

December 23, 2015
FINAL

October 2015 Update to the Texas Water Quality Management Plan



October 2015 Update to the Texas Water Quality Management Plan

Prepared by the
Office of Water
Water Quality Division

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

December 2015

WQMP updates are also available on the TCEQ web site at:

< http://www.tceq.texas.gov/permitting/wqmp/WQmanagement_updates.html >

Developed in accordance with Sections 205(j), 208,
and 303 of the Federal Clean Water Act
and applicable regulations thereto.



Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niermann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*

Authorization for use or reproduction of any original material contained in this publication—that is, not obtained from other sources—is freely granted. The commission would appreciate acknowledgement.

Table of Contents

Introduction 1

Projected Effluent Limit Updates 3

Total Maximum Daily Load Updates 6

Tables

Table 1. Projected Effluent Limit Updates 4

Appendices

Appendix I. Eighteen Total Maximum Daily Loads for Bacteria in Buffalo and Whiteoak Bayous and Tributaries For Segment Numbers 1013, 1013A, 1013C, 1014, 1014A, 1014B, 1014E, 1014H, 1014K, 1014L, 1014M, 1014N, 1014O, 1017, 1017A, 1017B, 1017D, and 1017E..... 7

Appendix II. Thirteen Total Maximum Daily Loads for Indicator Bacteria in Eastern Houston Watersheds For Segments Numbers 1006F, 1006H, 1007F, 1007G, 1007H, 1007L, 1007K, 1007M, 1007O, and 1007R 8

Appendix III. Fifteen Total Maximum Daily Loads for Indicator Bacteria in Watersheds Upstream of Lake Houston For Segment Numbers 1004E, 1008, 1008H, 1009, 1009C, 1009D, 1009E, 1010, and 1011 10

Appendix IV. One Total Maximum Daily Load for Dissolved Oxygen in Lake O’ the Pines: For Segment Number 0403 12

Appendix V. Six Total Maximum Daily Loads for Bacteria in Waters of the Upper Gulf Coast: Segments 2421, 2422, 2423, 2424, 2432, and 2439 14

Appendix VI. Three Total Maximum Daily Loads for Bacteria in the San Antonio Area, For Segment Numbers: 1910 – Salado Creek, 1910A – Walzem Creek, and 1911 – Upper San Antonio River 15

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 updates², will become part of the WQMP after completion of its public participation process, certification by the TCEQ and approval by the United States 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 October 2015 WQMP update addresses the following topics:

1. Projected Effluent Limits Updates for water quality planning purposes
2. Total Maximum Daily Load Updates

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 1974, 1975, 1977, 1978, 1979, 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, 10/2009, 01/2010, 04/2010, 07/2010, 10/2010, 01/2011, 04/2011, 07/2011, 10/2011, BPUB 2011, 01/2012, 04/2012, 07/2012, 10/2012, 01/2013, 04/2013, 07/2013, 10/2013, 01/2014, 04/2014, 07/2014, 10/2014, 01/2015, 04/2015, and 07/2015.

The public comment period for the October WQMP update was from November 20, 2015 through December 22, 2015.

