03	Bacteria in water (Recreation Use)	2022	5c
0219	Lake Wichita	0219_01	Chloride in water	2014	5c
			Sulfate in water	2014	5c
			Total dissolved solids in water	2014	5c
0221	Middle Fork Pease River	0221_01	Chloride in water	2020	5c
			Sulfate in water	2020	5c
			Total dissolved solids in water	2020	5c
0223	Greenbelt Lake	0223_01	Excessive algal growth in water	2020	5n

Draft 2022 Texas Integrated Report - Texas 303(d) List (Category 5)

Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0226	South Fork Wichita River	0226_01	Chloride in water	2006	5c
		0226_02	Chloride in water	2006	5c
		0226_03	Chloride in water	2006	5c
		0226_04	Chloride in water	2006	5c
0228	Mackenzie Reservoir	0228_01	Total dissolved solids in water	2014	5c
0229	Upper Prairie Dog Town Fork Red River	0229_02	Depressed dissolved oxygen in water	2018	5c
			pH	2006	5c
0299A	Sweetwater Creek	0299A_01	Bacteria in water (Recreation Use)	2002	5c
0302	Wright Patman Lake	0302_12	pH	2000	5b
0302A	Big Creek	0302A_02	Depressed dissolved oxygen in water	2020	5c
0302H	Elliott Creek	0302H_01	Depressed dissolved oxygen in water	2020	5c
0303B	White Oak Creek	0303B_01	Bacteria in water (Recreation Use)	2006	5b
		0303B_03	Bacteria in water (Recreation Use)	2006	5b
			Depressed dissolved oxygen in water	2000	5c
		0303B_04	Bacteria in water (Recreation Use)	2006	5b
0303P	Mustang Creek	0303P_01	Depressed dissolved oxygen in water	2020	5b
0304	Days Creek	0304_01	Bacteria in water (Recreation Use)	2018	5c
0304C	Wagner Creek	0304C_01	Bacteria in water (Recreation Use)	2016	5c
			Depressed dissolved oxygen in water	2022	5c
0306	Upper South Sulphur River	0306_01	Bacteria in water (Recreation Use)	2020	5c
		0306_03	pH	2008	5c
0307A	Middle Sulphur River	0307A_01	Bacteria in water (Recreation Use)	2020	5c
0401	Caddo Lake	0401_01	Mercury in edible tissue	1996	5c
			Depressed dissolved oxygen in water	2000	5c
		0401_02	Mercury in edible tissue	1996	5c
			Depressed dissolved oxygen in water	2000	5c
		0401_03	Mercury in edible tissue	1996	5c
			Depressed dissolved oxygen in water	2000	5c
0401_05	Mercury in edible tissue	1996	5c		

Draft 2022 Texas Integrated Report - Texas 303(d) List (Category 5)

Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category	
0401	Caddo Lake	0401_07	Depressed dissolved oxygen in water	2000	5c	
			Mercury in edible tissue	1996	5c	
0401A	Harrison Bayou	0401A_01	Bacteria in water (Recreation Use)	2022	5c	
			Depressed dissolved oxygen in water	2000	5c	
0402	Big Cypress Creek Below Lake O' the Pines	0402_01	Mercury in edible tissue	1998	5c	
			0402_02	Depressed dissolved oxygen in water	2010	5c
				Mercury in edible tissue	1998	5c
			0402_03	Mercury in edible tissue	1998	5c
0403	Lake O' the Pines	0403_01	pH	2016	5c	
			0403_02	pH	2016	5c
			0403_03	pH	2016	5c
0404	Big Cypress Creek Below Lake Bob Sandlin	0404_02	Bacteria in water (Recreation Use)	2002	5b	
0404A	Ellison Creek Reservoir	0404A_01	Dioxin in edible tissue	2016	5a	
			PCBs in edible tissue	2006	5a	
			Toxicity in sediment	2006	5c	
0404B	Tankersley Creek	0404B_01	Bacteria in water (Recreation Use)	2000	5b	
0404C	Hart Creek	0404C_01	Bacteria in water (Recreation Use)	2006	5b	
0404E	Dry Creek	0404E_01	Bacteria in water (Recreation Use)	2020	5b	
0404F	Sparks Branch	0404F_01	Bacteria in water (Recreation Use)	2022	5c	
0404J	Prairie Creek	0404J_01	Depressed dissolved oxygen in water	2020	5c	
0404N	Lake Daingerfield	0404N_01	Mercury in edible tissue	2002	5c	
0405	Lake Cypress Springs	0405_01	Excessive algal growth in water	2016	5n	
			pH	2012	5c	
		0405_02	Excessive algal growth in water	2016	5n	
			pH	2012	5c	
0405_03	Excessive algal growth in water	2016	5n			
	pH	2012	5c			
0405A	Big Cypress Creek	0405A_01	Bacteria in water (Recreation Use)	2016	5b	
			Depressed dissolved oxygen in water	2014	5c	

Draft 2022 Texas Integrated Report - Texas 303(d) List (Category 5)

Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0406	Black Bayou	0406_01	Depressed dissolved oxygen in water	2002	5c
		0406_02	Bacteria in water (Recreation Use)	2006	5c
			Depressed dissolved oxygen in water	2002	5c
0407	James' Bayou	0407_01	Bacteria in water (Recreation Use)	2006	5b
		0407_02	Depressed dissolved oxygen in water	2000	5c
0409	Little Cypress Bayou (Creek)	0409_01	Depressed dissolved oxygen in water	2000	5c
		0409_02	Bacteria in water (Recreation Use)	2006	5c
			Depressed dissolved oxygen in water	2000	5c
		0409_03	Bacteria in water (Recreation Use)	2006	5c
		0409_04	Bacteria in water (Recreation Use)	2006	5c
0409A	Lilly Creek	0409A_01	Bacteria in water (Recreation Use)	2016	5b
0409B	South Lilly Creek	0409B_01	Bacteria in water (Recreation Use)	2006	5b
			Depressed dissolved oxygen in water	2022	5c
0410	Black Cypress Bayou (Creek)	0410_01	Copper in water	2010	5c
		0410_02	Depressed dissolved oxygen in water	2000	5c
		0410_03	Copper in water	2010	5c
			Lead in water	2020	5c
			Mercury in edible tissue	2000	5c
0410_04	Depressed dissolved oxygen in water	2000	5c		
0410A	Black Cypress Creek/Bayou	0410A_01	Bacteria in water (Recreation Use)	2018	5b
0501	Sabine River Tidal	0501_01	Bacteria in water (Recreation Use)	2006	5c
			PCBs in edible tissue	2012	5a
		0501_02	Bacteria in water (Recreation Use)	2006	5c
			PCBs in edible tissue	2012	5a
		0501_03	PCBs in edible tissue	2012	5a
0501B	Little Cypress Bayou	0501B_01	Bacteria in water (Recreation Use)	2006	5b
			Depressed dissolved oxygen in water	2006	5b
			Toxicity in water	2004	5c

Draft 2022 Texas Integrated Report - Texas 303(d) List (Category 5)

Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0501B	Little Cypress Bayou	0501B_02	Bacteria in water (Recreation Use)	2006	5b
			Depressed dissolved oxygen in water	2006	5b
			Toxicity in water	2004	5c
		0501B_03	Bacteria in water (Recreation Use)	2006	5b
			Depressed dissolved oxygen in water	2006	5b
			Toxicity in water	2004	5c
0502A	Nichols Creek	0502A_01	Bacteria in water (Recreation Use)	2002	5c
			Depressed dissolved oxygen in water	2002	5b
0502B	Caney Creek	0502B_02	Bacteria in water (Recreation Use)	2006	5c
0502E	Cypress Creek	0502E_01	Depressed dissolved oxygen in water	2010	5b
0504	Toledo Bend Reservoir	0504_01	Mercury in edible tissue	1998	5c
		0504_02	Mercury in edible tissue	1998	5c
		0504_03	Mercury in edible tissue	1998	5c
		0504_04	Mercury in edible tissue	1998	5c
		0504_05	Mercury in edible tissue	1998	5c
		0504_06	Mercury in edible tissue	1998	5c
		0504_07	Mercury in edible tissue	1998	5c
		0504_11	Mercury in edible tissue	1998	5c
		0504_12	Mercury in edible tissue	1998	5c
0504E	Clear Lake	0504E_01	Mercury in edible tissue	2006	5c
0505	Sabine River Above Toledo Bend Reservoir	0505_04	Bacteria in water (Recreation Use)	2002	5c
0505B	Grace Creek	0505B_01	Bacteria in water (Recreation Use)	2000	5b
		0505B_02	Bacteria in water (Recreation Use)	2000	5b
0505G	Wards Creek	0505G_01	Depressed dissolved oxygen in water	2000	5c
0505O	Hills Lake	0505O_01	Mercury in edible tissue	2006	5c
0506A	Harris Creek	0506A_01	Depressed dissolved oxygen in water	2000	5c
0507G	South Fork of Sabine River	0507G_01	Bacteria in water (Recreation Use)	2006	5b
0512A	Running Creek	0512A_01	Bacteria in water (Recreation Use)	2002	5b
0512B	Elm Creek	0512B_01	Bacteria in water (Recreation Use)	2002	5b
0513	Big Cow Creek	0513_01	Bacteria in water (Recreation Use)	2018	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0514	Big Sandy Creek	0514_01	Bacteria in water (Recreation Use)	2006	5c
		0514_02	pH	2018	5c
0601	Neches River Tidal	0601_01	Bacteria in water (Recreation Use)	2012	5a
			PCBs in edible tissue	2012	5a
		0601_02	Bacteria in water (Recreation Use)	2012	5a
			PCBs in edible tissue	2012	5a
		0601_03	Bacteria in water (Recreation Use)	2012	5a
			PCBs in edible tissue	2012	5a
		0601_04	Bacteria in water (Recreation Use)	2012	5a
			PCBs in edible tissue	2012	5a
0601A	Star Lake Canal	0601A_01	Bacteria in water (Recreation Use)	2012	5c
0602	Neches River Below B. A. Steinhagen Lake	0602_02	Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	2010	5c
		0602_03	Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	2010	5c
		0602_04	Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	2010	5c
0603	B. A. Steinhagen Lake	0603_01	Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	1998	5c
		0603_02	Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	1998	5c
0603A	Sandy Creek	0603A_01	Bacteria in water (Recreation Use)	2000	5a
0603B	Wolf Creek	0603B_01	Bacteria in water (Recreation Use)	2006	5a
0604	Neches River Below Lake Palestine	0604_01	Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	2010	5c
		0604_02	Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	2010	5c
		0604_03	Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	2010	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0604A	Cedar Creek	0604A_02	Bacteria in water (Recreation Use)	2000	5a
		0604A_03	Bacteria in water (Recreation Use) Depressed dissolved oxygen in water	2000 2020	5c 5c
0604B	Hurricane Creek	0604B_01	Bacteria in water (Recreation Use)	2000	5a
0604C	Jack Creek	0604C_01	Bacteria in water (Recreation Use)	2000	5a
0604D	Piney Creek	0604D_01	Depressed dissolved oxygen in water	2004	5b
		0604D_02	Bacteria in water (Recreation Use)	2006	5b
0604M	Biloxi Creek	0604M_03	Bacteria in water (Recreation Use) Depressed dissolved oxygen in water	2004 2006	5a 5c
0604T	Lake Ratcliff	0604T_01	Mercury in edible tissue	2002	5c
0605	Lake Palestine	0605_01	pH	2006	5c
		0605_02	pH	2006	5b
		0605_03	pH	2006	5b
		0605_09	pH	2006	5b
		0605_10	pH	2006	5b
0605A	Kickapoo Creek in Henderson County	0605A_01	Bacteria in water (Recreation Use) Depressed dissolved oxygen in water	2000 2006	5c 5c
		0605A_02	Bacteria in water (Recreation Use)	2000	5c
0606	Neches River Above Lake Palestine	0606_01	Bacteria in water (Recreation Use)	2008	5c
		0606_02	Bacteria in water (Recreation Use) Depressed dissolved oxygen in water	2008 2004	5c 5b
0606A	Prairie Creek	0606A_01	Bacteria in water (Recreation Use)	2002	5b
		0606A_03	Bacteria in water (Recreation Use)	2002	5b
0606D	Black Fork Creek	0606D_02	Bacteria in water (Recreation Use)	2012	5b
0607	Pine Island Bayou	0607_01	Depressed dissolved oxygen in water	2000	5b
		0607_02	Depressed dissolved oxygen in water	2000	5b
		0607_03	Depressed dissolved oxygen in water	2000	5b
		0607_04	Depressed dissolved oxygen in water	2000	5b

