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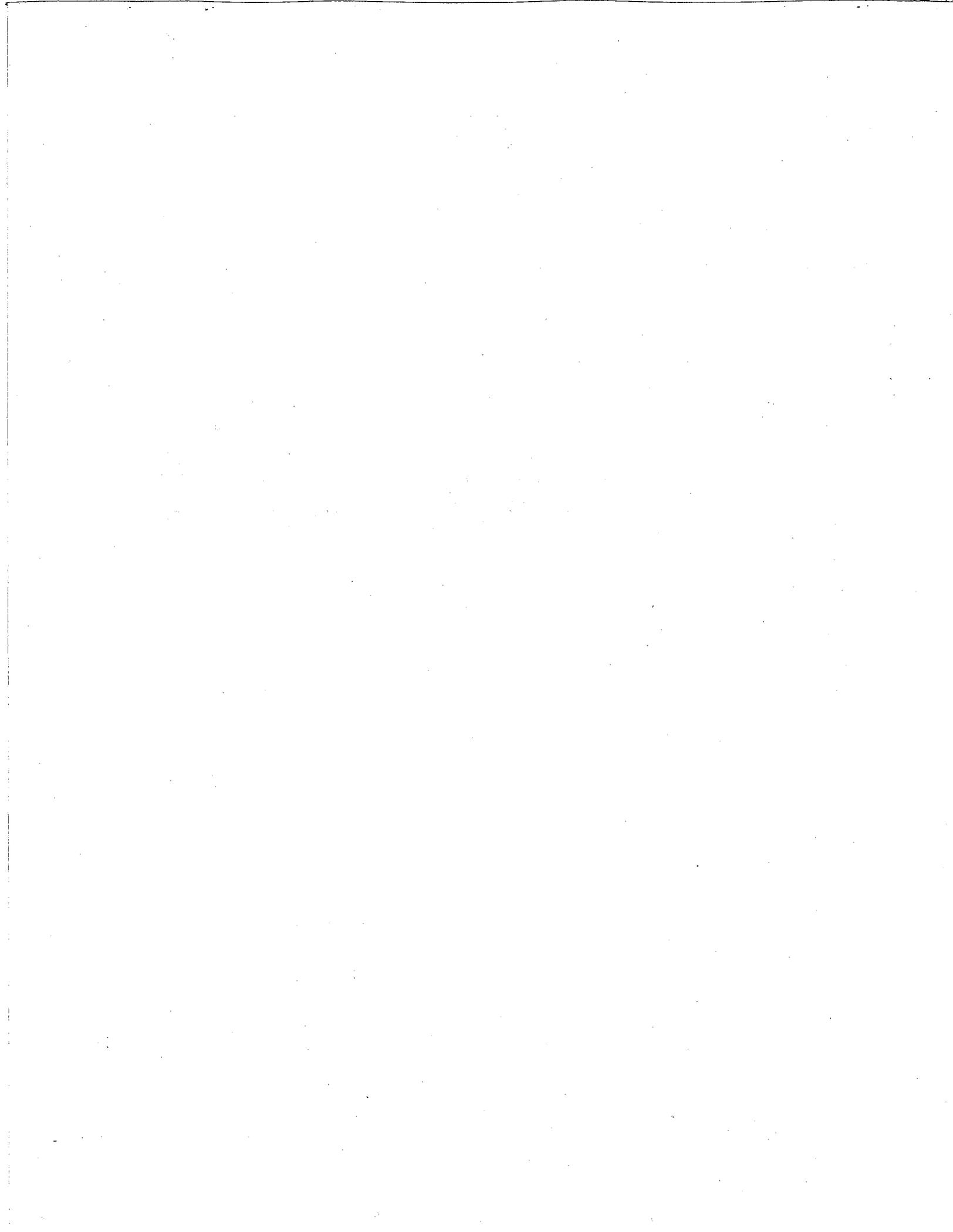
# January 2008 Update to the Texas Water Quality Management Plan

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Water Quality Division

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Texas Commission on Environmental Quality