The Projected Effluent Limit Update section provides information compiled from August 1, 2015 through October 31, 2015, 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 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, 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 flow volumes and effluent sets may be modified at the time of permit action. These limits are based on water quality standards (WQS) effective at the time of the TCEQ production of this update. WQS 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
10038-001	1400	TX0023426	City of Big Lake Reagan	1.05	10	87.57	3	26.27			4	
10100-001	1434	TX0073946	City of Elgin Bastrop	2.0	5	83.40	2	33.36			4	
10191-001	0604	TX0053422	City of Huntington Angelina	0.45	10	37.53	3	11.26			4	
11287-003	0826	TX0123862	Town of Ponder Denton	0.36	10	30.02	2	6.00			4	
11715-001	1010	TX0068659	Texas National MUD Montgomery	0.225	10	18.77	3	5.63			4	
13366-001	0512	TX0103365	Pope and Cobb Corp. Wood	0.0155					10	1.29	4	
14376-001	1907	TX0090603	Leon Springs Utility Co. Bexar	0.45	5	18.77	1.6	6.00			6	Mar-Oct
				0.45	5	18.77	2	7.51			5	Nov-Feb
				0.80	5	33.36	1.4	9.34			6	Mar-Oct
				0.80	5	33.36	2	13.34			5	Nov-Feb
14558-001	2201	TX0127086	East Rio Hondo WSC Cameron	0.18	10	15.01	3	4.50			4	
14576-001	1009	TX0127311	Harris County MUD No. 434 Harris	0.40	10	33.36	3	10.01			6	
14905-003	1014	TX0136611	GP 570, Ltd. Harris	0.50	10	41.70	2	8.34			6	
15393-001	2441	TX0136476	Lighthouse RV Park, L.L.C. Matagorda	0.0099	10	0.83	3	0.25			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
15394-001	1014	TX0136484	Harris County MUD No. 438 Harris	0.05	10	4.17	2	0.83			6	
15398-001	2422	TX0136522	Street, Dick William Chambers	0.0075	10	0.63	3	0.19			4	
15411-001	0838	TX0136646	Johnson County Pipe, Inc. Johnson	0.02					20	3.34	4	
15418-001	1428	TX0136701	Austin Park, L.L.C. Travis	0.12	5	5.00	2	2.00			6	

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 EPA for review and approval.

The attached appendices 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. Also 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. Eighteen Total Maximum Daily Loads for Bacteria in Buffalo and Whiteoak Bayous and Tributaries For Segment Numbers 1013, 1013A, 1013C, 1014, 1014A, 1014B, 1014E, 1014H, 1014K, 1014L, 1014M, 1014N, 1014O, 1017, 1017A, 1017B, 1017D, and 1017E

TMDL Updates to the Water Quality Management Plan (WQMP): Buffalo and Whiteoak Bayous and Tributaries (Segments 1013, 1013A, 1013C, 1014, 1014A, 1014B, 1014E, 1014H, 1014K, 1014L, 1014M, 1014N, 1014O, 1017, 1017A, 1017B, 1017D, and 1017E)

The document *Eighteen Total Maximum Daily Loads for Bacteria in Buffalo and Whiteoak Bayous and Tributaries For Segment Numbers 1013, 1013A, 1013C, 1014, 1014A, 1014B, 1014E, 1014H, 1014K, 1014L, 1014M, 1014N, 1014O, 1017, 1017A, 1017B, 1017D, and 1017E* was adopted by the TCEQ on 04/08/09 and approved by EPA on 06/11/09, and became an update to the state's Water Quality Management Plan (WQMP). Fifteen subsequent WQMP updates prior to this one have updated the list of individual waste load allocations (WLAs) found in the original TMDL document. Additionally, two addenda to the original TMDL were submitted through the April 2013 and April 2015 WQMP updates. These addenda added two new assessment units (AUs) to the original TMDL project.

The purpose of this update is to make the following changes to the TMDL, presented in Table 1:

- Add two permits.

The changes reflected in this update resulted in the shifting of allocations between the sum of the individual WLAs and the allowance for future growth (AFG) in one AU. This was originally presented in Table 53 in the TMDL document, and the affected AU is included here as Table 2.

In Table 54 of the TMDL, the WLAs for permitted facilities are the sum of the individual WLAs and the allowance for future growth within each AU. Therefore, these overall numbers did not change, and Table 54 of the TMDL remains the same.

Table 1 – Change to Individual Waste Load Allocation (Updates Table 45, pp. 99-103 in the TMDL document.)

State Permit Number	Outfall	EPA Permit Number	Segment Number	Permittee Name	Flow (MGD)	Waste Load Allocation (WLA) – <i>E. coli</i> in Billion MPN/day	TMDL Comments
14905-003	001	TX0136611	1014E_02	GP 570, LTD.	0.5	1.192	New permit
15394-001	001	TX0136484	1014E_02	HARRIS COUNTY MUD NO. 438	0.05	0.119	New permit

Table 2 - *E. coli* TMDL Summary Calculations (Updates Table 53, pp. 118-119 in the TMDL document.)