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0607A	Boggy Creek	0607A_02	Bacteria in water (Recreation Use)	2022	5c
			Depressed dissolved oxygen in water	2000	5b
0607B	Little Pine Island Bayou	0607B_01	Depressed dissolved oxygen in water	2000	5b
0607C	Willow Creek	0607C_01	Bacteria in water (Recreation Use)	2022	5c
			Depressed dissolved oxygen in water	2000	5b
0608	Village Creek	0608_01	Mercury in edible tissue	2010	5c
		0608_02	Mercury in edible tissue	2010	5c
		0608_03	Mercury in edible tissue	2010	5c
0608A	Beech Creek	0608A_01	Copper in water	2014	5c
0608C	Cypress Creek	0608C_01	Depressed dissolved oxygen in water	2000	5b
0608E	Mill Creek in Hardin County	0608E_01	Depressed dissolved oxygen in water	2006	5c
0608G	Lake Kimball	0608G_01	Mercury in edible tissue	2000	5c
0609	Angelina River Below Sam Rayburn Reservoir	0609_01	Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	2014	5c
0610	Sam Rayburn Reservoir	0610_01	Dioxin in edible tissue	2014	5a
			Excessive algal growth in water	2022	5c
			Mercury in edible tissue	1996	5c
		0610_02	Dioxin in edible tissue	2014	5a
			Excessive algal growth in water	2022	5c
			Mercury in edible tissue	1996	5c
		0610_03	Dioxin in edible tissue	2014	5a
			Excessive algal growth in water	2022	5c
			Mercury in edible tissue	1996	5c
		0610_04	Dioxin in edible tissue	2014	5a
			Excessive algal growth in water	2022	5c
			Mercury in edible tissue	1996	5c
		0610_05	Dioxin in edible tissue	2014	5a
			Excessive algal growth in water	2022	5c
			Mercury in edible tissue	1996	5c
pH	2022		5c		

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0610	Sam Rayburn Reservoir	0610_06	Dioxin in edible tissue	2014	5a
			Excessive algal growth in water	2022	5c
			Mercury in edible tissue	1996	5c
		0610_07	Dioxin in edible tissue	2014	5a
			Excessive algal growth in water	2022	5c
			Mercury in edible tissue	1996	5c
		0610_08	Dioxin in edible tissue	2014	5a
			Excessive algal growth in water	2022	5c
			Mercury in edible tissue	1996	5c
		0610_09	Dioxin in edible tissue	2014	5a
			Excessive algal growth in water	2022	5c
			Mercury in edible tissue	1996	5c
0610_10	Dioxin in edible tissue	2014	5a		
	Excessive algal growth in water	2022	5c		
	Mercury in edible tissue	1996	5c		
0610A	Ayish Bayou	0610A_01	Bacteria in water (Recreation Use)	2000	5c
		0610A_02	Bacteria in water (Recreation Use)	2000	5c
0610P	Bayou Carrizo	0610P_01	Bacteria in water (Recreation Use)	2022	5c
0611	Angelina River Above Sam Rayburn Reservoir	0611_01	Bacteria in water (Recreation Use)	2000	5c
		0611_03	Bacteria in water (Recreation Use)	2000	5c
		0611_04	Bacteria in water (Recreation Use)	2000	5c
0611A	East Fork Angelina River	0611A_01	Bacteria in water (Recreation Use)	2002	5c
		0611A_02	Bacteria in water (Recreation Use)	2002	5c
0611B	La Nana Bayou	0611B_01	Bacteria in water (Recreation Use)	2000	5b
		0611B_02	Bacteria in water (Recreation Use)	2000	5b
		0611B_03	Bacteria in water (Recreation Use)	2000	5b
0611C	Mud Creek	0611C_01	Bacteria in water (Recreation Use)	2010	5b
		0611C_02	Bacteria in water (Recreation Use)	2010	5b
0611D	West Mud Creek	0611D_01	Bacteria in water (Recreation Use)	2010	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0612	Attoyac Bayou	0612_01	Bacteria in water (Recreation Use)	2004	5c
		0612_02	Bacteria in water (Recreation Use)	2004	5c
		0612_03	Bacteria in water (Recreation Use)	2004	5c
0612F	West Creek	0612F_01	Bacteria in water (Recreation Use)	2022	5c
0613	Lake Tyler/Lake Tyler East	0613_03	Excessive algal growth in water	2022	5c
		0613_04	Excessive algal growth in water	2022	5c
0615	Angelina River/Sam Rayburn Reservoir	0615_01	Depressed dissolved oxygen in water	2002	5c
			Dioxin in edible tissue	2014	5a
			Mercury in edible tissue	2002	5c
0615A	Paper Mill Creek	0615A_01	Bacteria in water (Recreation Use)	2006	5b
0701	Taylor Bayou/North Fork Taylor Bayou Above Tidal	0701_01	Depressed dissolved oxygen in water	1996	5c
		0701_02	Depressed dissolved oxygen in water	1996	5c
0701D	Shallow Prong Lake	0701D_01	Depressed dissolved oxygen in water	2004	5c
0702	Intracoastal Waterway Tidal	0702_01	Bacteria in water (Recreation Use)	2012	5c
			Bacteria in water (Recreation Use)	2012	5c
		0702_03	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
0702A	Alligator Bayou and Main Canals A, B, C, and D	0702A_01	Toxicity in sediment	1998	5c
		0702A_03	Toxicity in water	1998	5c
0703	Sabine-Neches Canal Tidal	0703_01	Bacteria in water (Recreation Use)	2014	5c
0704	Hillebrandt Bayou	0704_01	Depressed dissolved oxygen in water	1998	5c
0801C	Cotton Bayou Tidal	0801C_01	Bacteria in water (Recreation Use)	2010	5b
			Depressed dissolved oxygen in water	2006	5b
0802	Trinity River Below Lake Livingston	0802_01	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0802_02	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0802_03	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0802	Trinity River Below Lake Livingston	0802_04	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0802_05	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
0803	Lake Livingston	0803_01	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_02	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_03	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_04	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_05	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_06	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_07	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_08	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_09	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_10	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_11	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
		0803_12	Dioxin in edible tissue	2016	5a
			PCBs in edible tissue	2016	5a
0803G	Lake Madisonville	0803G_01	Mercury in edible tissue	2010	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0804	Trinity River Above Lake Livingston	0804_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		0804_02	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		0804_03	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		0804_04	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		0804_05	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		0804_06	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		0804_07	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
0804G	Catfish Creek	0804G_01	Bacteria in water (Recreation Use)	2010	5b
			Depressed dissolved oxygen in water	2006	5c
0804H	Upper Keechi Creek	0804H_01	Bacteria in water (Recreation Use)	2022	5c
			Depressed dissolved oxygen in water	2010	5c
0804K	Lower Keechi Creek	0804K_01	Bacteria in water (Recreation Use)	2018	5b
0804L	Town Creek	0804L_01	Bacteria in water (Recreation Use)	2020	5c
0804M	Bassett Creek	0804M_01	Impaired fish community in water	2018	5c
			Impaired macrobenthic community in water	2018	5c
0805	Upper Trinity River	0805_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2002	5a
		0805_02	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2002	5a
		0805_03	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2002	5a
		0805_04	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2002	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category	
0805	Upper Trinity River	0805_06	Dioxin in edible tissue	2010	5a	
			PCBs in edible tissue	2002	5a	
0806	West Fork Trinity River Below Lake Worth	0806_01	Dioxin in edible tissue	2010	5a	
			PCBs in edible tissue	1996	5a	
		0806_02	Dioxin in edible tissue	2010	5a	
			PCBs in edible tissue	1996	5a	
0806B	Echo Lake	0806B_01	Dieldrin in edible tissue	2016	5a	
			Dioxin in edible tissue	2016	5a	
0806D	Marine Creek	0806D_01	Bacteria in water (Recreation Use)	2006	5c	
0807	Lake Worth	0807_01	Dioxin in edible tissue	2018	5a	
0808	West Fork Trinity River Below Eagle Mountain Reservoir	0808_01	Dioxin in edible tissue	2022	5a	
0809B	Ash Creek	0809B_01	Bacteria in water (Recreation Use)	2014	5b	
0809C	Dosier Creek	0809C_01	Bacteria in water (Recreation Use)	2020	5b	
0809D	Derrett Creek	0809D_01	Bacteria in water (Recreation Use)	2020	5b	
0810	West Fork Trinity River Below Bridgeport Reservoir	0810_01	Bacteria in water (Recreation Use)	1998	5c	
0810C	Martin Branch	0810C_01	Bacteria in water (Recreation Use)	2006	5c	
0811	Bridgeport Reservoir	0811_01	Excessive algal growth in water	2022	5c	
			0811_02	Excessive algal growth in water	2022	5c
			0811_03	Excessive algal growth in water	2022	5c
			0811_04	Excessive algal growth in water	2022	5c
			0811_05	Excessive algal growth in water	2022	5c
0811A	Big Creek	0811A_01	Bacteria in water (Recreation Use)	2022	5c	
0811B	Beans Creek	0811B_01	Bacteria in water (Recreation Use)	2020	5b	
0812	West Fork Trinity River Above Bridgeport Reservoir	0812_01	Bacteria in water (Recreation Use)	2016	5c	
			Chloride in water	1998	5c	
		0812_02	Total dissolved solids in water	1998	5c	
			Chloride in water	1998	5c	
0813	Houston County Lake	0813_01	Excessive algal growth in water	2022	5c	
0814	Chambers Creek Above Richland-Chambers Reservoir	0814_02	Bacteria in water (Recreation Use)	2020	5b	
0815	Bardwell Reservoir	0815_01	Sulfate in water	2016	5c	