# **January 2008 Update to the Texas Water Quality Management Plan**

Compiled and distributed by the  
Water Quality Assessment Section  
Water Quality Division  
Texas Commission on Environmental Quality  
P.O. Box 13087, MC-150  
Austin, TX 78711-3087

March 2008

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



**H.S. Buddy Garcia, *Chairman***  
**Larry R. Soward, *Commissioner***  
**Bryan W. Shaw PhD., *Commissioner***  
**Glenn Shankle, *Executive Director***

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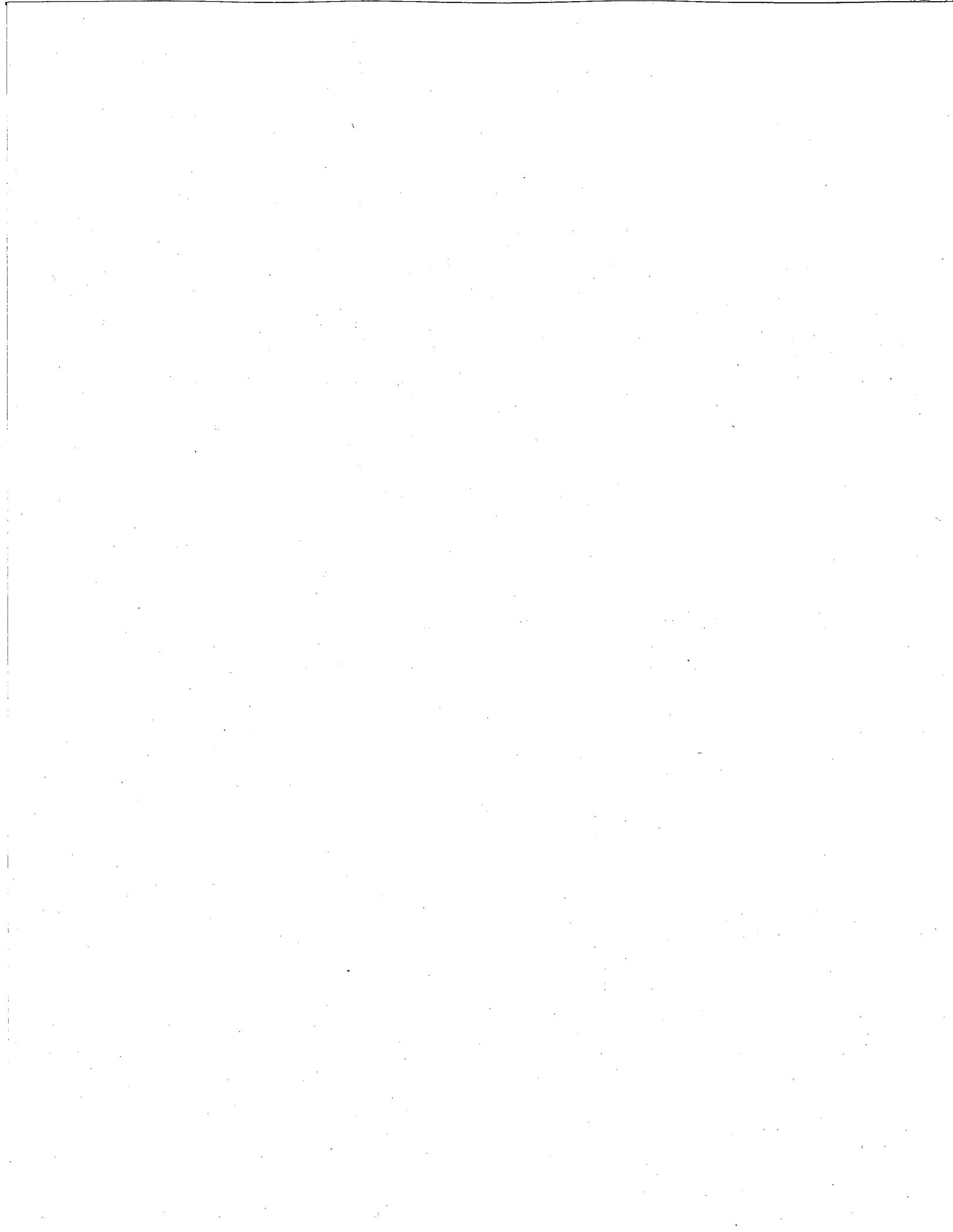
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## Introduction

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.<sup>1</sup>

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 updates<sup>2</sup>, 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 January 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

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

<sup>2</sup>Fiscal 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, and 10/2007.

