



TCEQ

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FINAL

April 2008 Update to the Texas Water Quality Management Plan

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Water Quality Division

Texas Commission on Environmental Quality

April 2008 Update to the Texas Water Quality Management Plan

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Water Quality Assessment Section
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Developed in accordance with Section 205(j)
and 208 of the Federal Clean Water Act
and applicable regulations thereto.



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Introduction

The Texas Water Quality Management Plan (WQMP) is the product of a wastewater treatment facility planning process developed and updated in accordance with provisions of Sections 205(j), 208, and 303 of the Federal Clean Water Act (CWA), as amended. The WQMP is an important part of the State's program for accomplishing its clean water goals.¹

The Texas Department of Water Resources, a predecessor agency of the Texas Commission on Environmental Quality (TCEQ), prepared the initial WQMP for waste treatment management during the late 1970s. The Clean Water Act mandates that the WQMP be updated as needed to fill information gaps and revise earlier certified and approved plans. Any updates to the plan need involve only the elements of the plan that require modification. The original plan and its subsequent updates are collectively referred to as the State of Texas Water Quality Management Plan.

The WQMP is tied to the State's water quality assessments that identify priority water quality problems. The WQMPs are used to direct planning for implementation measures that control and/or prevent water quality problems. Several elements may be contained in the WQMP, such as total maximum daily loads (TMDLs), effluent limitations of wastewater facilities, nonpoint source management controls, identification of designated management agencies, and ground water and source water protection planning. Some of these elements may be contained in separate documents which are prepared independently of the current WQMP update process, but may be referenced as needed to address planning for water quality control measures.

This document, as with previous updates², will become part of the WQMP after completion of its public participation process, certification by the TCEQ on behalf of the Governor of Texas, and approval by the Environmental Protection Agency (EPA).

The April 2008 WQMP update address the following topics:

1. Projected Effluent Limits Updates for water quality planning purposes
2. Service Area Population for Municipal Wastewater Facilities
3. Designation of Management Agencies for Municipal Wastewater Facilities
4. Total Maximum Daily Load Updates

¹A formal definition for a water quality management plan is found in 40 Code of Federal Regulations (CFR) 130.2(k).

²Fiscal Years 1980, 1981, 1982, 1983, 1984/85, 1986/88, 1989, 1990, 1991, 1992, 1993/94, 1995, 1996, 1997/98, 02/1999, 05/1999, 07/1999, 10/1999, 01/2000, 04/2000, 07/2000, 10/2000, 01/2001, 04/2001, 07/2001, 10/2001, 01/2002, 04/2002, 07/2002, 10/2002, 01/2003, 04/2003, 07/2003, 10/2003, 01/2004, 04/2004, 07/2004, 10/2004, 01/2005, 04/2005, 07/2005, 10/2005, 01/2006, 04/2006, 07/2006, 10/2006, 01/2007, 04/2007, 10/2007 and 01/2008.

The Projected Effluent Limit Updates section provides information compiled from February 1, 2008 through April 30, 2008, and is based on water quality standards, and may be used for water quality planning purposes in Texas Pollutant Discharge Elimination System (TPDES) permit actions.

The sections on the Service Area Population and Designation of Management Agencies for municipal wastewater facilities have been developed and evaluated by the TCEQ in cooperation with the Texas Water Development Board (TWDB) and regional water quality management planning agencies.

The Total Maximum Daily Load (TMDL) Updates section provides information on proposed waste load allocations for new dischargers and revisions to existing TMDLs.

The materials presented in this document revise only the information specifically addressed in the following sections. Previously certified and approved water quality management plans remain in effect.

Projected Effluent Limit Updates

Table 1 reflects proposed effluent limits for new dischargers and preliminary revisions to original proposed effluent limits for preexisting dischargers (MGD—Million Gallons per Day, CBOD₅—5 Day Carbonaceous Biochemical Oxygen Demand, NH₃-N—Ammonia-Nitrogen, BOD₅—5 Day Biochemical Oxygen Demand and DO—Dissolved Oxygen).

