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FINAL

January 2010 Update to the Texas Water Quality Management Plan

Prepared by the:
Office of Permitting & Registration, Water Quality Division

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

January 2010 Update to the Texas Water Quality Management Plan

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WQMP updates are also available on the TCEQ web site at:
<www.tceq.state.tx.us/nav/eq/eq_wqmp.html>

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

Table of Contents

Introduction 1

Projected Effluent Limit Updates 3

Planning Information Summary 6

Total Maximum Daily Load Updates 9

Tables

Table 1. Projected Effluent Limit Updates 4

Table 2. Service Area Population Updates 8

Appendixes

Appendix I. Two Total Maximum Daily Loads for Chloride and Total Dissolved Solids in the Colorado River Below E. V. Spence Reservoir For Segment Number 1426 10

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 effluent limitations of wastewater facilities, total maximum daily loads (TMDLs), 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[2], 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 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.

The January 2010 WQMP update addresses the following topics:

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

The Projected Effluent Limit Update section provides information compiled from November 1, 2009 through January 31, 2010, 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.

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

[2] 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, 07/2007, 10/2007, 01/2008, 04/2008, 07/2008, 10/2008, 01/2009, 04/2009, 07/2009 and 10/2009.

The Service Area Population section for municipal wastewater facilities has 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) Update section provides information on proposed waste load allocations for new dischargers and revisions to existing TMDLs and has been developed by the Water Quality Planning Division, TMDL Program.

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, $CBOD_5$ – 5 Day Carbonaceous Biochemical Oxygen Demand, NH_3-N – Ammonia-Nitrogen, BOD_5 – 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 flow 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
10115-002	1605	0024422	City of Schulenberg Fayette	0.50	10	41.70	3	12.51			4	
10541-001	1001	0020991	Sheldon Road MUD -Sheldon Woods Harris	0.23	10	19.18	3	5.75			4	
10704-001	0821	0026794	City of Trenton Fannin	0.165	10	13.76	3	4.13			4	
10749-001	1902	0054232	San Antonio River Authority - Salatrillo Creek Bexar	7.33	7	427.93	2	122.26			6	
11183-003	0809	0023116	City of Azle Outfall 003 Parker/Tarrant	1.44	5	60.05	1.8	21.62			6	May - Sept.
				1.44	7	84.07	3	36.03			6	Oct. - April
11183-003	0809	0023116	City of Azle Outfall 004 Parker/Tarrant	1.01	5	42.12	1.8	15.16			6	May - Sept.
				1.01	7	58.96	3	25.27			6	Oct. - April
11269-001	1913	0077232	Cibolo Creek Municipal Authority -Odo J Riedel Regional WWTP Bexar	6.20	10	517.08	3	155.12			6	Outfall Relocation
13536-001	1203	0106224	Special Camps for Special Kids Bosque	0.0275	10	2.29	3	0.69			4	Outfall 001
			The total combined flow of Otfl 001 and 002 = 0.0275 MGD	0.0275	10	2.29	3	0.69			4	Outfall 002

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
13547-001	0803	0106704	Monarch Utilities I, L.P. Trinity	0.075					10	6.26	4	
13834-003	0831	0132314	City of Willow Park Parker	2.40	10	200.16	3	60.05			4	
14953-001	1202	0132136	723 Fort Bend Partners, L.P. Fort Bend	0.04					10	3.34	4	
14956-001	1014	0132276	Weston MUD Harris	2.10	10	175.14	2	35.03			6	

Planning Information Summary

The Water Quality Planning Division 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 Service area population 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

Planning Agency	Service Area	Needs	Needs Year	Basin Name / COG	Segment	County	WQMP Date	Comments	Year	Population
Cibolo Creek Municipal Authority	Cibolo Creek Municipal Authority Area	T/C	2009	San Antonio River Basin	1913	Bexar	11/03/2009	Rehabilitation and improvements for collection system.	2005	12,740
									2010	16,520
									2020	24,080
									2025	27,860

Total Maximum Daily Load Updates

The Total Maximum Daily Load (TMDL) Program works to improve water quality in impaired or threatened waters 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 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.

The attached appendixes may reflect proposed waste load allocations for new dischargers and revisions to TMDLs. To be consistent, updates will be provided in the same units of measure used in the original TMDL document. And note that for bacteria TMDLs, loads may be expressed in counts for day, organisms per day, colony forming units per day, or similar expressions. These typically reflect different lab methods, but for the purposes of the TMDL program, these terms are considered synonymous.

Appendix I. Two Total Maximum Daily Loads for Chloride and Total Dissolved Solids in the Colorado River Below E. V. Spence Reservoir For Segment Number 1426

TMDL Updates to the WQMP: Colorado River Below E. V. Spence Reservoir (Segment 1426)

The document *Two Total Maximum Daily Loads for Chloride and Total Dissolved Solids in the Colorado River Below E. V. Spence Reservoir For Segment Number 1426* was adopted by the TCEQ on 2/07/2007 and approved by EPA on 4/9/07, and became an update to the state's Water Quality Management Plan. The TCEQ approved its corresponding implementation plan on 10/10/07.

The TMDL document included an individual Waste Load Allocations (WLAs) for chloride and total dissolved solids (TDS) for the City of Robert Lee wastewater treatment facility (WWTF). Subsequent to the development of the original WLAs for this facility, it was discovered that the source water utilized by the city for its domestic supply has elevated salinity. This makes the originally assigned WLAs impractical to reach. As a solution, load from the Allowance for Future Growth (AFG) category has been reassigned to the WWTF's WLA category.

Note that while this TMDL and its implementation plan give allocations for chloride and TDS to permitted facilities, the focus of the implementation activities is on nonpoint sources of these constituents. These include phreatophytic brush control, investigation and abatement of salinity contamination associated with oil and gas production, and reservoir management.

Table 1 updates the individual WLAs for chloride and TDS, found in part in Table 7 of the TMDL document.

Table 1 – Waste Load Allocations

State Permit Number	Segment Number	Permittee Name	Flow (MGD)	Waste Load Allocation (WLA) – Chloride lb/day	Waste Load Allocation (WLA) – TDS lb/day	TMDL
13901-001	1426	City of Robert Lee	0.121	674	2,568	Updates p. 26

Table 2 updates the TMDL equation for chloride (Table 12 in the TMDL document). Changes from the original table are in bold, and are a result of a portion of the AFG being moved to the WLA.

Table 2: Chloride TMDL

TMDL (lbs/year)	WLA (lbs/year)	LA (lbs/year)	AFG (lbs/year)	MOS (lbs/year)
1.32E+07	**2.46E+05**	1.05E+07	**1.83E+06**	6.62E+05

Table 3 updates the TMDL equation for TDS (Table 13 in the TMDL document). Changes from the original table are in bold, and are a result of a portion of the AFG being moved to the WLA.

Table 3: TDS TMDL

TMDL (lbs/year)	WLA (lbs/year)	LA (lbs/year)	AFG (lbs/year)	MOS (lbs/year)
3.80E+07	**9.38E+05**	2.93E+07	**5.87E+06**	1.90E+06