The Projected Effluent Limit Updates section provides information compiled from November 1, 2007 through January 31, 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 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, CBOD<sub>5</sub>— 5 Day Carbonaceous Biochemical Oxygen Demand, NH<sub>3</sub>-N— Ammonia-Nitrogen, BOD<sub>5</sub>— 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 <sub>5</sub> (mg/L)	CBOD <sub>5</sub> (lbs/day)	NH <sub>3</sub> -N (mg/L)	NH <sub>3</sub> -N (lbs/day)	BOD <sub>5</sub> (mg/L)	BOD <sub>5</sub> (lbs/day)	DO (mg/L)	Months/ Comments
10027-004	0826	0119849	City of Denton Denton	1.60	5	66.72	2	26.69			4	
10081-001	1416	0079804	City of Eden Concho	0.44	10	36.70	3				5	
10236-001	1006	0021253	Sunbelt Fresh Water Supply District Harris	0.45	7	26.27	2	7.51			6	Apr-Oct
10352-003	1901	0129984	City of Kames City Karnes	0.45	10	37.53	5	18.77			4	Nov-Mar
10419-001	1006	0070611	City of Kames City Karnes	0.80	10	66.72	3	20.02			4	
10419-001	1006	0070611	Nitsch & Son Utility Co., Inc. Harris	0.25	10	20.85	3	6.26			4	
10436-001	1006	0032093	Champ's Water Supply Harris	0.15	10	12.51	3	3.75			4	Apr-Oct
10495-151	1006	0075663	City of Houston Willow Run Harris	0.15	10	12.51	5	6.26			4	Nov-Mar
10519-002	1006	0025321	City of Houston Willow Run Harris	0.75	7	43.79	2	12.51			6	Apr-Oct
10519-002	1006	0025321	City of Houston Willow Run Harris	0.75	10	62.55	3	18.77			4	Nov-Mar
10558-001	1006	0034428	City of Deer Park Harris	6.0	10	500.40	3	150.12			5	Apr-Oct
10558-001	1006	0034428	City of Deer Park Harris	6.0	10	500.40	4.4	220.18			4	Nov-Mar
10610-001	1006	0030988	Harris County WCID No. 84 Harris	2.0	10	166.80	3	50.04			4	Apr-Oct
10610-001	1006	0030988	Harris County WCID No. 84 Harris	2.0	10	166.80	5	83.40			4	Nov-Mar
10633-004	2491	0093106	Southern Water Corp. Harris	0.475	7	27.73	2	7.92			6	Apr-Oct
10633-004	2491	0093106	Southern Water Corp. Harris	0.475	10	39.62	5	19.81			4	Nov-Mar
10633-004	2491	0093106	City of McAllen Hidalgo	18	10	1,501.20	3	450.36			4	