Effluent flows indicated in Table 1 reflect future needs and do not reflect current permits for these facilities. These revisions may be useful for water quality management planning purposes. The effluent flows and constituent limits indicated in the table have been preliminarily determined to be appropriate to satisfy the stream standards for dissolved oxygen in their respective receiving waters. These volumes and effluent sets may be modified at the time of permit action. These limits are based on water quality standards effective at the time of the TCEQ production of this update. Water Quality Standards are subject to revision on a triennial basis.

Table 1. Projected Effluent Limit Updates

State Permit Number	Segment Number	EPA ID Number	Permittee Name/ County	Flow (MGD)	CBOD ₅ (mg/L)	CBOD ₅ (lbs/day)	NH ₃ -N (mg/L)	NH ₃ -N (lbs/day)	BOD ₅ (mg/L)	BOD ₅ (lbs/day)	DO (mg/L)	Months/ Comments
10032-001	1006	0025062	Harris County FWSD No. 51 Harris	6.3	10	525.42	3	157.63			6	Apr-Oct
				6.3	10	525.42	4	210.17			4	Nov-Mar
10301-002	2106	0131423	City of Three Rivers Live Oak	0.40	10	33.36	1	3.34			2	
10395-002	2426	0020109	City of Baytown Harris	6.2	10	517.08	2	103.42			4	Apr-Oct
				6.2	10	517.08	5	258.54			4	Nov-Mar
10671-001	2421	0022250	City of Seabrook Harris	2.5	10	208.50	3	62.55			4	
10879-001	2424	0020079	Galveston County FWSD No. 6 Galveston	0.32					10	26.69	4	
11203-001	1012	0069469	Montgomery County UD No. 3 Montgomery	1.5	7	87.57	2	25.02			6	
11401-001	1008	0054186	San Jacinto River Authority Montgomery *Combined flow not to exceed 7.8 MGD	7.8	10	650.52	3	195.16			4	Offl 001
				0.60	7	35.03	2	10.01			6	Offl 002
11512-001	2202	0057592	City of San Juan Cameron *Combined flow not to exceed 4.0 MGD	4.0	10	333.60	3	100.08			6	Offl 001
				0.20	10	16.68	3	5.00			6	Offl 002
11770-001	1001	0057053	Harris County MUD No. 50 Harris	0.55	10	45.87	3	13.76			4	

State Permit Number	Segment Number	EPA ID Number	Permittee Name/ County	Flow (MGD)	CBOD ₅ (mg/L)	CBOD ₅ (lbs/day)	NH ₃ -N (mg/L)	NH ₃ -N (lbs/day)	BOD ₅ (mg/L)	BOD ₅ (lbs/day)	DO (mg/L)	Months/ Comments
11818-003	1016	0131482	Harris County MUD No. 148 Harris	0.95	10	79.23	3	23.77			4	
11821-001	1006	0072184	Ana Araujo Johnson Harris	0.05	10	4.17	3	1.25			4	Apr-Oct
				0.05	10	4.17	5	2.09			4	Nov-Mar
12450-001	1016	0088650	Estate of Ann Slemmons Young Harris	0.065	10	5.42	3	1.63			4	Apr-Oct
				0.065	10	5.42	5	2.71			4	Nov-Mar
12701-001	1110	0093068	Fort Bend County MUD No. 47 and No. 48 and Vicksburg Joint Power Board Fort Bend	0.95	10	79.23	2	15.85			4	
13873-001	1245	0114855	City of Missouri City Fort Bend	6.0	5	250.20	1.5	75.06			5	
14166-002	1012	0130079	Woodland Oaks Utility Co., Inc. Montgomery	0.40	7	23.35	2	6.67			4	
14862-001	1008	0130095	Rayford Crossing, Ltd. Montgomery	0.022	10	1.83	3	0.55			4	
14864-001	0823	0130117	Era I.S.D. Cooke	0.015					20	2.50	4	
14868-001	2432	0131377	South Central Water Co. Fort Bend	0.80	10	66.72	3	20.02			4	
14870-001	1009	0128660	301 Lone Oak Partners, Ltd. Harris	0.252	10	21.02	2	4.20			4	