Assessment Unit	TMDL (Billion MPN/day)	WLA _{WWTF} (Billion MPN/day)	WLA _{StormWater} (Billion MPN/day)	LA (Billion MPN/day)	MOS (Billion MPN/day)	Upstream Load (Billion MPN/day)	Future Growth (Billion MPN/day)
1014E_01*	236.83	71.06	145	7.78	0	0	12.99

*Both of the new facilities included in this update discharge to 1014E_02, an unassessed AU upstream of the TMDL AU. All dischargers to that AU are included in the TMDL for 1014E_01.

Appendix II. Thirteen Total Maximum Daily Loads for Indicator Bacteria in Eastern Houston Watersheds For Segment Numbers 1006F, 1006H, 1007F, 1007G, 1007H, 1007I, 1007K, 1007M, 1007O, and 1007R

TMDL Updates to the Water Quality Management Plan (WQMP): Eastern Houston Watersheds (1006F, 1006H, 1007F, 1007G, 1007H, 1007I, 1007K, 1007M, 1007O, and 1007R)

The document *Thirteen Total Maximum Daily Loads for Indicator Bacteria in Eastern Houston Watersheds For Segment Numbers 1006F, 1006H, 1007F, 1007G, 1007H, 1007I, 1007K, 1007M, 1007O, and 1007R* was adopted by the TCEQ on 09/15/2010 and approved by EPA on 09/27/10, and became an update to the state's Water Quality Management Plan (WQMP). One subsequent WQMP update prior to this one has updated the list of individual waste load allocations (WLAs) found in the original TMDL document. Additionally, one addendum to the original TMDL was submitted through the April 2013 WQMP update. This addendum added one new assessment unit (AU) to the original TMDL project.

The purpose of this update is to make the following change to the TMDL, presented in Table 1:

- update the percentages of the areas of the subwatersheds of the AUs that are designated as urbanized areas (UAs) in the Decennial Census.

The proportional area of each AU's subwatershed designated as a UA in the 2000 Decennial Census was used to determine the percentage of the stormwater loading to be allocated to regulated sources (as an aggregate allocation for all permitted stormwater sources), referred to as the "WLA_{MS4}" in the original TMDL document. Any remaining percentage was allocated to unregulated sources in the Load Allocation (LA) term. This update adjusts the stormwater allocation based on newer UA information from the 2010 Decennial Census.

The changes reflected in this update resulted in the shifting of allocations between WLA_{MS4} and LA terms in four AUs. These were originally presented in Tables 17 and 18 in the original TMDL document, and the four affected AUs are updated here in Tables 2 and 3.

Table 1 – Percentage of MS4 Jurisdiction in the TMDL Area Watershed (Updates Table 10, p. 21 in the TMDL document)

Assessment Unit	Stream Name	TPDES Number	Total Area (acres)	Area under MS4 Permit (Acres)	Percent of AU under MS4 Jurisdiction	TMDL Comments
1006F_01	Big Gulch above Tidal	WQ0004685000	3,167	3,167	100%	Subwatershed designated as UA increased from 58% to 100%
1006H_01	Spring Gully above Tidal	WQ0004685000	1,265	1,265	100%	Subwatershed designated as UA increased from 89% to 100%
1007R_03	Hunting Bayou above Tidal	WQ0004685000	9,111	9,111	100%	Subwatershed designated as UA increased from 87% to 100%
1007R_04	Hunting Bayou above Tidal	WQ0004685000	3,121	3,121	100%	Subwatershed designated as UA increased from 78% to 100%

Table 2 - *E. coli* TMDL Summary Calculations for Halls Bayou AUs (Updates Table 17, p. 44 in the TMDL document)

Assessment Unit	Sampling Location	Stream Name	TMDL (Billion MPN/day)	WLA _{WWTF} (Billion MPN/day)	WLA _{MS4} (Billion MPN/day)	LA (Billion MPN/day)	MOS (Billion MPN/day)	Future Growth (Billion MPN/day)
1006F_01	16662	Big Gulch above Tidal	14.9	0.620	12.86	0	0.744	0.676
1006H_01	16663	Spring Gully above Tidal	34.8	0.036	32.96	0	1.74	0.064
1007R_03	11129	Hunting Bayou above Tidal	192	9.539	169.8	0	9.61	3.051
1007R_04	11128	Hunting Bayou above Tidal	273	10.016	246.4	0	13.7	2.884