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0818	Cedar Creek Reservoir	0818_02	pH	2002	5b
		0818_03	pH	2002	5b
		0818_04	pH	2002	5b
		0818_05	pH	2002	5b
		0818_07	pH	2002	5b
		0818_08	pH	2002	5b
		0818_09	pH	2002	5b
		0818_11	pH	2002	5b
		0818_12	pH	2002	5b
0818B	Cedar Creek above Cedar Creek Reservoir	0818B_01	Bacteria in water (Recreation Use)	2018	5b
0818C	Kings Creek	0818C_01	Bacteria in water (Recreation Use)	2018	5b
0818D	Lacy Fork	0818D_01	Bacteria in water (Recreation Use)	2022	5c
0818G	North Twin Creek	0818G_01	Bacteria in water (Recreation Use)	2022	5c
0819	East Fork Trinity River	0819_01	Bacteria in water (Recreation Use)	2020	5c
0820B	Rowlett Creek	0820B_01	Bacteria in water (Recreation Use)	2014	5c
0821A	Pilot Grove Creek	0821A_02	Bacteria in water (Recreation Use)	2022	5c
0821C	Wilson Creek	0821C_01	Bacteria in water (Recreation Use)	2010	5c
0821D	East Fork Trinity River above Lake Lavon	0821D_01	Bacteria in water (Recreation Use)	2010	5c
0823C	Clear Creek	0823C_01	Bacteria in water (Recreation Use)	2020	5c
0824	Elm Fork Trinity River Above Ray Roberts Lake	0824_03	Bacteria in water (Recreation Use)	2016	5c
0826	Grapevine Lake	0826_07	pH	2012	5c
0827A	White Rock Creek above White Rock Lake	0827A_01	Bacteria in water (Recreation Use)	2016	5c
0828A	Village Creek	0828A_01	Bacteria in water (Recreation Use)	2010	5c
0829	Clear Fork Trinity River Below Benbrook Lake	0829_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	1996	5a
		0829_02	Bacteria in water (Recreation Use)	2018	5c
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	1996	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
0829	Clear Fork Trinity River Below Benbrook Lake	0829_03	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	1996	5a
0829A	Lake Como	0829A_01	Dioxin in edible tissue	2016	5a
0831	Clear Fork Trinity River Below Lake Weatherford	0831_01	Bacteria in water (Recreation Use)	2016	5c
		0831_04	Depressed dissolved oxygen in water	1996	5c
0833	Clear Fork Trinity River Above Lake Weatherford	0833_04	Depressed dissolved oxygen in water	1998	5b
0833A	Clear Fork Trinity River Above Strickland Creek.	0833A_01	Depressed dissolved oxygen in water	1998	5c
0836	Richland-Chambers Reservoir	0836_07	Bacteria in water (Recreation Use)	2018	5c
0836B	Cedar Creek	0836B_01	Depressed dissolved oxygen in water	2010	5b
0836C	Grape Creek	0836C_01	Depressed dissolved oxygen in water	2022	5c
0837	Richland Creek Above Richland-Chambers Reservoir	0837_01	Bacteria in water (Recreation Use)	2020	5c
0841	Lower West Fork Trinity River	0841_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	1996	5a
		0841_02	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	1996	5a
0841A	Mountain Creek Lake	0841A_01	Dioxin in edible tissue	2016	5a
0841I	Dry Branch Creek	0841I_01	Bacteria in water (Recreation Use)	2020	5b
0841P	North Fork Cottonwood Creek	0841P_01	Bacteria in water (Recreation Use)	2020	5a
0901	Cedar Bayou Tidal	0901_01	Bacteria in water (Recreation Use)	2006	5c
			Dioxin in edible tissue	2002	5a
			PCBs in edible tissue	2008	5a
0901A	Cary Bayou	0901A_01	Bacteria in water (Recreation Use)	2018	5c
			Depressed dissolved oxygen in water	2018	5c
0902	Cedar Bayou Above Tidal	0902_01	Bacteria in water (Recreation Use)	2018	5c
			Depressed dissolved oxygen in water	2018	5c
1001	San Jacinto River Tidal	1001_01	Dioxin in edible tissue	2000	5a
			PCBs in edible tissue	2002	5a
		1001_02	Dioxin in edible tissue	2000	5a
			PCBs in edible tissue	2002	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1001D	Bear Lake	1001D_01	Dioxin in edible tissue	2022	5a
			PCBs in edible tissue	2022	5a
1002A	Tarkington Bayou	1002A_01	Bacteria in water (Recreation Use)	2022	5c
1002C	Lake Isabell	1002C_01	Mercury in edible tissue	2010	5c
1003A	Winters Bayou	1003A_01	Bacteria in water (Recreation Use)	2022	5c
1004J	White Oak Creek	1004J_01	Bacteria in water (Recreation Use)	2020	5a
1005	Houston Ship Channel/San Jacinto River Tidal	1005_01	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1005_02	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1005_03	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1005_04	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
1006	Houston Ship Channel Tidal	1006_01	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1006_02	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1006_03	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1006_04	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
			Toxicity in sediment	2000	5c
		1006_05	Bacteria in water (General Use)	2006	5c
			Dioxin in edible tissue	1996	5a
		1006_06	PCBs in edible tissue	2002	5a
			Dioxin in edible tissue	1996	5a
		1006_07	PCBs in edible tissue	2002	5a
Dioxin in edible tissue	1996		5a		
			PCBs in edible tissue	2002	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1007	Houston Ship Channel/Buffalo Bayou Tidal	1007_01	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1007_02	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1007_03	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1007_04	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1007_05	Bacteria in water (General Use)	2006	5c
			Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
			Toxicity in sediment	2000	5c
		1007_06	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
		1007_07	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2002	5a
1007_08	Dioxin in edible tissue	1996	5a		
	PCBs in edible tissue	2002	5a		
1007H	Pine Gully Above Tidal	1007H_01	Depressed dissolved oxygen in water	2010	5c
1007I	Plum Creek Above Tidal	1007I_01	Depressed dissolved oxygen in water	2010	5c
1007K	Country Club Bayou Above Tidal	1007K_01	Depressed dissolved oxygen in water	2002	5c
1007O	Unnamed Non-Tidal Tributary of Buffalo Bayou	1007O_01	Depressed dissolved oxygen in water	2002	5c
1007R	Hunting Bayou Above Tidal	1007R_01	Depressed dissolved oxygen in water	2002	5c
		1007R_04	Depressed dissolved oxygen in water	2002	5c
1010	Caney Creek	1010_03	Bacteria in water (Recreation Use)	2006	5a
1013A	Little White Oak Bayou	1013A_01	Depressed dissolved oxygen in water	2002	5c
1013C	Unnamed Non-Tidal Tributary of Buffalo Bayou Tidal	1013C_01	Depressed dissolved oxygen in water	2014	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category	
1014M	Newman Branch (Neimans Bayou)	1014M_01	Depressed dissolved oxygen in water	2002	5b	
			Impaired fish community in water	2010	5b	
			Impaired macrobenthic community in water	2010	5b	
1016D	Unnamed Tributary of Greens Bayou	1016D_01	Depressed dissolved oxygen in water	2002	5c	
1017D	Unnamed Tributary of Whiteoak Bayou	1017D_01	Depressed dissolved oxygen in water	2002	5c	
1101	Clear Creek Tidal	1101_01	Dioxin in edible tissue	2010	5a	
			PCBs in edible tissue	2010	5a	
		1101_02	Dioxin in edible tissue	2010	5a	
			PCBs in edible tissue	2010	5a	
		1101_03	Dioxin in edible tissue	2010	5a	
			PCBs in edible tissue	2010	5a	
1101_04	Dioxin in edible tissue	2010	5a			
	PCBs in edible tissue	2010	5a			
1101D	Robinson Bayou	1101D_01	Depressed dissolved oxygen in water	2022	5c	
1101E	Unnamed Tributary of Clear Creek Tidal	1101E_01	Depressed dissolved oxygen in water	2010	5b	
1102	Clear Creek Above Tidal	1102_01	PCBs in edible tissue	2010	5a	
			1102_02	PCBs in edible tissue	2010	5a
			1102_03	PCBs in edible tissue	2010	5a
			1102_04	PCBs in edible tissue	2010	5a
			1102_05	PCBs in edible tissue	2010	5a
1103	Dickinson Bayou Tidal	1103_01	Depressed dissolved oxygen in water	1996	5b	
			Dioxin in edible tissue	2010	5a	
			PCBs in edible tissue	2010	5a	
		1103_02	Depressed dissolved oxygen in water	1996	5b	
			Dioxin in edible tissue	2010	5a	
			PCBs in edible tissue	2010	5a	
		1103_03	Depressed dissolved oxygen in water	1996	5b	
			Dioxin in edible tissue	2010	5a	
			PCBs in edible tissue	2010	5a	

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1103	Dickinson Bayou Tidal	1103_04	Depressed dissolved oxygen in water	1996	5b
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
1103A	Bensons Bayou	1103A_01	Depressed dissolved oxygen in water	2016	5b
1103B	Bordens Gully	1103B_01	Depressed dissolved oxygen in water	2018	5b
1103C	Geisler Bayou	1103C_01	Depressed dissolved oxygen in water	2010	5b
1103F	Unnamed Tributary of Dickinson Bayou Tidal	1103F_01	Bacteria in water (Recreation Use)	2020	5a
			Depressed dissolved oxygen in water	2020	5b
1103G	Unnamed Tributary of Gum Bayou	1103G_01	Bacteria in water (Recreation Use)	2018	5a
1105	Bastrop Bayou Tidal	1105_01	Bacteria in water (Recreation Use)	2012	5c
1105A	Flores Bayou	1105A_03	Bacteria in water (Recreation Use)	2010	5b
1105B	Austin Bayou Tidal	1105B_01	Bacteria in water (Recreation Use)	2014	5c
1105C	Austin Bayou Above Tidal	1105C_01	Bacteria in water (Recreation Use)	2014	5b
1105E	Brushy Bayou	1105E_01	Bacteria in water (Recreation Use)	2010	5b
			Depressed dissolved oxygen in water	2010	5c
1107	Chocolate Bayou Tidal	1107_01	Bacteria in water (Recreation Use)	2010	5a
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
1108	Chocolate Bayou Above Tidal	1108_01	Bacteria in water (Recreation Use)	2014	5a
1109	Oyster Creek Tidal	1109_01	Bacteria in water (Recreation Use)	2012	5a
1110	Oyster Creek Above Tidal	1110_01	Bacteria in water (Recreation Use)	2006	5a
			Depressed dissolved oxygen in water	1996	5c
		1110_03	Depressed dissolved oxygen in water	1996	5c
1113	Armand Bayou Tidal	1113_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		1113_02	Depressed dissolved oxygen in water	1996	5b
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1113	Armand Bayou Tidal	1113_03	Depressed dissolved oxygen in water	1996	5b
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
1113A	Armand Bayou Above Tidal	1113A_01	Depressed dissolved oxygen in water	1998	5c
			Impaired fish community in water	2014	5b
			Impaired macrobenthic community in water	2014	5b
1202J	Big Creek	1202J_01	Bacteria in water (Recreation Use)	2002	5a
		1202J_02	Bacteria in water (Recreation Use)	2002	5a
1202K	Mill Creek	1202K_01	Bacteria in water (Recreation Use)	2010	5c
1202S	Bullhead Bayou East	1202S_01	Bacteria in water (Recreation Use)	2006	5c
1202T	Unnamed Tributary of Bullhead Bayou East	1202T_01	Bacteria in water (Recreation Use)	2006	5c
1202U	Alcorn Bayou	1202U_01	Bacteria in water (Recreation Use)	2010	5b
1204A	Camp Creek	1204A_01	Bacteria in water (Recreation Use)	2010	5c
1208	Brazos River Above Possum Kingdom Lake	1208_02	Bacteria in water (Recreation Use)	2008	5c
		1208_04	Bacteria in water (Recreation Use)	2008	5c
		1208_05	Bacteria in water (Recreation Use)	2008	5c
1209A	Country Club Lake	1209A_01	Toxicity in sediment	1999	5c
1209B	Fin Feather Lake	1209B_01	Toxicity in sediment	2000	5c
1209E	Wickson Creek	1209E_01	Bacteria in water (Recreation Use)	2006	5b
1209H	Duck Creek	1209H_01	Depressed dissolved oxygen in water	2012	5c
		1209H_02	Bacteria in water (Recreation Use)	2006	5c
			Depressed dissolved oxygen in water	2012	5c
1209I	Gibbons Creek	1209I_01	Bacteria in water (Recreation Use)	2002	5b
			Depressed dissolved oxygen in water	2016	5c
		1209I_02	Bacteria in water (Recreation Use)	2002	5b
1209J	Shepherd Creek	1209J_01	Bacteria in water (Recreation Use)	2002	5c
1209K	Steele Creek	1209K_02	Bacteria in water (Recreation Use)	2002	5b
1210A	Navasota River Above Lake Mexia	1210A_01	Bacteria in water (Recreation Use)	2002	5c
1211A	Davidson Creek	1211A_02	Bacteria in water (Recreation Use)	2002	5c
			Depressed dissolved oxygen in water	2010	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1212	Somerville Lake	1212_01	pH	2002	5c
		1212_03	pH	2002	5c
		1212_04	pH	2002	5c
1212A	Middle Yegua Creek	1212A_02	Bacteria in water (Recreation Use)	2010	5c
1213A	Big Elm Creek	1213A_01	Bacteria in water (Recreation Use)	2010	5b
1216D	Unnamed tributary of Trimmier Creek	1216D_01	Bacteria in water (Recreation Use)	2022	5c
1217	Lampasas River Above Stillhouse Hollow Lake	1217_05	Bacteria in water (Recreation Use)	2002	5c
1218	Nolan Creek/ South Nolan Creek	1218_01	Bacteria in water (Recreation Use)	1996	5c
		1218_02	Bacteria in water (Recreation Use)	1996	5c
1218C	Little Nolan Creek	1218C_01	Bacteria in water (Recreation Use)	2010	5c
1218D	Long Branch	1218D_01	Bacteria in water (Recreation Use)	2020	5b
1221	Leon River Below Proctor Lake	1221_06	Bacteria in water (Recreation Use)	1996	5c
1221A	Resley Creek	1221A_01	Bacteria in water (Recreation Use)	2004	5b
			Depressed dissolved oxygen in water	2006	5c
		1221A_02	Bacteria in water (Recreation Use)	2004	5b
1221C	Pecan Creek	1221C_01	Bacteria in water (Recreation Use)	2006	5c
1221D	Indian Creek	1221D_01	Bacteria in water (Recreation Use)	2006	5b
		1221D_02	Bacteria in water (Recreation Use)	2006	5b
1221G	Coryell Creek	1221G_01	Bacteria in water (Recreation Use)	2020	5c
1222A	Duncan Creek	1222A_01	Bacteria in water (Recreation Use)	1999	5c
1222B	Rush-Copperas Creek	1222B_01	Bacteria in water (Recreation Use)	2006	5c
1222C	Sabana River	1222C_01	Bacteria in water (Recreation Use)	2006	5c
1222E	Sweetwater Creek	1222E_01	Bacteria in water (Recreation Use)	2006	5c
1223	Leon River Below Leon Reservoir	1223_01	Bacteria in water (Recreation Use)	2006	5c
			Depressed dissolved oxygen in water	2008	5c
1226B	Green Creek	1226B_01	Depressed dissolved oxygen in water	2006	5c
1226G	Spring Creek	1226G_01	Bacteria in water (Recreation Use)	2018	5b
1226K	Little Duffau Creek	1226K_01	Bacteria in water (Recreation Use)	2006	5c
1227	Nolan River	1227_01	Sulfate in water	2002	5b
			Total dissolved solids in water	2006	5b