State Permit Number	Segment Number	EPA ID Number	Permittee Name/ County	Flow (MGD)	CBOD ₅ (mg/L)	CBOD ₅ (lbs/day)	NH ₃ -N (mg/L)	NH ₃ -N (lbs/day)	BOD ₅ (mg/L)	BOD ₅ (lbs/day)	DO (mg/L)	Months/ Comments
14871-001	1203	0131407	Country Club Retirement Community, LP Hill	0.02					10	1.67	4	
14873-001	1017	0082597	McDonald's Corp. Harris	0.003	10	0.25	3	0.08			4	Apr-Oct
				0.003	10	0.25	5	0.13		4	Nov-Mar	
14875-001	1006	0131415	South Central Water Co.- Sheldon Harris	0.60	10	50.04	3	15.01			4	
14878-001	0821	0131431	Wood-Oak Hollow, LLC Collin	0.50	10	41.70	3	12.51			4	
14879-001	1209	0131440	Ni America Texas Development, LLC Brazos	0.400					10	33.36	4	
14881-001	1108	0131458	Toscana Investments, L.L.P. Brazoria	0.75	7	43.79	2	12.51			6	
14884-001	2302	0131491	City of Penitas Hidalgo	0.75					20	125.10	4	

Planning Information Summary

The Water Quality and Monitoring Operations Divisions of the TCEQ coordinated with the TWDB and regional planning agencies to compile the wastewater facility information in this section. Domestic facility financing decisions under the State Revolving Loan Fund (SRF) program must be consistent with the certified and approved WQMP.

The purpose of this section is to present data reflecting facility planning needs, including previous water quality management plan needs requiring revision. Data are also presented to update other plan information for the TWDB's SRF projects. Table 2 contains the updated information. The table is organized in alphabetical order and includes the following 10 categories of information:

1. Planning Area - Area for which facility needs are proposed. The facility planning areas are subject to change during the facility planning process and any such changes will be documented in a later water quality management plan update. All planning areas listed are also designated management agencies (DMAs) unless otherwise noted in the "Comments" column.
2. Service Area - Area that receives the provided wastewater service.
3. Needs - A "T" indicates a need for either initial construction of a wastewater treatment plant, additional treatment capacity, or the upgrading of a wastewater treatment plant to meet existing or more stringent effluent requirements. A "C" indicates a need for improvements to, expansion of, rehabilitation of, or the initial construction of a wastewater collection system in the facility planning area. "T/C" indicates a need for both treatment and collection system facilities. More detailed facility planning conducted during a construction project may define additional needs and those needs will be reflected in a future update to the WQMP.
4. Needs Year - The year in which the needs were identified for the planning area.
5. Basin Name - The river basin or designated planning area where the entity is located. The seven water quality management planning areas designated by the Governor are Corpus Christi [Coastal Bend Council of Governments (CBCOG)], Killeen-Temple [Central Texas Council of Governments (CTCOG)], Texarkana [Ark-Tex Council of Governments (ATCOG)], Southeast Texas [South East Texas Regional Planning Council (SETRPC)], Lower Rio Grande Valley [Lower Rio Grande Valley Development Council (LRGVDC)], Dallas-Fort Worth [North Central Texas Council of Governments (NCTCOG)] and Houston [Houston-Galveston Area Council (H-GAC)]. Basin names are shown for agencies outside one of these areas.

6. Segment - The classified stream segment or tributary into which any recommended facility may discharge existing or projected wastewater. In the case of no-discharge facilities, this is the classified stream segment drainage area in which the facilities are located.
7. County - The county in which the facility planning area is located.
8. Date - The date the planning information was reviewed by the TCEQ.
9. Comments - Additional explanation or other information concerning the facility planning area.
10. Population - The base year and projected populations for each facility planning area. Population projections presented are consistent with the latest available statewide population projections or represent the most current information obtained from facility planning analyses.

The facility information in this section is intended to be utilized in the preparation of facility plans and the subsequent design and construction of wastewater facilities. Design capacities of the treatment and collection systems will be based upon the population projections contained in this document plus any additional needed capacity established for commercial/industrial flows and documented infiltration/inflow volumes (treatment or rehabilitation). The probable needs shown under the "Needs" heading are preliminary findings; specific needs for an area shall be as established in the completed and certified detailed engineering studies conducted during facility planning under the SRF and other state loan programs.