Table 3 - Final TMDL Allocations (Updates Table 18, p. 45 in the TMDL document)

Assessment Unit	TMDL (Billion MPN/day)	WLA _{WWTF} (Billion MPN/day)	WLA _{MS4} (Billion MPN/day)	LA (Billion MPN/day)	MOS (Billion MPN/day)
1006F_01	14.9	1.296	12.86	0	0.744
1006H_01	34.8	0.100	32.96	0	1.74
1007R_03	192	12.590	169.8	0	9.61
1007R_04	273	12.900	246.4	0	13.7

Appendix III. Fifteen Total Maximum Daily Loads for Indicator Bacteria in Watersheds Upstream of Lake Houston For Segment Numbers 1004E, 1008, 1008H, 1009, 1009C, 1009D, 1009E, 1010, and 1011

TMDL Updates to the Water Quality Management Plan (WQMP): Watersheds Upstream of Lake Houston (1004E, 1008, 1008H, 1009, 1009C, 1009D, 1009E, 1010, and 1011)

The document *Fifteen Total Maximum Daily Loads for Indicator Bacteria in Watersheds Upstream of Lake Houston For Segment Numbers 1004E, 1008, 1008H, 1009, 1009C, 1009D, 1009E, 1010, and 1011* was adopted by the TCEQ on 04/06/11 and approved by EPA on 06/29/11, and became an update to the state's Water Quality Management Plan (WQMP). Fifteen subsequent WQMP updates prior to this one have updated the list of individual waste load allocations (WLAs) found in the original TMDL document. Additionally, an addendum to the original TMDL was submitted through the October 2013 WQMP update. This addendum added six new assessment units (AUs) to the original TMDL project.

The purpose of this update is to make the following changes to the TMDL, presented in Table 1:

- update the WLA for two facilities that have increased their permitted discharges, and
- remove one canceled permit.

The changes reflected in this update resulted in the shifting of allocations between the sum of the individual WLAs and the allowance for future growth (AFG) in nine AUs. This was originally presented in Table 18 in the original TMDL document, and the nine affected AUs are included here as Table 2.

In Table 19 of the original TMDL, the WLAs for permitted facilities are the sum of the individual WLAs and the allowance for future growth within each AU. Therefore, these overall numbers did not change, and Table 19 of the TMDL remains the same.

Table 1 - Changes to Individual Waste Load Allocations (Updates Table 16, pp. 49-56 in the TMDL document.)

State Permit Number	Outfall	EPA Permit Number	Segment Number	Permittee Name	Flow (MGD)	Waste Load Allocation (WLA) – <i>E. coli</i> in Billion MPN/day	TMDL Comments
14266-001	001	TX0094315	1008_02	QUADVEST, L.P.	N/A	N/A	Permit canceled
14576-001	001	TX0127311	1009_01	HARRIS COUNTY MUD NO. 434	0.4	0.95	Increased discharge
11715-001	001	TX0068659	1010_02	TEXAS NATIONAL MUD	0.225	0.54	Increased discharge

Table 2 - *E. coli* TMDL Summary Calculations for Lake Houston Assessment Units (Updates Table 18, pp. 61 in the TMDL document.)

Assessment Unit	Sampling Location	Stream Name	TMDL (Billion MPN/day)	WLA _{WWTF} (Billion MPN/day)	WLA _{StormWater} (Billion MPN/day)	LA (Billion MPN/day)	MOS (Billion MPN/day)	Future Growth (Billion MPN/day)
1008_02	11314	Spring Creek	287	3.27	31.4	235	14.4	2.93
1008_03	11313	Spring Creek	1420	96.73	141	1050	70.9	61.37
1008_04	11312	Spring Creek	1510	132.40	146	1090	75.7	65.90
1009_01	11333	Cypress Creek	227	14.89	59.9	138	11.4	2.81
1009_02	11331	Cypress Creek	615	82.76	141	325	30.8	35.44
1009_03	11328	Cypress Creek	1340	168.21	299	690	67.0	115.79
1009_04	11324	Cypress Creek	1550	206.8	338	779	77.4	148.80
1010_02	14241	Caney Creek	245	1.4	14.8	216	12.3	0.50
1010_04	11334	Caney Creek	493	18.07	28.2	413	24.7	9.03