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1227	Nolan River	1227_02	Bacteria in water (Recreation Use)	2018	5c
			Sulfate in water	2002	5b
			Total dissolved solids in water	2006	5b
1228	Lake Pat Cleburne	1228_01	Excessive algal growth in water	2022	5c
1231	Lake Graham	1231_01	Excessive algal growth in water	2022	5c
1232	Clear Fork Brazos River	1232_04	Bacteria in water (Recreation Use)	2018	5c
1232A	California Creek	1232A_01	Bacteria in water (Recreation Use)	2010	5c
			Impaired fish community in water	2016	5c
1237	Lake Sweetwater	1237_01	Chloride in water	2022	5c
			Sulfate in water	2022	5c
			Total dissolved solids in water	2022	5c
1238	Salt Fork Brazos River	1238_01	Chloride in water	2002	5c
		1238_02	Chloride in water	2002	5c
		1238_03	Bacteria in water (Recreation Use)	2020	5c
			Chloride in water	2002	5c
1238B	Duck Creek	1238B_01	Bacteria in water (Recreation Use)	2022	5c
1240	White River Lake	1240_01	Chloride in water	2002	5b
			Total dissolved solids in water	2006	5b
1241	Double Mountain Fork Brazos River	1241_01	Bacteria in water (Recreation Use)	2010	5c
1241A	North Fork Double Mountain Fork Brazos River	1241A_02	Bacteria in water (Recreation Use)	2004	5c
1241B	Lake Alan Henry	1241B_01	Mercury in edible tissue	2010	5c
1242B	Cottonwood Branch	1242B_01	Bacteria in water (Recreation Use)	2006	5c
1242C	Still Creek	1242C_02	Bacteria in water (Recreation Use)	2006	5c
1242D	Thompsons Creek	1242D_01	Bacteria in water (Recreation Use)	2002	5b
			Bacteria in water (Recreation Use)	2002	5b
			Depressed dissolved oxygen in water	2006	5b
1242F	Pond Creek	1242F_01	Bacteria in water (Recreation Use)	2010	5c
1242I	Campbells Creek	1242I_01	Bacteria in water (Recreation Use)	2002	5c
1242J	Deer Creek	1242J_01	Bacteria in water (Recreation Use)	2006	5c
1242K	Mud Creek	1242K_01	Bacteria in water (Recreation Use)	2002	5b
1242L	Pin Oak Creek	1242L_01	Bacteria in water (Recreation Use)	2002	5b

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1242M	Spring Creek	1242M_01	Bacteria in water (Recreation Use)	2002	5b
1242N	Tehuacana Creek	1242N_01	Bacteria in water (Recreation Use)	2002	5c
1242O	Walnut Creek	1242O_01	Bacteria in water (Recreation Use)	2006	5b
1242P	Big Creek	1242P_01	Bacteria in water (Recreation Use)	2002	5b
1244	Brushy Creek	1244_01	Bacteria in water (Recreation Use)	2006	5c
		1244_03	Bacteria in water (Recreation Use)	2006	5c
1245I	Steep Bank Creek	1245I_01	Bacteria in water (Recreation Use)	2010	5c
1246E	Wasp Creek	1246E_01	Bacteria in water (Recreation Use)	2002	5b
1247A	Willis Creek	1247A_01	Bacteria in water (Recreation Use)	2002	5c
1248C	Mankins Branch	1248C_01	Bacteria in water (Recreation Use)	2004	5c
1252	Lake Limestone	1252_03	pH	2016	5c
1255	Upper North Bosque River	1255_01	Bacteria in water (Recreation Use)	1996	5c
		1255_02	Bacteria in water (Recreation Use)	1996	5c
			Depressed dissolved oxygen in water	2008	5c
1255A	Goose Branch	1255A_01	Bacteria in water (Recreation Use)	2002	5c
1255C	Scarborough Creek	1255C_01	Bacteria in water (Recreation Use)	2002	5c
1255D	South Fork North Bosque River	1255D_01	Bacteria in water (Recreation Use)	2010	5c
1255E	Unnamed Tributary of Goose Branch	1255E_01	Bacteria in water (Recreation Use)	2002	5c
1255G	Woodhollow Branch	1255G_01	Bacteria in water (Recreation Use)	2002	5c
1259	Leon River Above Belton Lake	1259_01	Bacteria in water (Recreation Use)	1996	5c
		1259_03	Bacteria in water (Recreation Use)	1996	5c
1301	San Bernard River Tidal	1301_01	Bacteria in water (Recreation Use)	2006	5c
1302	San Bernard River Above Tidal	1302_01	Bacteria in water (Recreation Use)	2002	5c
		1302_02	Bacteria in water (Recreation Use)	2002	5c
		1302_03	Bacteria in water (Recreation Use)	2002	5c
1302A	Gum Tree Branch	1302A_01	Bacteria in water (Recreation Use)	2006	5c
1302B	West Bernard Creek	1302B_01	Bacteria in water (Recreation Use)	2006	5c
			Depressed dissolved oxygen in water	2006	5c
		1302B_02	Bacteria in water (Recreation Use)	2006	5c
1302E	Mound Creek	1302E_01	Depressed dissolved oxygen in water	2020	5c
1304	Caney Creek Tidal	1304_02	Bacteria in water (Recreation Use)	2006	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1305	Caney Creek Above Tidal	1305_03	Depressed dissolved oxygen in water	1999	5c
1402C	Buckners Creek	1402C_01	Depressed dissolved oxygen in water	2010	5c
1402H	Skull Creek	1402H_01	Depressed dissolved oxygen in water	2008	5b
1403A	Bull Creek	1403A_04	Depressed dissolved oxygen in water	2010	5c
1405	Marble Falls Lake	1405_01	Excessive algal growth in water	2022	5c
		1405_02	Excessive algal growth in water	2022	5c
1406	Lake Lyndon B. Johnson	1406_01	Excessive algal growth in water	2022	5c
		1406_02	Excessive algal growth in water	2022	5c
		1406_03	Excessive algal growth in water	2022	5c
		1406_04	Excessive algal growth in water	2022	5c
		1406_05	Excessive algal growth in water	2022	5c
		1406_06	Excessive algal growth in water	2022	5c
1407A	Clear Creek	1407A_01	Aluminum in water	2010	5c
			Copper in water	2018	5c
			Nickel in water	2014	5c
			Sulfate in water	2010	5c
			Total dissolved solids in water	2010	5c
			Zinc in water	2014	5c
			pH	2010	5c
1411	E. V. Spence Reservoir	1411_01	Chloride in water	2014	5c
		1411_02	Bacteria in water (Recreation Use)	2022	5c
			Chloride in water	2014	5c
1412	Colorado River Below Lake J. B. Thomas	1412_02	Bacteria in water (Recreation Use)	2008	5b
1412B	Beals Creek	1412B_03	Bacteria in water (Recreation Use)	2010	5b
1416	San Saba River	1416_01	Bacteria in water (Recreation Use)	2008	5c
1416A	Brady Creek	1416A_03	Depressed dissolved oxygen in water	2004	5c
1419	Lake Coleman	1419_01	Excessive algal growth in water	2022	5c
1421	Concho River	1421_08	Depressed dissolved oxygen in water	2008	5c
1429	Lady Bird Lake (formerly Town Lake)	1429_01	Excessive algal growth in water	2022	5c
		1429_02	Excessive algal growth in water	2022	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1429C	Waller Creek	1429C_01	Bacteria in water (Recreation Use)	2004	5c
			Impaired macrobenthic community in water	2002	5c
1501	Tres Palacios Creek Tidal	1501_01	Depressed dissolved oxygen in water	1999	5b
1602	Lavaca River Above Tidal	1602_02	Bacteria in water (Recreation Use)	2008	5a
1602C	Lavaca River Above Campbell Branch	1602C_01	Depressed dissolved oxygen in water	2004	5c
		1602C_02	Depressed dissolved oxygen in water	2004	5c
1801	Guadalupe River Tidal	1801_01	Bacteria in water (Recreation Use)	2022	5c
1803A	Elm Creek	1803A_01	Depressed dissolved oxygen in water	1999	5b
1803B	Sandies Creek	1803B_01	Bacteria in water (Recreation Use)	2002	5b
			Depressed dissolved oxygen in water	1999	5b
		1803B_02	Bacteria in water (Recreation Use)	2002	5b
			Depressed dissolved oxygen in water	1999	5b
1803C	Peach Creek	1803C_01	Bacteria in water (Recreation Use)	2002	5b
			Depressed dissolved oxygen in water	2006	5c
		1803C_03	Bacteria in water (Recreation Use)	2002	5b
			Depressed dissolved oxygen in water	2006	5c
1804A	Geronimo Creek	1804A_01	Bacteria in water (Recreation Use)	2006	5c
1805	Canyon Lake	1805_01	Mercury in edible tissue	2006	5c
		1805_02	Mercury in edible tissue	2006	5c
		1805_03	Mercury in edible tissue	2006	5c
		1805_04	Mercury in edible tissue	2006	5c
1806	Guadalupe River Above Canyon Lake	1806_08	Bacteria in water (Recreation Use)	2002	5c
1806A	Camp Meeting Creek	1806A_01	Bacteria in water (Recreation Use)	2018	5a
1811	Comal River	1811_01	Bacteria in water (Recreation Use)	2016	5c
1811A	Dry Comal Creek	1811A_01	Bacteria in water (Recreation Use)	2010	5c
1815	Cypress Creek	1815_01	Impaired fish community in water	2020	5c
			Impaired macrobenthic community in water	2020	5c
1817	North Fork Guadalupe River	1817_01	Impaired fish community in water	2020	5c
			Impaired macrobenthic community in water	2020	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1818	South Fork Guadalupe River	1818_01	Impaired fish community in water	2020	5c
			Impaired macrobenthic community in water	2020	5c
1901	Lower San Antonio River	1901_02	Impaired fish community in water	2012	5c
1901A	Escondido Creek	1901A_01	Bacteria in water (Recreation Use)	2014	5c
1901B	Cabeza Creek	1901B_01	Bacteria in water (Recreation Use)	2014	5c
1901F	Ecletto Creek	1901F_01	Bacteria in water (Recreation Use)	2020	5c
			Depressed dissolved oxygen in water	2016	5c
1902	Lower Cibolo Creek	1902_01	Bacteria in water (Recreation Use)	2004	5c
		1902_02	Bacteria in water (Recreation Use)	2004	5c
		1902_03	Bacteria in water (Recreation Use)	2004	5c
		1902_04	Bacteria in water (Recreation Use)	2004	5c
		1902_05	Bacteria in water (Recreation Use)	2004	5c
1902A	Martinez Creek	1902A_01	Bacteria in water (Recreation Use)	2016	5c
1902B	Salitrillo Creek	1902B_01	Bacteria in water (Recreation Use)	2010	5c
1902C	Clifton Branch	1902C_01	Bacteria in water (Recreation Use)	2014	5c
			Depressed dissolved oxygen in water	2014	5c
1903	Medina River Below Medina Diversion Lake	1903_01	Bacteria in water (Recreation Use)	2010	5c
		1903_02	Bacteria in water (Recreation Use)	2010	5c
		1903_03	Bacteria in water (Recreation Use)	2010	5c
1905	Medina River Above Medina Lake	1905_01	Bacteria in water (Recreation Use)	2020	5c
1906	Lower Leon Creek	1906_03	PCBs in edible tissue	2004	5a
		1906_04	PCBs in edible tissue	2004	5a
		1906_05	Bacteria in water (Recreation Use)	1996	5c
			PCBs in edible tissue	2004	5a
			PCBs in edible tissue	2004	5a
1908	Upper Cibolo Creek	1908_01	Bacteria in water (Recreation Use)	2006	5c
1910	Salado Creek	1910_02	Impaired fish community in water	2004	5c
			Impaired macrobenthic community in water	2006	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
1911	Upper San Antonio River	1911_08	Impaired fish community in water	2006	5c
			Impaired macrobenthic community in water	2020	5c
		1911_09	Impaired fish community in water	2006	5c
1911H	Picosa Creek	1911H_01	Depressed dissolved oxygen in water	2012	5c
1912	Medio Creek	1912_01	Bacteria in water (Recreation Use)	2018	5c
2004A	Aransas Creek	2004A_01	Bacteria in water (Recreation Use)	2006	5c
2004B	Poesta Creek	2004B_01	Bacteria in water (Recreation Use)	2014	5c
2105	Nueces River Above Holland Dam	2105_02	Depressed dissolved oxygen in water	2012	5c
2106	Nueces/Lower Frio River	2106_01	Total dissolved solids in water	2006	5b
			Bacteria in water (Recreation Use)	2014	5c
		2106_02	Total dissolved solids in water	2006	5b
2107	Lower Atascosa River	2107_01	Bacteria in water (Recreation Use)	1996	5b
			Total dissolved solids in water	2022	5c
2108	San Miguel Creek	2108_01	Bacteria in water (Recreation Use)	2006	5b
2109	Leona River	2109_01	Bacteria in water (Recreation Use)	2006	5c
			Bacteria in water (Recreation Use)	2006	5c
		2109_03	Bacteria in water (Recreation Use)	2006	5c
2113	Upper Frio River	2113_01	Depressed dissolved oxygen in water	2020	5c
			Impaired fish community in water	2006	5c
2116	Choke Canyon Reservoir	2116_01	Excessive algal growth in water	2020	5n
			Excessive algal growth in water	2020	5n
			Excessive algal growth in water	2020	5n
			Excessive algal growth in water	2020	5n
			Excessive algal growth in water	2020	5n
			Excessive algal growth in water	2020	5n
			Excessive algal growth in water	2020	5n
2117	Frio River Above Choke Canyon Reservoir	2117_01	Bacteria in water (Recreation Use)	2008	5c
			2117_02	Bacteria in water (Recreation Use)	2008