Specific effluent quality for any wastewater discharges resulting from any of the facilities recommended in this document will be in accordance with the rule on the Texas Surface Water Quality Standards in effect at the time of permit issuance for the specific facility.

Table 2. Service Area Population Updates to the Water Quality Management Plan

Planning Agency	Service Area	Needs	Needs Year	Basin Name	Segment	County	WQMP Date	Comments	Year	Population
City of Alamo	City of Alamo	T/C	1992	Nueces - Rio Grande Coastal Basin	2202	Hidalgo	02/12/2008	Rehabilitation of collection system.	2005	15,976
									2010	20,915
									2020	28,107
									2030	36,163
Bell County WCID No. 2	Little River, Academy and surrounding areas.	T/C	1978	Brazos River Basin	1213	Bell	02/14/2008	Construct a new WWTP for Little River, Academy and surrounding areas.	2006	1,706
									2010	1,793
									2020	1,896
									2030	1,989
City of Greenville	City of Greenville	T/C	1978	Sabine River Basin	0507	Hunt	03/12/2008	Expansion and improvement of existing wastewater treatment plant.	2005	25,250
									2010	25,756
									2020	27,070
									2030	29,644
Harris County WCID No. 36	Harris County WCID No. 36	C	2001	San Jacinto River Basin	1006	Harris	03/12/2008	Replacement or rehabilitation of collection system.	2005	14,500
									2010	14,500
									2020	14,700
									2030	15,100

Planning Agency	Service Area	Needs	Needs Year	Basin Name	Segment	County	WQMP Date	Comments	Year	Population
City of Sabin	City of Sabin	T/C	1978	Nueces River Basin	2110	Uvalde	04/08/2008	Construct a new wastewater treatment plant.	2000	2,175
									2010	2,992
									2020	3,200
									2030	3,400
Trinity River Authority	Red Oak Creek Regional	T/C	1980	Trinity River Basin	0805	Ellis	03/06/2008	Upgrade and expand existing WWTP in Ellis County.	2000	39,750
									2010	49,914
									2020	61,031
									2030	79,208
Trinity River Authority	Central Regional	T/C	1989	Trinity River Basin	0841	Dallas and Tarrant	03/05/2008	Rehabilitate existing WWTP to service Dallas and Tarrant counties, with no change in capacity.	2000	1,115,000
									2010	1,342,000
									2020	1,520,000

Designated Management Agencies

In order to be designated as a management agency for wastewater collection or treatment, an entity must demonstrate the legal, institutional, managerial and financial capability necessary to carry out the entity's responsibilities in accordance with Section 208 (c) of the Clean Water Act (see below list of requirements). Before an entity can apply for a state revolving fund loan, it must be recommended for designation as the management agency in the approved WQMP. Designation as a management agency does not require the designated entity to provide wastewater services, but enables it to apply for grants and loans to provide the services. The facilities listed in Table 3 have submitted Designated Management Agencies (DMA) resolutions to the TCEQ. The TCEQ submits this DMA information to the EPA for approval as an update to the WQMP.

Section 208 (c)(2) Requirements for Management Agency:

- 208(c)(2)(A): to carry out portions of an area-wide waste treatment plan.
- 208(c)(2)(B): to manage waste treatment works.
- 208(c)(2)(C): directly or by contract to design and construct new works.
- 208(c)(2)(D): to accept and utilize grants.
- 208(c)(2)(E): to raise revenues, including assessment of waste treatment charges.
- 208(c)(2)(F): to incur short and long term indebtedness.
- 208(c)(2)(G): to assure community pays proportionate cost.
- 208(c)(2)(H): to refuse to receive waste from non-compliant dischargers.
- 208(c)(2)(I): to accept for treatment industrial wastes.

Table 3. Designated Management Agencies Updates to the Water Quality Management Plan

Planning Agency	Service Area	DMA Needs	DMA Date	DMA Area/Comments
City of Alamo	City of Alamo	T/C	02/19/2008	City Limits
City of Sabin	City of Sabin	T/C	01/17/2007	City Limits
Trinity River Authority	Mountain Creek	T/C	04/23/2008	To include towns of Grand Prarie, Midlothian, and Venus.