Appendix IV. One Total Maximum Daily Load for Dissolved Oxygen in Lake O' the Pines: For Segment Number 0403

TMDL Updates to the Water Quality Management Plan (WQMP): Lake O' the Pines (Segments 0403 and 0404)

The document *One Total Maximum Daily Load for Dissolved Oxygen in Lake O' the Pines: For Segment 0403* was adopted by the TCEQ on 04/12/06 and approved by EPA on 07/07/06, and became an update to the state's Water Quality Management Plan (WQMP). It has had two subsequent WQMP updates prior to this one that provided additional information on individual permittees in the TMDL watershed.

The purpose of this update is to provide clarification regarding phosphorus limits or monitoring requirements for the eight relevant permittees identified in the TMDL and the subsequent WQMP updates. These (all in Table 1) include:

- more stringent permit limits for one permittee that has agreed to take on the full phosphorus reductions required for the entire group of permittees listed in the TMDL,
- phosphorus monitoring requirements for the seven remaining permittees, and
- corrected flow for two permittees.

These changes do not affect the TMDL equation.

Table 1 - Point Source Dischargers in the Lake O' the Pines Watershed

State Permit Number	Outfall	EPA Permit Number	Segment Number	Permittee Name	Flow (MGD)	Waste Load Allocation (WLA) Total Phosphorus lb/yr	Waste Load Allocation (WLA) Total Phosphorus lb/day	Waste Load Allocation (WLA) Total Phosphorus kg/yr	Waste Load Allocation (WLA) Total Phosphorus kg/day	TMDL Comments
03017-000	001	TX0062936	0404	Pilgrim's Pride Corporation	3.5	44,100	120.74	20,000	54.76	This permittee is taking on the full total phosphorus load reduction required by the TMDL. Flow has been corrected.
						Existing Total Phosphorus lb/yr	Existing Total Phosphorus lb/day	Existing Total Phosphorus kg/yr	Existing Total Phosphorus kg/day	
10239-001	001	TX0071633	0404	City of Omaha	0.2	661.5*	1.81*	300.0*	0.82*	Total phosphorus monitoring
10250-001	001	TX0025437	0404	City of Pittsburg – Sparks Branch	2	3,969.0*	10.87*	1,800.0*	4.93*	Total phosphorus monitoring
10250-002	001	TX0025445	0404	City of Pittsburg – Dry Creek	0.2	1,323.0*	3.62*	600.0*	1.64*	Total phosphorus monitoring
10499-001	001	TX0027031	0404	City of Daingerfield	0.7	1,102.5*	3.02*	500.0*	1.37*	Total phosphorus monitoring
10575-004	001	TX0105171	0404	City of Mount Pleasant	2.91	5,071.5*	13.89*	2,300.0*	6.30*	Total phosphorus monitoring
14365-001	001	TX0088081	0403	City of Lone Star	0.44	1,102.5*	3.02*	500.0*	1.37*	Total phosphorus monitoring
14389-001	001	TX0024236	0403	City of Ore City	0.218	2,205.0*	6.04*	1,000.0*	2.74*	Total phosphorus monitoring; flow has been corrected
Aggregate total phosphorus loading for all eight permittees:						59,535.0	163.00	27,000.0	73.92	

*The values for the seven municipal permittees are not permit limits. These values are based on the existing loads presented in Table 2 of the original TMDL. Total phosphorus monitoring will be included in these permits. The TCEQ will evaluate the self-reported total phosphorus data for these facilities on an ongoing basis to ensure that all eight facilities as a group are meeting the combined WLA of 27,000 kg/yr of total phosphorus identified in the TMDL.