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
2118	Upper Atascosa River	2118_01	Bacteria in water (Recreation Use)	1996	5b
			Depressed dissolved oxygen in water	1996	5c
			Impaired fish community in water	2006	5c
			Impaired macrobenthic community in water	2010	5c
2118C	Atascosa River	2118C_01	Impaired fish community in water	2006	5c
			Impaired macrobenthic community in water	2010	5c
2201	Arroyo Colorado Tidal	2201_01	Bacteria in water (Recreation Use)	2006	5c
		2201_02	Bacteria in water (Recreation Use)	2006	5c
		2201_03	Bacteria in water (Recreation Use)	2006	5c
		2201_04	Bacteria in water (Recreation Use)	2006	5c
			Depressed dissolved oxygen in water	1996	5c
		2201_05	Bacteria in water (Recreation Use)	2006	5c
			Depressed dissolved oxygen in water	1996	5c
			Mercury in edible tissue	2008	5c
PCBs in edible tissue	2008		5a		
2201B	Unnamed Drainage Ditch Tributary (B) in Cameron County Drainage District #3	2201B_01	Bacteria in water (Recreation Use)	2010	5b
2202	Arroyo Colorado Above Tidal	2202_01	Bacteria in water (Recreation Use)	1996	5c
			Mercury in edible tissue	2008	5c
			PCBs in edible tissue	2008	5a
		2202_02	Bacteria in water (Recreation Use)	1996	5c
			Mercury in edible tissue	2008	5c
			PCBs in edible tissue	2008	5a
		2202_03	Bacteria in water (Recreation Use)	1996	5c
			Mercury in edible tissue	2008	5c
			PCBs in edible tissue	2008	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
2202	Arroyo Colorado Above Tidal	2202_04	Bacteria in water (Recreation Use)	1996	5c
			Mercury in edible tissue	2008	5c
			PCBs in edible tissue	2008	5a
2203	Petronila Creek Tidal	2203_01	Bacteria in water (Recreation Use)	2010	5c
2204	Petronila Creek Above Tidal	2204_01	Bacteria in water (Recreation Use)	2016	5b
		2204_02	Bacteria in water (Recreation Use)	2016	5b
2302	Rio Grande Below Falcon Reservoir	2302_03	Bacteria in water (Recreation Use)	1996	5c
2302A	Arroyo Los Olmos	2302A_01	Bacteria in water (Recreation Use)	2004	5b
			Depressed dissolved oxygen in water	2022	5c
2304	Rio Grande Below Amistad Reservoir	2304_01	Bacteria in water (Recreation Use)	1996	5c
		2304_02	Bacteria in water (Recreation Use)	1996	5c
		2304_03	Bacteria in water (Recreation Use)	1996	5c
		2304_07	Bacteria in water (Recreation Use)	1996	5c
		2304_09	Bacteria in water (Recreation Use)	1996	5c
2305	International Amistad Reservoir	2305_01	Chloride in water	2014	5c
		2305_02	Chloride in water	2014	5c
		2305_03	Chloride in water	2014	5c
		2305_04	Chloride in water	2014	5c
2306	Rio Grande Above Amistad Reservoir	2306_01	Sulfate in water	2010	5b
		2306_02	Sulfate in water	2010	5b
		2306_03	Sulfate in water	2010	5b
		2306_04	Sulfate in water	2010	5b
		2306_05	Sulfate in water	2010	5b
		2306_06	Sulfate in water	2010	5b
		2306_07	Sulfate in water	2010	5b
		2306_08	Sulfate in water	2010	5b
2307	Rio Grande Below Riverside Diversion Dam	2307_01	Chloride in water	1996	5c
			Total dissolved solids in water	1996	5c
		2307_02	Chloride in water	1996	5c
			Total dissolved solids in water	1996	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
2307	Rio Grande Below Riverside Diversion Dam	2307_03	Bacteria in water (Recreation Use)	2002	5c
			Chloride in water	1996	5c
			Total dissolved solids in water	1996	5c
		2307_04	Bacteria in water (Recreation Use)	2002	5c
			Chloride in water	1996	5c
			Total dissolved solids in water	1996	5c
		2307_05	Bacteria in water (Recreation Use)	2002	5c
			Chloride in water	1996	5c
			Total dissolved solids in water	1996	5c
2308	Rio Grande Below International Dam	2308_01	Bacteria in water (Recreation Use)	2014	5c
2310	Lower Pecos River	2310_01	Sulfate in water	2022	5c
			Total dissolved solids in water	2020	5c
		2310_02	Sulfate in water	2022	5c
			Total dissolved solids in water	2020	5c
2311	Upper Pecos River	2311_03	Depressed dissolved oxygen in water	2006	5b
2313	San Felipe Creek	2313_01	Bacteria in water (Recreation Use)	2014	5c
2314	Rio Grande Above International Dam	2314_01	Bacteria in water (Recreation Use)	2002	5c
2411	Sabine Pass	2411_01	PCBs in edible tissue	2012	5a
2412	Sabine Lake	2412_01	PCBs in edible tissue	2012	5a
2421	Upper Galveston Bay	2421_01	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2004	5a
		2421_02	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2004	5a
		2421_03	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2004	5a
2421A	Clear Lake Channel	2421A_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2421B	Little Cedar Bayou	2421B_01	Bacteria in water (Recreation Use)	2018	5c
2421HC	Sylvan Beach Park (Recreational Beaches)	2421HC_01	Bacteria in water (Recreational Beaches)	2022	5a

Draft 2022 Texas Integrated Report - Texas 303(d) List (Category 5)

Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
2422	Trinity Bay	2422_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2422_02	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2422B	Double Bayou West Fork	2422B_01	Bacteria in water (Recreation Use)	2006	5c
			Depressed dissolved oxygen in water	2004	5b
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2422D	Double Bayou East Fork Tidal	2422D_01	Bacteria in water (Recreation Use)	2014	5c
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2423	East Bay	2423_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2423_02	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2423A	Oyster Bayou	2423A_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2424	West Bay	2424_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2424_02	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2424A	Highland Bayou	2424A_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2424A_02	Bacteria in water (Recreation Use)	2002	5c
			Dioxin in edible tissue	2010	5a
		2424A_03	PCBs in edible tissue	2010	5a
			Bacteria in water (Recreation Use)	2002	5c
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
2424A	Highland Bayou	2424A_04	Bacteria in water (Recreation Use)	2002	5c
			Depressed dissolved oxygen in water	2002	5b
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2424A_05	Bacteria in water (Recreation Use)	2002	5c
			Depressed dissolved oxygen in water	2002	5b
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2424B	Lake Madeline	2424B_01	Depressed dissolved oxygen in water	2014	5c
			Dioxin in edible tissue	2022	5a
			PCBs in edible tissue	2022	5a
2424C	Marchand Bayou	2424C_01	Bacteria in water (Recreation Use)	2002	5c
			Depressed dissolved oxygen in water	2002	5b
2424D	Offatts Bayou	2424D_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2424D_02	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2424D_03	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2424E	English Bayou	2424E_01	Dioxin in edible tissue	2022	5a
			PCBs in edible tissue	2022	5a
2424F	Crash Basin	2424F_01	Dioxin in edible tissue	2022	5a
			PCBs in edible tissue	2022	5a
2424G	Highland Bayou Diversion Canal	2424G_01	Dioxin in edible tissue	2022	5a
			PCBs in edible tissue	2022	5a
2425	Clear Lake	2425_01	Copper in water	2016	5c
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2425A	Taylor Lake	2425A_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
2425A	Taylor Lake	2425A_02	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2425A_03	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2425B	Jarbo Bayou	2425B_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2425B_02	Bacteria in water (Recreation Use)	2002	5c
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2426	Tabbs Bay	2426_01	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2004	5a
2426C	Goose Creek Tidal	2426C_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2427	San Jacinto Bay	2427_01	Dioxin in edible tissue	1996	5a
			PCBs in edible tissue	2004	5a
2428	Black Duck Bay	2428_01	Dioxin in edible tissue	1998	5a
			PCBs in edible tissue	2004	5a
2429	Scott Bay	2429_01	Dioxin in edible tissue	1998	5a
			PCBs in edible tissue	2004	5a
2430	Burnet Bay	2430_01	Dioxin in edible tissue	1998	5a
			PCBs in edible tissue	2004	5a
2430A	Crystal Bay	2430A_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2431	Moses Lake	2431_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2431A	Moses Bayou Tidal	2431A_01	Bacteria in water (Recreation Use)	2014	5c
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2431C	Unnamed Tributary to the Southern Arm of Moses Lake (West)	2431C_01	Bacteria in water (Recreation Use)	2014	5c
2431E	Moses Bayou Above Tidal	2431E_01	Bacteria in water (Recreation Use)	2022	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
2432	Chocolate Bay	2432_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2432A	Mustang Bayou	2432A_01	Bacteria in water (Recreation Use)	2018	5a
		2432A_02	Bacteria in water (Recreation Use)	2018	5a
		2432A_03	Bacteria in water (Recreation Use)	2018	5c
2432B	Willow Bayou	2432B_01	Bacteria in water (Recreation Use)	2018	5a
2432C	Halls Bayou Tidal	2432C_01	Bacteria in water (Recreation Use)	2012	5a
			Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2432D	Persimmon Bayou	2432D_01	Bacteria in water (Recreation Use)	2020	5a
2432E	New Bayou	2432E_01	Bacteria in water (Recreation Use)	2020	5a
2436	Barbours Cut	2436_01	Dioxin in edible tissue	1998	5a
			PCBs in edible tissue	2004	5a
2437	Texas City Ship Channel	2437_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2438	Bayport Channel	2438_01	Copper in water	2018	5c
			Dioxin in edible tissue	2000	5a
			PCBs in edible tissue	2004	5a
2439	Lower Galveston Bay	2439_01	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
		2439_02	Dioxin in edible tissue	2010	5a
			PCBs in edible tissue	2010	5a
2441OW	East Matagorda Bay (Oyster Waters)	2441OW_01	Bacteria in oyster waters	1998	5a
2452OW	Tres Palacios Bay/Turtle Bay (Oyster Waters)	2452OW_01	Bacteria in oyster waters	1998	5a
2452TP	Tres Palacios Bay (Recreational Beaches)	2452TP_01	Bacteria in water (Recreational Beaches)	2014	5a
2453A	Garcitas Creek Tidal	2453A_01	Depressed dissolved oxygen in water	1999	5c
2453D	Lavaca Bay Ship Channel Area	2453D_01	Copper in water	2016	5c
			Depressed dissolved oxygen in water	2006	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
2453OW	Lavaca Bay/Chocolate Bay (Oyster Waters)	2453OW_02	Bacteria in oyster waters	1996	5a
		2453OW_03	Bacteria in oyster waters	1996	5a
2454	Cox Bay	2454_02	Copper in water	2016	5c
2455OW	Keller Bay (Oyster Waters)	2455OW_01	Bacteria in oyster waters	2006	5a
2456A	West Carancahua Creek Tidal	2456A_01	Depressed dissolved oxygen in water	2006	5b
2456OW	Carancahua Bay (Oyster Waters)	2456OW_02	Bacteria in oyster waters	1996	5a
2462OW	San Antonio Bay/Hynes Bay/Guadalupe Bay/Mission Lake (Oyster Waters)	2462OW_01	Bacteria in oyster waters	1996	5a
2472OW	Copano Bay/Port Bay/Mission Bay (Oyster Waters)	2472OW_01	Bacteria in oyster waters	1998	5c
2481CB	Corpus Christi Bay (Recreational Beaches)	2481CB_06	Bacteria in water (Recreational Beaches)	2010	5a
2482	Nueces Bay	2482_01	Copper in water	2016	5c
2483A	Conn Brown Harbor	2483A_01	Bacteria in water (Recreation Use)	2022	5c
2484	Corpus Christi Inner Harbor	2484_01	Copper in water	2016	5c
2485	Oso Bay	2485_02	Depressed dissolved oxygen in water	1996	5c
2485OW	Oso Bay (Oyster Waters)	2485OW_01	Bacteria in oyster waters	2006	5a
2491	Laguna Madre	2491_01	Depressed dissolved oxygen in water	1999	5b
		2491_02	Bacteria in water (Recreation Use)	2010	5c
			Depressed dissolved oxygen in water	1999	5b
2491OW	Laguna Madre (Oyster Waters)	2491OW_02	Bacteria in oyster waters	2006	5c
2492A	San Fernando Creek	2492A_01	Bacteria in water (Recreation Use)	2006	5b
2494A	Port Isabel Fishing Harbor	2494A_01	Bacteria in water (Recreation Use)	2010	5c
2501	Gulf of Mexico	2501_01	Bacteria in water (Recreation Use)	2010	5c
			Mercury in edible tissue	1998	5c