Total Maximum Daily Load Updates

The Total Maximum Daily Load (TMDL) Program works to improve water quality in impaired or threatened water bodies in Texas. The program is authorized by and created to fulfill the requirements of Section 303(d) of the federal Clean Water Act.

The goal of a TMDL is to restore the full use of a water body that has limited quality in relation to one or more of its uses. The TMDL defines an environmental target and based on that target, the state develops an implementation plan with waste load allocations for point source dischargers to mitigate anthropogenic (human-caused) sources of pollution within the watershed and restore full use of the water body.

The development of TMDLs is a scientifically rigorous process of intensive data collection and analysis. After adoption by the TCEQ, TMDLs are submitted to the U.S. Environmental Protection Agency for review and approval.

Table 4 reflects proposed waste load allocations for new dischargers and revisions to TMDLs.

Table 4. Total Maximum Daily Load Updates

State Permit Number	Segment Number	Permittee Name	Flow (MGD)	Permit Implementation	Waste Load Allocation (WLA) cfu=colony forming unit	TMDL/Comments
13873-001	1245	City of Missouri City (Flat Bank Steep Bank)	3.0	Change to <i>E. coli</i> limit	4.5 x 10 ¹⁰ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 1.
12833-002	1245	City of Sugar Land (South)	10.0	<i>E. coli</i> monitoring	1.5 x 10 ¹¹ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 1.
10086-001	1245	Fort Bend County WCID No. 2	6.0	<i>E. coli</i> monitoring	8.9 x 10 ¹⁰ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 1.
12937-001	1245	Palmer Plantation MUD No. 1	0.6	<i>E. coli</i> monitoring	8.9 x 10 ⁹ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 1.
11046-001	1245	Quail Valley UD	4.0	<i>E. coli</i> monitoring	6.0 x 10 ¹⁰ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 1.
14100-001	1245	Sienna Plantation MUD No. 1	0.902	<i>E. coli</i> monitoring	1.3 x 10 ¹⁰ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 1.
14064-001	1245	Stafford Mobile Home Park Inc.	0.1	<i>E. coli</i> monitoring	1.5 x 10 ⁹ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 1.
12003-001	1245	Fort Bend County MUD No. 25	1.6	<i>E. coli</i> monitoring	2.4 x 10 ¹⁰ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.

State Permit Number	Segment Number	Permittee Name	Flow (MGD)	Permit Implementation	Waste Load Allocation (WLA) cfu=colony forming unit	TMDL/Comments
12475-001	1245	Fort Bend County MUD No. 41	0.50	<i>E. coli</i> monitoring	7.5 x 10 ⁹ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.
13951-001	1245	Fort Bend County MUD No. 118	1.2	<i>E. coli</i> monitoring	1.8 x 10 ¹⁰ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.
14715-001	1245	Fort Bend County MUD No. 134	0.3	<i>E. coli</i> monitoring	4.5 x 10 ⁹ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.
14408-001	1245	Fort Bend County MUD No. 142	1.2	<i>E. coli</i> monitoring	1.8 x 10 ¹⁰ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.
14692-001	1245	Tamarron Lakes (Fort Bend County MUD No. 182)	0.8	<i>E. coli</i> monitoring	1.2 x 10 ¹⁰ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.
03015-000	1245	Hines Nurseries Inc.	1.0	<i>E. coli</i> monitoring	1.5 x 10 ¹⁰ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.
11475-001	1245	TDCJ Jester Unit No. 1	0.315	<i>E. coli</i> monitoring	4.7 x 10 ⁹ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.
14745-001	1245	TMI Inc. (Fort Bend County MUD No. 169)	0.5	<i>E. coli</i> monitoring	7.5 x 10 ⁹ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.
14758-001	1245	Pederson 631 LP (Fort Bend County MUD No. 188)	0.6	<i>E. coli</i> monitoring	8.9 x 10 ⁹ cfu <i>E. coli</i> per day	Bacteria in Upper Oyster Creek – Updates pages 32-37. Allocation Reach 2.