State Permit Number	Segment Number	EPA ID Number	Permittee Name/ County	Flow (MGD)	CBOD <sub>5</sub> (mg/L)	CBOD <sub>5</sub> (lbs/day)	NH <sub>3</sub> -N (mg/L)	NH <sub>3</sub> -N (lbs/day)	BOD <sub>5</sub> (mg/L)	BOD <sub>5</sub> (lbs/day)	DO (mg/L)	Months/ Comments
10668-001	1001	0027758	Harris County FWSD No. 58 Harris	0.55	10	45.87	3	13.76			6	Apr-Oct
10910-001	1008	0058548	Northampton MUD Harris	0.55	10	45.87	5	22.94			4	Nov-Mar
11154-001	1006	0023515	Mount Houston Road MUD Harris	1.15	10	95.91	3	28.77			4	
11271-001	1012	0032514	Montgomery County UD No. 2 Montgomery	0.95	7	55.46	2	15.85			6	
11673-001	1006	0063860	Woodloch MHP, L.L.C. Harris	0.55	10	45.87	2	9.17			6	
11701-001	1006	0068683	Aqua Utilities Inc. Harris	0.03	10	2.50	3	0.75			4	Apr-Oct
11727-001	1006	0075698	Harris County MUD No. 8 Harris	0.03	10	2.50	5	1.25			4	Nov-Mar
11863-001	1016	0072893	Harris County MUD No. 150 Harris	1.20	10	100.08	2	20.02			6	
12375-001	1006	0087998	Port of Houston Authority Jacintoport Harris	0.835	10	69.64	3	20.89			4	Apr-Oct
12874-001	1006	0094803	DUCO, Inc. Harris	0.835	10	69.64	5	34.82			4	Nov-Mar
12882-001	1006	0094986	Bahran Solhjou Harris	3.0	10	250.20	3	75.06			4	Apr-Oct
				3.0	10	250.20	5	125.10			4	Nov-Mar
				0.022	10	1.84	3	0.55			4	Apr-Oct
				0.022	10	1.84	5	0.92			4	Nov-Mar
				0.10	10	0.83	3	0.25			4	Apr-Oct
				0.10	10	0.83	5	0.42			4	Nov-Mar
				0.03	10	2.50	3	0.75			4	Apr-Oct
				0.03	10	2.50	5	1.25			4	Nov-Mar

State Permit Number	Segment Number	EPA ID Number	Permittee Name/ County	Flow (MGD)	CBOD <sub>5</sub> (mg/L)	CBOD <sub>5</sub> (lbs/day)	NH <sub>3</sub> -N (mg/L)	NH <sub>3</sub> -N (lbs/day)	BOD <sub>5</sub> (mg/L)	BOD <sub>5</sub> (lbs/day)	DO (mg/L)	Months/ Comments
12996-001	1006	0096679	Aqua Utilities, Inc. Harris	0.10	10	8.34	3	2.50			4	Apr-Oct
13296-002	1009	0105376	Harris County MUD No. 358 Harris	2.0	7	116.76	2	33.36			6	Mar-Oct
13457-001	0826	0104957	Trinity River Authority of Texas Denton	7.0	5	291.90	1.4	81.73			6	*Ofll 001 Jun-Nov
				7.0	7	408.66	3	175.14			6	*Ofll 001 Dec-May
				11.5	5	479.55	1.9	182.23			6	*Ofll 002 Jun-Sept
				11.5	7	671.37	3	287.73			6	*Ofll 002 Oct-May
13461-001	2104	0130052	U.S. Department of Justice Live Oak	0.3	10	25.02	3	7.51			5	
13882-001	1016	0070769	J & S Water Co., L.L.C. Harris	0.15	10	12.51	3	3.75			4	Apr-Oct
				0.15	10	12.51	5	6.26			4	Nov-Mar
14189-001	1434	0122840	Metro H2O, Ltd. Travis	2.0	5	83.40	0.7	11.68			6	Jun-Sept
				2.0	5	83.40	1.7	28.36			6	Oct-May
14642-001	1434	0128171	RMD Construction, Inc. & City of Pflugerville Travis	3.0	5	125.10	2	50.04			4	
14737-001	1012	0128031	City of Montgomery Montgomery	0.40	10	33.36	2	6.67			4	