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Segment ID	Segment Name	AU ID	Impairment Description	Year First Listed	Impairment Category
2501	Gulf of Mexico	2501_02	Bacteria in water (Recreation Use)	2010	5c
			Mercury in edible tissue	1998	5c
		2501_03	Mercury in edible tissue	1998	5c
		2501_04	Mercury in edible tissue	1998	5c
		2501_05	Mercury in edible tissue	1998	5c
		2501_06	Mercury in edible tissue	1998	5c
		2501_07	Mercury in edible tissue	1998	5c
		2501_08	Mercury in edible tissue	1998	5c
		2501_09	Mercury in edible tissue	1998	5c
		2501_10	Mercury in edible tissue	1998	5c
2501MC	Matagorda County Beaches (Recreational Beaches)	2501MC_02	Bacteria in water (Recreational Beaches)	2022	5a

Draft 2022 Texas Integrated Report - Water Bodies Added to the Texas 303(d) List

Explanation of Column Headings

SegID and Name: *The unique identifier (SegID), segment name, and location of the water body. Items may be one of three types of numbers for SegID. The first type is a classified segment number (4 digits, e.g., 0218), as defined in the Texas Surface Water Quality Standards (TSWQS). The second type is an unclassified water body (e.g., 0218A), not defined in the Standards and associated with a classified water body because it is in the same watershed. The third type includes special Segments for Oyster Water Use (e.g., 2421OW) and Beach Watch Use (e.g., 2481CB) special areas.*

Parameter(s): *Pollutants or water quality conditions that assessment procedures indicate do not meet assigned water quality standards.*

Category: *One of four subcategories assigned to each impaired parameter to provide information about water quality status and management activities on that water body. The categories are defined below:*

Category 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

Category 5a: A TMDL is underway, scheduled, or will be scheduled.

Category 5b: A review of the standards for the water body will be conducted before a management strategy is selected.

Category 5c: Additional data and information will be collected or evaluated before a management strategy is selected.

Category 5n: Water body does not meet its applicable Chl a criterion, but additional study is needed to verify whether exceedance is associated with causal nutrient parameters or impacts to response variables.

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Segment ID	Segment Name	Impairment Description	Impairment Category
0201D	Barkman Creek	Bacteria in water (Recreation Use)	5c
0202I	Little Pine Creek	Bacteria in water (Recreation Use)	5c
0202P	Six Mile Creek	Bacteria in water (Recreation Use)	5c
0203A	Big Mineral Creek	Bacteria in water (Recreation Use)	5c
0204	Red River Above Lake Texoma	Bacteria in water (Recreation Use)	5c
0205	Red River Below Pease River	Bacteria in water (Recreation Use)	5c
0206	Red River Above Pease River	Bacteria in water (Recreation Use)	5c
0206C	North Groesbeck Creek	Bacteria in water (Recreation Use)	5c
0208	Lake Crook	Excessive algal growth in water	5c
0209	Pat Mayse Lake	Excessive algal growth in water	5c
0218	Wichita/North Fork Wichita River	Bacteria in water (Recreation Use)	5c
0304C	Wagner Creek	Depressed dissolved oxygen in water	5c
0401A	Harrison Bayou	Bacteria in water (Recreation Use)	5c
0404F	Sparks Branch	Bacteria in water (Recreation Use)	5c
0409B	South Lilly Creek	Depressed dissolved oxygen in water	5c
0607A	Boggy Creek	Bacteria in water (Recreation Use)	5c
0607C	Willow Creek	Bacteria in water (Recreation Use)	5c
0610	Sam Rayburn Reservoir	Excessive algal growth in water	5c
		pH	5c
0610P	Bayou Carrizo	Bacteria in water (Recreation Use)	5c
0612F	West Creek	Bacteria in water (Recreation Use)	5c
0613	Lake Tyler/Lake Tyler East	Excessive algal growth in water	5c
0804H	Upper Keechi Creek	Bacteria in water (Recreation Use)	5c
0808	West Fork Trinity River Below Eagle Mountain Reservoir	Dioxin in edible tissue	5a
0811	Bridgeport Reservoir	Excessive algal growth in water	5c
0811A	Big Creek	Bacteria in water (Recreation Use)	5c
0812	West Fork Trinity River Above Bridgeport Reservoir	Chloride in water	5c
0813	Houston County Lake	Excessive algal growth in water	5c
0818D	Lacy Fork	Bacteria in water (Recreation Use)	5c
0818G	North Twin Creek	Bacteria in water (Recreation Use)	5c
0821A	Pilot Grove Creek	Bacteria in water (Recreation Use)	5c
0836C	Grape Creek	Depressed dissolved oxygen in water	5c

Draft 2022 Texas Integrated Report - Water Bodies Added to the Texas 303(d) List

Segment ID	Segment Name	Impairment Description	Impairment Category
1001D	Bear Lake	Dioxin in edible tissue	5a
		PCBs in edible tissue	5a
1002A	Tarkington Bayou	Bacteria in water (Recreation Use)	5c
1003A	Winters Bayou	Bacteria in water (Recreation Use)	5c
1016D	Unnamed Tributary of Greens Bayou	Depressed dissolved oxygen in water	5c
1101D	Robinson Bayou	Depressed dissolved oxygen in water	5c
1216D	Unnamed tributary of Trimmier Creek	Bacteria in water (Recreation Use)	5c
1217	Lampasas River Above Stillhouse Hollow Lake	Bacteria in water (Recreation Use)	5c
1221C	Pecan Creek	Bacteria in water (Recreation Use)	5c
1228	Lake Pat Cleburne	Excessive algal growth in water	5c
1231	Lake Graham	Excessive algal growth in water	5c
1237	Lake Sweetwater	Chloride in water	5c
		Sulfate in water	5c
		Total dissolved solids in water	5c
1238B	Duck Creek	Bacteria in water (Recreation Use)	5c
1242N	Tehuacana Creek	Bacteria in water (Recreation Use)	5c
1405	Marble Falls Lake	Excessive algal growth in water	5c
1406	Lake Lyndon B. Johnson	Excessive algal growth in water	5c
1411	E. V. Spence Reservoir	Bacteria in water (Recreation Use)	5c
1419	Lake Coleman	Excessive algal growth in water	5c
1429	Lady Bird Lake (formerly Town Lake)	Excessive algal growth in water	5c
1801	Guadalupe River Tidal	Bacteria in water (Recreation Use)	5c
1902B	Salitrillo Creek	Bacteria in water (Recreation Use)	5c
1906	Lower Leon Creek	Bacteria in water (Recreation Use)	5c
2004B	Poesta Creek	Bacteria in water (Recreation Use)	5c
2107	Lower Atascosa River	Total dissolved solids in water	5c
2302A	Arroyo Los Olmos	Depressed dissolved oxygen in water	5c
2305	International Amistad Reservoir	Chloride in water	5c
2310	Lower Pecos River	Sulfate in water	5c
2421HC	Sylvan Beach Park (Recreational Beaches)	Bacteria in water (Recreational Bea	5a

Draft 2022 Texas Integrated Report - Water Bodies Added to the Texas 303(d) List

Segment ID	Segment Name	Impairment Description	Impairment Category
2424B	Lake Madeline	Dioxin in edible tissue	5a
		PCBs in edible tissue	5a
2424E	English Bayou	Dioxin in edible tissue	5a
		PCBs in edible tissue	5a
2424F	Crash Basin	Dioxin in edible tissue	5a
		PCBs in edible tissue	5a
2424G	Highland Bayou Diversion Canal	Dioxin in edible tissue	5a
		PCBs in edible tissue	5a
2425B	Jarbo Bayou	Bacteria in water (Recreation Use)	5c
2431E	Moses Bayou Above Tidal	Bacteria in water (Recreation Use)	5c
2483A	Conn Brown Harbor	Bacteria in water (Recreation Use)	5c
2501MC	Matagorda County Beaches (Recreational Beaches)	Bacteria in water (Recreational Bea	5a

Draft 2022 Texas Integrated Report - Water Bodies and Parameters Removed from the 303(d) List

Explanation of Column Headings

SegID and Name: The unique identifier (SegID), segment name, and location of the water body. Items may be one of three types of numbers for SegID. The first type is a classified segment number(4 digits, e.g., 0218), as defined in the Texas Surface Water Quality Standards (TSWQS). The second type is an unclassified water body (e.g., 0218A), not defined in the Standards and associated with a classified water body because it is in the same watershed. The third type includes special Segments for Oyster Water Use (e.g., 2421OW) and Beach Watch Use(e.g., 2481CB) special areas.

Area: Identifies the assessment unit (AU_ID, six or seven digits, e.g., 0101A_01) and describes the location of the specific area within a classified or unclassified waterbody for which one or more water quality standards are now being met.

Parameter(s): Pollutants or water quality conditions that assessment procedures had previously indicated did not meet assigned water quality standards (WQS).

Reason Code: A code which describes the general reason water bodies or parameters were removed from the 2020 303(d) List. Not all reason codes are utilized.

DELISTING_4A: TMDL Approved or established by EPA (moved to Category 4a).

DELISTING_4B: Other pollution control requirements (moved to Category 4b).

DELISTING_4C: Not caused by a pollutant (moved to Category 4c).

WQS_LISTING_INCORRECT: Applicable WQS attained; original basis for listing was incorrect.

WQS_NEW_ASMT_METHOD: Applicable WQS attained according to new assessment method.

WQS_NEW_DATA: Applicable WQS attained based on new data.

WQS_STANDARDS_CHANGED: Applicable WQS attained due to change in WQS.

Type Delist: This signifies the impairment status of the assessment unit by the descriptions, as follows.

Area: Indicates this parameter is removed from this AU_ID only and is still on the 303(d) List (Category 5) in another AU_ID in the same segment.

Parameter: Indicates this parameter is removed from this AU_ID and no other AU_IDs are still on the 303(d) List (Category 5) for this parameter in this segment.

Complete: Indicates there are no other impairments on the 303(d) List (Category 5) of any parameter or AU_ID in this segment.

Parameter Category

Previous: One of three subcategories assigned to each impaired parameter to provide information about water quality status and management activities on that water body. The categories are defined below:

Draft 2022 Texas Integrated Report - Water Bodies and Parameters Removed from the 303(d) List

Category 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

Category 5a: A TMDL is underway, scheduled, or will be scheduled.

Category 5b: A review of the standards for the water body will be conducted before a management strategy is selected.

Category 5c: Additional data and information will be collected or evaluated before a management strategy is selected.

Category 5n: Water body does not meet its applicable Chl a criterion, but additional study is needed to verify whether exceedance is associated with causal nutrient parameters or impacts to response variables.

Current: *If this is blank, the parameter is no longer included on the 303(d) list in the reported area(s) for the reason listed. Otherwise, some impairments were changed to Category 4 and are no longer on the 303(d) list, but still considered impaired.*

Category 4: Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed.

Category 4a: A state-developed TMDL has been approved by EPA or a TMDL has been established by EPA for any water-pollutant combination.

Category 4b: Other required control measures are expected to result in the attainment of an applicable water quality standard in a reasonable period of time.

Category 4c: The impairment or threat is not caused by a pollutant.

LOS: *Level of support for this use, method, assessment parameter:*

FS: Fully Supporting.

NC: No Concern.

NA: Not Assessed.

NS: Nonsupport.

CS: Screening Level Concern.

CN: Use Concern.