Appendix V. Six Total Maximum Daily Loads for Bacteria in Waters of the Upper Gulf Coast: Segments 2421, 2422, 2423, 2424, 2432, and 2439

TMDL Updates to the Water Quality Management Plan (WQMP): Six Total Maximum Daily Loads for Bacteria in Waters of the Upper Gulf Coast (Segments 2421, 2422, 2423, 2424, 2432, and 2439)

The document *Six Total Maximum Daily Loads for Bacteria in Waters of the Upper Gulf Coast: Segments 2421, 2422, 2423, 2424, 2432, and 2439* was adopted by the TCEQ on 08/20/08 and approved by EPA on 02/04/09, and became an update to the state's Water Quality Management Plan (WQMP). Seven subsequent WQMP updates prior to this one have updated the list of individual waste load allocations (WLAs) found in the original TMDL document. Additionally, two addenda to the original TMDL were submitted through the January 2012 and April 2012 WQMP updates. These addenda added four new assessment units (AUs) to the original TMDL project.

The purpose of this update is to make the following change to the TMDL, presented in Table 1:

- add a new permit.

Note that this is a concentration-based TMDL, and therefore there are no final TMDL equations to be affected by this change.

Table 1 - Daily Loads for WWTFs based on Concentration Allocations (Updates p. A-1 in TMDL)

State Permit Number	Outfall	EPA Permit Number	Segment Number	Permittee Name	Flow (MGD)	Waste Load Allocation (WLA) Fecal Coliform (org/day)*	Waste Load Allocation (WLA) <i>E. coli</i> (org/day) *	Waste Load Allocation (WLA) Enterococcus (org/day) *	Comments
15398-001	001	TX0136522	2422	DICK WILLIAM STREET	0.0075	56,781,177	35,772,141	9,936,706	New permit

*Concentrations limits will be based on the applicable indicator bacteria criterion geometric means (Fecal coliform or *E. coli* or Enterococcus).

Appendix VI. Three Total Maximum Daily Loads for Bacteria in the San Antonio Area, For Segment Numbers: 1910 – Salado Creek, 1910A – Walzem Creek, and 1911 – Upper San Antonio River

TMDL Updates to the Water Quality Management Plan (WQMP): Salado Creek (Segment 1910), Walzem Creek (Segment 1910A), and Upper San Antonio River (Segment 1911)

The document *Three Total Maximum Daily Loads for Bacteria in the San Antonio Area, For Segment Numbers: 1910 – Salado Creek, 1910A – Walzem Creek, and 1911 – Upper San Antonio River* was adopted by the TCEQ on 07/25/07 and approved by EPA on 09/25/07, and became an update to the state’s Water Quality Management Plan (WQMP). Four subsequent WQMP updates prior to this one have updated the list of individual waste load allocations (WLAs) found in the original TMDL document.

The purpose of this update is to make the following change to the TMDL, presented in Table 1:

- remove a permit that was withdrawn.

Table 1 – Changes to the Permitted Bacteria Allocations

State Permit Number / EPA Permit Number	Segment Number	Outfall	Permittee Name	Flow (MGD)	Waste Load Allocation (WLA) – Fecal Coliform 10 ⁶ org/day	Waste Load Allocation (WLA) – <i>E. coli</i> 10 ⁶ org/day	TMDL Comments
15242-001 / TX0135313	1910	001	TIMBERWOOD DEVELOPMENT COMPANY, L.P.	N/A	N/A	N/A	Permit withdrawn

Tables 2 and 3 provide the updated TMDL equation for the affected segment. The original TMDL used fecal coliform as the primary indicator, along with a procedure for converting fecal coliform to *E. coli*. The criteria ratio of 0.63 (126/200 = 0.63) was applied to convert fecal coliform to *E. coli*. Because this TMDL was developed without a specific allocation for future growth, a small amount was returned to the Load Allocation (LA) term from the WLA term to maintain the overall TMDL allocation (and to reverse the process used when this facility was originally added in the October 2014 update).

Table 2 - Summary of Fecal Coliform TMDL for Impaired Reach (10⁶ org/day)

Segment #	Segment Name	WLA	WLA-MS4	LA	MOS	TMDL
1910	Salado Creek	11,355	4,731,088	30,701	239,286	5,012,430

Table 3 - Summary of *E. coli* TMDL for Impaired Reach (10⁶ org/day)

Segment #	Segment Name	WLA	WLA-MS4	LA	MOS	TMDL
1910	Salado Creek	7,154	2,980,585	19,342	150,750	3,157,831