State Permit Number	Segment Number	EPA ID Number	Permittee Name/ County	Flow (MGD)	CBOD <sub>5</sub> (mg/L)	CBOD <sub>5</sub> (lbs/day)	NH <sub>3</sub> -N (mg/L)	NH <sub>3</sub> -N (lbs/day)	BOD <sub>5</sub> (mg/L)	BOD <sub>5</sub> (lbs/day)	DO (mg/L)	Months/ Comments
14825-001	1014	0075841	Fernco Dev. Ltd., Lenco Dev. Ltd., and Norco Dev. Ltd. Harris	0.06	10	5.00	3	1.50			4	
14827-001	1017	0081256	Fairbanks Plaza Shopping Center Harris	0.040	10	3.34	3	1.00			4	
14832-001	1806	0129828	Hill Country Camp Kerr	0.025	10	2.09	3	0.63			4	
14844-001	2424	0129941	AUC Group Galveston	0.075					10	6.26	4	
14850-001	1007	0026972	City of Southside Place Harris	0.40	7	23.35	2	6.67			6	
14852-001	1015	0130001	South Central Water Co. Montgomery	0.950	10	79.23	3	23.77			4	
14853-001	1008	0130010	WYA Autumnwood, Ltd. Montgomery	0.20	10	16.68	3	5.00			4	
14854-001	0836	0130028	Texas Dept. Of Transportation Navarro	0.014	10	1.17	3	0.35			4	
14856-001	1001	0128279	National Oilwell Varco, L.P. Harris	0.012	10	1.00	3	0.30			4	
14860-001	1017	0095435	Restaurant Services, L.L.C. Harris	0.002	10	0.17	3	0.05			4	Apr-Oct
				0.002	10	0.17	5	0.08			4	Nov-Mar

## 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 Arcola	City of Arcola	T/C	1988	San Jacinto - Brazos	1108	Fort Bend	09/06/2007	Increase Capacity of WWTP	2005	1,137
									2010	2,500
									2020	2,750
									2030	2,900
City of Los Frenos	City of Los Frenos	T/C	1980	Bays & Estuaries	2494	Cameron	11/30/2007	Increase Capacity of WWTP	2005	4,515
									2010	6,649
									2020	8,908
									2030	11,243
City of Mercedes	City of Mercedes	T/C	1992	Nueces-Rio Grande	2202	Hidalgo	1/22/2008	Increase Capacity of WWTP	2000	13,649
									2010	14,546
									2020	15,595
									2030	16,770
City of Point	City of Point	T	1978	Sabine	0512	Rains	1/22/2008	Rehabilitate Collection System	2005	792
									2010	897
									2020	1,008
									2030	1,059

## 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
Rio Grande City	County of Starr, El Tanque WSC and El Sauz WSC.	T/C	05/14/07	

## **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
11931-001	1428C	Windermere Utility Co. Inc./Windermere WWTP	2.0	Change to E. coli Limit	9.1 x 10 <sup>9</sup> cfu E. coli/day	Bacteria in Gilleland Creek Updates Table 6
11845-002	1428C	City of Pflugerville/Upper Gilleland Creek WWTP	5.3	E. coli Monitoring	2.4 x 10 <sup>10</sup> cfu E. coli/day	Bacteria in Gilleland Creek Updates Table 6
12971-001	1428C	City of Austin/Harris Ridge WWTP	0.5	E. coli Monitoring	2.3 x 10 <sup>9</sup> cfu E. coli/day	Bacteria in Gilleland Creek Updates Table 6
12733-001	1428C	Dessau Fountains Estates LLC/Silverado WWTP	0.15	E. coli Monitoring	6.8 x 10 <sup>8</sup> cfu E. coli/day	Bacteria in Gilleland Creek Updates Table 6
13318-001	1428C	City of Austin/Harris Branch WWTP	2.0	E. coli Monitoring	9.1 x 10 <sup>9</sup> cfu E. coli/day	Bacteria in Gilleland Creek Updates Table 6
10543-013	1428C	City of Austin/Wild Horse Ranch WWTP	0.99	E. coli Monitoring	4.4 x 10 <sup>9</sup> cfu E. coli/day	Bacteria in Gilleland Creek Updates Table 6
10543-014	1428C	City of Austin/Whisper Valley WWTP	3.0	E. coli Monitoring	1.4 x 10 <sup>10</sup> cfu E. coli/day	Bacteria in Gilleland Creek Updates Table 6
14832-001	1806	Hill Country Camp	0.025	E. coli Monitoring	0.12 x 10 <sup>9</sup> cfu E. coli/day	Bacteria in the Guadalupe River Above Canyon Updates Tables 13-22