CF: *Carry forward indicator check box: indicates that the Integrated level of support of CS, CN, or NS was carried forward from a previous assessment due to inadequate data for this method in this assessment.*

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Segment ID	Segment Name	Parameters	AU ID	Reason Code	Type Delist	Previous Impairment Category	Current Impairment Category	Additional Information
0211	Little Wichita River	Depressed dissolved oxygen in water	0211_02	WQS_NEW_DATA	Complete	5c		
0228	Mackenzie Reservoir	Sulfate in water	0228_01	WQS_NEW_DATA	Parameter	5c		
0229	Upper Prairie Dog Town Fork Red River	Bacteria in water	0229_01	WQS_NEW_DATA	Parameter	5c		
0302	Wright Patman Lake	pH	0302_11	WQS_NEW_DATA	Area	5b		FS of standard
			0302_13	WQS_NEW_DATA	Area	5b		
			0302_14	WQS_NEW_DATA	Area	5b		
0402B	Hughes Creek	Depressed dissolved oxygen in water	0402B_01	DELISTING_ORIG_INCORRECT	Complete	5c		Station not representative of the segment, data removed
0510	Lake Cherokee	pH	0510_02	WQS_NEW_DATA	Complete	5c		
0704	Hillebrandt Bayou	Bacteria in water	0704_02	DELISTING_4A	Parameter	5a	4a	
0803	Lake Livingston	Sulfate in water	0803_01	WQS_NEW_DATA	Parameter	5b		
			0803_02	WQS_NEW_DATA	Parameter	5b		
			0803_03	WQS_NEW_DATA	Parameter	5b		
			0803_04	WQS_NEW_DATA	Parameter	5b		
			0803_05	WQS_NEW_DATA	Parameter	5b		
			0803_06	WQS_NEW_DATA	Parameter	5b		
			0803_07	WQS_NEW_DATA	Parameter	5b		
			0803_08	WQS_NEW_DATA	Parameter	5b		
			0803_09	WQS_NEW_DATA	Parameter	5b		
			0803_10	WQS_NEW_DATA	Parameter	5b		
			0803_11	WQS_NEW_DATA	Parameter	5b		
			0803_12	WQS_NEW_DATA	Parameter	5b		
0819	East Fork Trinity River	Sulfate in water	0819_01	WQS_NEW_DATA	Parameter	5c		
0833	Clear Fork Trinity River Above Lake Weatherford	Depressed dissolved oxygen in water	0833_03	WQS_NEW_DATA	Area	5b		
0841Q	North Fork Fish Creek	Bacteria in water	0841Q_01	DELISTING_4A	Complete	5a	4a	
1007W	Harris County Flood Control Ditch D 138	Bacteria in water	1007W_01	DELISTING_4A	Complete	5a	4a	
1008I	Walnut Creek	Bacteria in water	1008I_01	DELISTING_4A	Complete	5a	4a	
1008J	Brushy Creek	Bacteria in water	1008J_01	DELISTING_4A	Complete	5a	4a	

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Segment ID	Segment Name	Parameters	AU ID	Reason Code	Type Delist	Previous Impairment Category	Current Impairment Category	Additional Information
1010C	Spring Branch	Bacteria in water	1010C_01	DELISTING_4A	Complete	5a	4a	
		Depressed dissolved oxygen in water	1010C_01	WQS_NEW_DATA	Complete	5c		
1014C	Horsepen Creek	Bacteria in water	1014C_01	DELISTING_4A	Complete	5a	4a	
1209	Navasota River Below Lake Limestone	Bacteria in water	1209_05	DELISTING_4A	Complete	5a	4a	
1213	Little River	Bacteria in water	1213_04	WQS_NEW_DATA	Complete	5c		
1217D	North Fork Rocky Creek	Depressed dissolved oxygen in water	1217D_01	WQS_NEW_DATA	Complete	5c		
1242B	Cottonwood Branch	Bacteria in water	1242B_02	WQS_NEW_DATA	Area	5c		
1302D	Peach Creek	Bacteria in water	1302D_01	WQS_NEW_DATA	Complete	5b		
1304	Caney Creek Tidal	Bacteria in water	1304_01	DELISTING_4A	Area	5a	4a	
1304A	Linnville Bayou	Bacteria in water	1304A_01	WQS_NEW_DATA	Complete	5a		
1413	Lake J. B. Thomas	Chloride in water	1413_01	WQS_NEW_DATA	Complete	5b		
		Total dissolved solids in water	1413_01	WQS_NEW_DATA	Complete	5b		
1425	O. C. Fisher Lake	Chloride in water	1425_01	WQS_NEW_DATA	Complete	5c		
		Total dissolved solids in water	1425_01	WQS_NEW_DATA	Complete	5c		
1427A	Slaughter Creek	Impaired macrobenthic community in water	1427A_01	WQS_NEW_DATA	Complete	5b		Delisted using new data collected by SWQM CO.
1433	O. H. Ivie Reservoir	Excessive algal growth in water	1433_01	WQS_NEW_DATA	Complete	5c		
			1433_02	WQS_NEW_DATA	Complete	5c		
			1433_03	WQS_NEW_DATA	Complete	5c		
			1433_04	WQS_NEW_DATA	Complete	5c		
1434G	Alum Creek	Bacteria in water	1434G_01	WQS_NEW_DATA	Complete	5c		
1602	Lavaca River Above Tidal	Bacteria in water	1602_03	DELISTING_4A	Area	5a	4a	
1602B	Rocky Creek	Bacteria in water	1602B_01	DELISTING_4A	Complete	5a	4a	

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Segment ID	Segment Name	Parameters	AU ID	Reason Code	Type Delist	Previous Impairment Category	Current Impairment Category	Additional Information
1803B	Sandies Creek	Impaired fish community in water	1803B_01	WQS_NEW_DATA	Parameter	5b		
		Impaired macrobenthic community in water	1803B_01	WQS_NEW_DATA	Parameter	5b		
1815	Cypress Creek	Depressed dissolved oxygen in water	1815_01	DELISTING_ORIG_INCORRECT	Parameter	5c		Listed in error - original 24hr DO dataset not temporally representative.
1911I	Martinez Creek	Bacteria in water	1911I_01	DELISTING_4A	Complete	5a	4a	
2102	Nueces River Below Lake Corpus Christi	Total dissolved solids in water	2102_01	WQS_NEW_DATA	Complete	5c		
			2102_02	WQS_NEW_DATA	Complete	5c		
2104	Nueces River Above Frio River	Bacteria in water	2104_01	WQS_NEW_DATA	Complete	5c		
2113	Upper Frio River	Impaired macrobenthic community in water	2113_01	WQS_NEW_DATA	Parameter	5c		
2117	Frio River Above Choke Canyon Reservoir	Total dissolved solids in water	2117_01	WQS_NEW_DATA	Parameter	5c		
			2117_02	WQS_NEW_DATA	Parameter	5c		
			2117_03	WQS_NEW_DATA	Parameter	5c		
			2117_04	WQS_NEW_DATA	Parameter	5c		
			2117_05	WQS_NEW_DATA	Parameter	5c		
			2117_06	WQS_NEW_DATA	Parameter	5c		
2411	Sabine Pass	Bacteria in water	2411_01	WQS_NEW_DATA	Parameter	5c		
2424G	Highland Bayou Diversion Canal	Bacteria in water	2424G_01	WQS_NEW_DATA	Parameter	5c		
2453C	Arenosa Creek	Bacteria in water	2453C_01	DELISTING_4A	Complete	5a	4a	
2456	Carancahua Bay	Bacteria in water	2456_02	DELISTING_4A	Complete	5a	4a	
2481C	Corpus Christi Bay (Recreational Beaches)	Bacteria in water	2481CB_03	DELISTING_4A	Area	5a	4a	
			2481CB_04	DELISTING_4A	Area	5a	4a	
2485A	Oso Creek	Bacteria in water	2485A_01	DELISTING_4A	Complete	5a	4a	

Draft 2022 Texas Integrated Report - Response to Public Comment

Texas Commission on Environmental Quality (TCEQ)

These comments address the TCEQ's Draft 2022 Texas Integrated Report for Clean Water Act Sections 303(d) and 305(b) List and were submitted during the comment period beginning January 28, 2022 and ending March 1, 2022.

COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
	<i>reservoirs</i>	Treatment of outliers and Below Detection Limit data: The draft Guidance doesn't mention this, but were outliers removed from other data sets used in the assessment, for example, the TN, TP, median Secchi depth thresholds used in the flowchart Figures F.1 and F.2? Were outliers removed in calculating the Trophic State Index? How were Below Detection Limit data handled in developing the threshold values? The process needs to be transparent, so that interested parties should be able to be able to replicate the work done by TCEQ to better understand how protective these processes will be for reservoirs.	Outliers were not removed from the datasets used to develop the draft 2022 Integrated Report, including the Trophic Classification of Texas Reservoirs. The assessment incorporates all the data in the assessment period, except those excluded due to drought, for the stations listed in Appendix F of the Draft 2022 Assessment Guidance. Data reported as below the detection limit were assessed at half the reported value. When developing thresholds, values that were less than the minimum historical reporting limit were assigned a value of one-half the reporting limit. No changes were made in response to this comment.

Draft 2022 Texas Integrated Report - Response to Public Comment

COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
	<i>reservoirs</i>	<p>The Line of Evidence Framework (p. 180) states that a line of evidence approach “allows for the evaluation of impacts from excessive algae caused by nutrients on protected uses.” The methodology for assessing chlorophyll in reservoirs with EPA-approved numeric criteria seems to be limiting the assessment of nutrient impacts to the proliferation of excessive phytoplanktonic algae. Is that the intention of TCEQ? The draft Guidance states, “This methodology provides a more robust assessment of reservoir conditions and increases certainty that excessive algae caused by nutrients are impacting factors like water clarity, increased algae biomass and DO attainment.” Wouldn’t a water body with excessive algae be a listing or concern, even if other parameters, like dissolved oxygen, seem to be unaffected? This is a concern in how the EPA-approved chlorophyll criteria are being applied in Figure F.1. If the assessment shows that the criteria are not exceeded, the reservoir is assessed as Fully Supporting without the other evidence being considered (TP, TN, DO swings, fish kills, etc.) We recommend some mechanism for a reservoir showing up as a concern, even if chlorophyll criteria are met.</p>	<p>The multiple lines of evidence approach is implemented to assess adverse nutrient conditions using multiple parameters to determine the status of reservoirs. In this process phytoplanktonic chlorophyll-a, upon which the criterion is based, serves as the primary indicator though other indicators related to algae growth are incorporated in the process. A reservoir that exceeds its site-specific criterion for chlorophyll-a is identified as impaired, provided minimum data requirements for assessment are met. No changes were made in response to this comment.</p>

Draft 2022 Texas Integrated Report - Response to Public Comment

COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
	<i>reservoirs</i>	<p>Chlorophyll measured at the dam is not typically a sensitive indicator of algal growth throughout the reservoir. First, chlorophyll is an indicator of elevated nutrients. While it can be used to indirectly measure certain phytoplankton, it does not account for all phytoplankton, nor does it account for filamentous algae and other submergent or emergent flora. Secondly, how well are golden algal blooms detected using these techniques? Further, by the time the water has flowed to the dam all variety of processes have been available to extract nutrients from the water. To better quantify the nutrient loading, more upstream sections should be measured. It would seem possible to have a nutrient-laden dead zone near the dam in a lake underlaying a surface layer that suggested no issues.</p>	<p>Biomass estimates of golden algae cannot be determined with chlorophyll-a data collected by TCEQ and partners. In order to capture potential water quality impacts in more sensitive portions of the reservoir, dissolved oxygen assessments using data from multiple sections of the reservoirs are evaluated in the assessment of reservoir nutrients. The Texas Surface Water Quality Standards prescribe methods for evaluating standards attainment using chlorophyll-a data in §307.9(e)(7). Dissolved oxygen criteria are applicable to the mixed surface layer, in accordance with §307.9(c)(2). No changes were made in response to this comment.</p>

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COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
	<i>reservoirs</i>	<p>Reservoirs with EPA approved criteria are not assessed if there are fewer than 10 samples for any variable (chlorophyll, TP, TN, Secchi depth, DO listing). Developing numeric nutrient criteria for 39 Texas reservoirs was a difficult task and a big step forward for water quality protection in Texas. TCEQ should be commended for taking this important step to addressing this need. TPWD understands that the draft Guidance is intended to move toward extending numeric criteria to the 36 reservoirs for which EPA did not approve the original proposed criteria. Since there are only 39 reservoirs with EPA approved criteria for chlorophyll, is there an initiative at TCEQ to ensure that there is enough data for every one of the 39 to be assessed? A substantial amount of staff time and stakeholder engagement went into the proposal of numeric nutrient criteria for major reservoirs – shouldn't these waterbodies be prioritized for data collection to support the assessment?</p>	<p>In the 2022 draft Integrated Report, 33 of the 39 reservoirs with approved chlorophyll-a criteria were assessed. TCEQ and partners in each river basin meet annually to coordinate surface water quality monitoring activities for the upcoming fiscal year. In fiscal year 2022, all of the 39 reservoirs with approved criteria were monitored. This process to develop coordinated monitoring schedules includes stakeholder involvement and the allocation of surface water quality monitoring data collection activities, using available resources. The addition of category 5n as an assessment outcome prioritizes those waterbodies for additional monitoring. No changes were made in response to this comment.</p>

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COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
	<i>reservoirs</i>	<p>The first decision point in Figure F.2 is the question of whether the median chlorophyll from the 2022 assessment period of record exceeds the designated threshold. If not, the reservoir is immediately relegated to “No Concern.” This does not take into account other indicators of nutrient problems in a reservoir without EPA-approved chlorophyll criteria: DO swings, the Trophic Status Index, Secchi depth, TN or TP levels, or fish and other animal kills due directly or indirectly to nutrients (including cyanobacteria blooms). TPWD staff recommend that ALL reservoirs be evaluated for the suite of factors related to eutrophication, not just the chlorophyll threshold. This could be accomplished by, at the very least, changing the first decision point in the flow chart to: “Is median Chl a threshold exceeded OR is 10-year change in Chl a TSI>10.” The way the flow chart is written now, a reservoir could have very high TN or TP levels, or other concerns with Secchi depth or DO, and be assessed as “No Concern.” One recommendation is to use either TP OR Secchi depth as indicators, not TP AND Secchi depth.</p>	<p>Chlorophyll-a serves as the primary indicator in both of the approaches outlined in Appendix F of the Assessment Guidance, though other indicators related to algae growth are incorporated in the process. No changes were made in response to this comment.</p>

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COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
	<i>reservoirs</i>	<p>Application of the Trophic Status Index was one of the more confusing aspects of this draft IR. While TPWD supports use of a tool such as the TSI, it should be noted that only three reservoirs out of all those assessed for the draft IR were listed as having a ten-point increase: O.C. Fisher Reservoir, Lake Somerville, and Greenbelt Lake. Is the ten-point increase over 10 years a sensitive enough indicator of impacts of excessive nutrients on reservoirs? TCEQ may want to consider revising this portion of the flowchart to alert on a smaller point spread change in TSI over ten years. A ten-point increase in the Trophic State Index (TSI) translates to a 2- to 3-fold increase in turbidity, TP, and chlorophyll. How does this approach integrate with a non-degradation policy?</p>	<p>Carlson's Trophic Status Index (TSI) provides a useful tool for assessing a reservoir's condition and evaluating changes over time. Changes in TSI at 10-point increments are illustrated in Table 1-2 in the Trophic Classification of Texas Reservoirs report, and demonstrates how a change may come from shifts in multiple parameters. The TSI 10-year change is only used for reservoirs with chlorophyll-a criteria disapproved by EPA to indicate potential cultural eutrophication, and rapid transition toward un-desirable trophic conditions. No changes were made in response to this comment.</p>
	<i>reservoirs</i>	<p>In the reservoir assessment methodology, it wasn't always clear how threshold values were developed. For a reservoir with an EPA-approved criteria, is "threshold" in the top box of the Figure F.1 flowchart the same number as the approved chlorophyll criterion for that reservoir? In addition, it is uncertain how to evaluate the power of the approved criterion to detect changes in reservoirs, when comparing a non-parametric measure like the median of one data set with a parametric criterion like the 99th percentile of the criteria development data set. For example, if there are 30 data points available to assess a reservoir, how much increase in the mean chlorophyll would there have to be for the reservoir to be listed as non-supporting?</p>	<p>In Figure F.1, the top box, "Is median Chl-a criterion exceeded", indicates that a "criterion" is applied. The criterion applied is the approved chlorophyll-a criteria for that reservoir located in Appendix F of the Texas Surface Water Quality Standards (30 Texas Administrative Code Chapter 307). This assessment protocol uses medians of chlorophyll-a data collected from monitoring sites as specified in Appendix F of the TSWQS for those reservoirs with approved chlorophyll-a criteria. Chlorophyll-a criteria adopted by TCEQ and approved by EPA were developed using the 99th percentile confidence interval of the mean to derive the criterion, and based attainment upon the median of sampling data. Both measures provide similar information regarding the location of a population's central tendency. No changes were made in response to this comment.</p>

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COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
	<i>reservoirs</i>	TPWD supports the establishment of a new category 5n for water bodies affected by excessive nutrients. Excessive nutrients, along with associated eutrophication and increased harmful algal blooms, are significant water quality issues in Texas, especially in light of increasing growth and development in the state. The new category should help in spotlighting waterbodies where efforts are needed to understand and address excessive nutrient inputs, whether from point or nonpoint sources or a combination of the two.	TCEQ acknowledges this comment. No changes were made in response to this comment.
	<i>reservoirs</i>	The tables in the Supplemental Data for Reservoir Nutrient Assessment list the criteria threshold for change in TSI (10 points) and the 2010 Chl a TSI under the Median column. It is difficult to use the tables to understand if a reservoir has exceeded the TSI threshold. TPWD recommends that the ten-year change in TSI points (+/-) or the 2022 Chlorophyll a TSI be included in the tables to more easily see if the threshold has been exceeded.	The 10-year change of the TSI was intended to be reported in the Supplemental Data for Reservoir Nutrient Assessment report. In response to this comment, TCEQ revised this report to include the 10-year change in values.
1003	<i>East Fork of the San Jacinto River</i>	TPWD recommends that the East Fork of the San Jacinto River (1003) be included in the Integrated Report for having a concern for fish kills. During the assessment period, TPWD has investigated seven fish kills (one of which included three separate reports from the public) along primarily the southern extent of the fork. Of those events, two were confirmed low dissolved oxygen events, one suspected low DO, and four with unknown source causes.	TPWD fish kill reports used in this assessment do not show a continuing persistent pattern of fish kills, and of the reported fish kills, none have occurred since 2018. No changes were made in response to this comment.

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COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
1113A	<i>Armand Bayou Above Tidal</i>	<p>TPWD recommends that Armand Bayou Above Tidal (1113A_01) be included in the Integrated Report for having a concern for fish kills. During the assessment period, TPWD has investigated four fish kills on Armand Bayou that have been caused by municipal wastewater releases from either a treatment plant or sewer lines. These fish kills were included in the fish kill query TPWD provided for the 2022 Integrated Report. The Integrated Report lists Armand Bayou Above Tidal as not supporting Contact Recreation, a TMDL for E. coli, and nonsupport for depressed dissolved oxygen, and impaired fish and macrobenthic communities. The Integrated Report also lists Armand Bayou Tidal (1113) as having a nutrient screening level concern for chlorophyllnd several exceedances for ammonia, total phosphorus, nitrate, and dissolved oxygen. These municipal wastewater releases that have caused fish kills may be contributing to the water quality concerns in Armand Bayou Tidal (1113) and Above Tidal (1113A).</p>	<p>In response to this comment, a concern for fish kills will be included for Armand Bayou Above Tidal, 1113A_01.</p>
1242N	<i>Tehuacana Creek</i>	<p>TPWD recommends including “PS - Industrial Point Source Discharge” to the Potential Sources of Impairment document for Tehuacana Creek (1242N) as there are E. coli limits to the permitted discharge and part of the wastewater discharge.</p>	<p>In response to this comment, “PS - Industrial Point Source Discharge” will be included in the Potential Sources of Impairment document.</p>

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COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
1244	<i>Brushy Creek</i>	<p>TPWD recommends that Brushy Creek Assessment Unit ID 1244_03 be included in the Integrated Report for having a concern for fish kills. During the assessment period, TPWD has investigated three fish kills on Brushy Creek and tributaries that have been caused by municipal wastewater releases from either a treatment plant or sewer lines. These fish kills were included in the fish kill query TPWD provided for the 2022 Integrated Report. Additionally, TPWD has recently investigated other fish kills and pollution complaints for poor water quality on Brushy Creek that are suspected to be from wastewater treatment plant releases but were outside of the assessment period. The Integrated Report lists Brushy Creek Assessment Unit ID 1244_03 as not supporting Contact Recreation, a nutrient screening level concern for nitrate, and several exceedances for ammonia and total phosphorus. The Integrated Report also identifies the potential source of the concern as municipal point source discharges. Including the fish kill concern for Brushy Creek complements the existing water quality concerns and potential source of pollution for this stream segment.</p>	<p>In response to this comment, a concern for fish kills will be included for Brushy Creek 1244_03.</p>
1259	<i>Leon River Above Belton Lake</i>	<p>Leon River Above Belton Lake (1259_01) notes sources for chlorophyll concerns but then lists the source for E. coli concerns as “UNK - Source Unknown”. Segment 1259_02 lists the source for E. coli as “NPS - Agriculture; NPS – Animal Feeding Operations (NPS); and NPS – Non-point source”. The potential sources should be the same for both assessment units.</p>	<p>In response to this comment, the sources will be updated to be consistent for parameters in both assessment units.</p>

Draft 2022 Texas Integrated Report - Response to Public Comment

COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
<i>1402H</i>	<i>Skull Creek</i>	TPWD recommends adding “PS – Industrial” to Skull Creek (1402H) as a source of the depressed dissolved oxygen impairment. The addition clarifies the sources for that waterbody. TPWD has determined an industrial discharge has contributed to fish kills and should be listed as a potential source.	A Use Attainability Analysis was developed to address the depressed dissolved oxygen impairment that established a more appropriate site-specific seasonal criterion and the criterion was approved by EPA in 2020. For purposes of the 303(d) report, the TCEQ must await future data to make any evaluation of continued impairment under the new criterion and information about any source thereof. No changes were made in response to this comment.
<i>1810</i>	<i>Plum Creek</i>	TPWD recommends that Plum Creek (1810) be included in the Integrated Report for having a concern for fish kills. During the assessment period, TPWD three fish kills on Plum Creek that have been caused by municipal wastewater releases. Additionally, there have been fish kills caused by industrial sources on the tributaries to Plum Creek. These fish kills are included in the fish kill information TPWD provided for the 2022 Integrated Report. Including the fish kill concern for Plum Creek complements the existing water quality concerns and potential sources of pollution for this stream segment.	In response to this comment, a concern for fish kills will be included for Plum Creek 1810_01.

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COMMENTOR: Texas Parks and Wildlife Department

<u>Segment ID</u>	<u>Water Body Name</u>	<u>Summary of Request or Comment</u>	<u>Summary of Action or Explanation</u>
2424*		<p>TPWD recommends that Highland Bayou Diversion Canal (2424G), Lake Madeleine (2424B), and English Bayou (2424E) be included in the Integrated Report for having a concern for fish kills as it relates to these sites being newly listed on the 303(d) list for PCBs and Dioxins. During the assessment period, TPWD has investigated two fish kills in Lake Madeleine associated with low dissolved oxygen. In Highland Bayou Diversion Canal, TPWD investigated two pollution complaints (crude oil discharge) and three fish kills (one low dissolved oxygen, and one cold weather stress). In Offats Bayou, which is connected to English Bayou at 61st Street in Galveston, a large fish kill event occurred last fall caused by low dissolved oxygen associated with benthic algal turnover and poor water circulation. All three of these water bodies are commonly used by the public to fish along the shoreline.</p>	<p>The new 303(d) Listings for segments 2424B, 2424E, and 2424G are not based on new information. The Department of State Health Services (DSHS) issued ADV-35 on 7/8/2008, for PCBs and Dioxins in fish tissue for Galveston Bay including Chocolate Bay, East Bay, West Bay, Trinity Bay, and contiguous waters. These three segments are contiguous with others initially listed in the 2010 Integrated Report. There were no recorded fish kills within the seven-year period of record for the 2022 IR. No changes were made in response to this comment.</p>

Texas Commission on Environmental Quality



ORDER ADOPTING THE DRAFT 2022 TEXAS INTEGRATED REPORT FOR THE FEDERAL CLEAN WATER ACT § 303(d) AND § 305(b)

Docket No. 2021-1647-MIS
Non-Rule Project No. 2022-007-OTH-NR

On June 1, 2022, the Texas Commission on Environmental Quality (Commission) adopted the Draft 2022 Texas Integrated Report for the federal Clean Water Act § 303(d) and § 305(b). Notice of the draft report was published for comment in the January 28, 2022, issue of the *Texas Register* (47 *TexReg* 357).

IT IS THEREFORE ORDERED BY THE COMMISSION that the Draft 2022 Texas Integrated Report for the federal Clean Water Act § 303(d) and § 305(b) is hereby adopted. The Commission further authorizes staff to make any non-substantive revisions to the report necessary to comply with Texas Register requirements. The adopted 2022 Texas Integrated Report for the federal Clean Water Act § 303(d) and § 305(b), is incorporated by reference in this Order as if set forth at length verbatim in this Order.

This Order constitutes the Order of the Commission required by the Administrative Procedure Act, Tex. Gov't Code, § 2001.033.

If any portion of this Order is for any reason held to be invalid by a court of competent jurisdiction, the invalidity of any portion shall not affect the validity of the remaining portions.

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

Jon Niermann, Chairman

Date Signed