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FINAL

January 2015 Update to the Texas Water Quality Management Plan

Prepared by the:
Office of Water, Water Quality Division

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

January 2015 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.texas.gov/waterquality/assessment/WQmanagement_updates.html >

Developed in accordance with Sections 205(j), 208,
and 303 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 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 on behalf of the Governor of Texas, 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 January 2015 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. Designation of Management Agencies for Municipal Wastewater Facilities
4. 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, and 10/2014.

The Projected Effluent Limit Update section provides information compiled from November 1, 2014 through January 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 Service Area Population and Designation of Management Agency sections 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, 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
10134-008	1102	TX0117501	City of Pearland Brazoria	6.0	5	250.20	1.7	85.07			6	
10462-001	2303	TX0070211	Zapata County Zapata	1.6	5	66.72	1.9	25.35			6	
10940-001	0505	TX0026531	City of White Oak Gregg	2.0	10	166.80	3	50.04			4	
14387-001	1218	TX0125377	Bell County WCID No. 1 Bell	6.0	7	350.28	2	100.08			5	OTFL 001
	1216			1.8	5	75.06	1	15.01			6	OTFL 002 May - Oct
	1216			2.2	7	128.44	2	36.70			6	OTFL 002 Nov - Apr
15095-001	1908	TX0135691	633-4S Ranch Ltd. And Stahl Lane Ltd. Comal	0.48	5	20.02	2	8.01			4	
15279-001	1108	TX0135577	Brazoria County MUD No. 43 Brazoria	0.30	10	25.02	3	7.51			6	
15296-001	1004	TX0135755	Woodland Oaks Utility, L.P. Montgomery	0.25	10	20.85	3	6.26			6	
15297-001	1008	TX0135771	Gosling Office Park, L.L.C. Harris	0.0075	10	0.63	3	0.19			6	
15299-001	1016	TX0135798	Jarrar Holdings L.L.C. Harris	0.012	10	1.00	3	0.30			4	
15300-001	0818	TX0135801	Smith, William Donald Van Zandt	0.01	10	0.83	3	0.25			4	OTFL 001 Discharge Route
				0.04	10	3.34	3	1.00			4	OTFL 002 Discharge Route

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
15303-001	2434	TX0135828	Follets Island Custom Homes, L.L.C. Brazoria	0.048	10	4.00	3	1.20			4	
15308-001	1245	TX0135879	Fort Bend County MUD No. 142	0.45	10	37.53	3	11.26			6	Upper Oyster Creek TMDL
15309-001	1202	TX0135909	Fulshear Lakes Ltd. Fort Bend	0.72	10	60.05	3	18.01			4	
15312-001	1008	TX0135925	Rosehill Reserve Ltd. Harris	0.30	10	25.02	3	7.51			6	
15313-001	1004	TX0135941	Montgomery County MUD No. 127 Montgomery	0.60	5	25.02	1.4	7.01			6	
15314-001	1811	TX0135976	Randolph Todd Company, L.L.C. Comal	0.39	5	16.26	2	6.51			4	

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
City of Brownsville	City of Brownsville	T/C	2015	Nueces Rio Grande Coastal/ LRGVDC	2494	Cameron	11/7/2014	Rehabilitation of existing sewer infrastructure	2010	180,444
									2020	218,268
									2030	257,460
									2040	296,637
City of Castroville	City of Castroville	T/C	2015	San Antonio River	1903	Medina	12/2/2014	Additional sewer lines	2010	2,680
									2020	7,187
									2030	11,695
									2040	16,203
City of Castroville	City of Castroville	T/C	2015	San Antonio River	1903	Medina	1/26/2015	Expansion of WWTP	2010	2,680
									2020	7,187
									2030	11,695
									2040	16,203
City of Euless	City of Euless	T/C	2015	Trinity River/ NCTCOG	0841	Tarrant	1/9/2015	Extend existing Reclaimed Water System	2010	51,277
									2020	54,727
									2030	58,424
									2040	62,081
City of Houston	City of Houston	T/C	2015	San Jacinto River/ H-GAC	Various	Harris	12/1/2014	Rehabilitation/replacement of existing wastewater collection systems	2010	2,100,263
									2020	2,472,783
									2030	2,741,099
									2040	3,006,695
City of Johnson City	City of Johnson City	T/C	2015	Colorado River	1414	Blanco	11/10/2014	Improvements for existing WWTP	2010	1,440
									2020	1,590
									2030	1,740
									2040	1,890
City of Laredo	City of Laredo	T/C	2015	Rio Grande	2304	Webb	11/10/2014	Expansion of WWTP	2010	105,490
									2020	136,069
									2030	170,310
									2040	207,979
City of San Marcos	City of San Marcos	T/C	2015	Guadalupe River	1814	Hays	1/26/2015	Rehabilitation of WWTP	2010	48,814
									2020	69,906
									2030	90,990
									2040	114,477
City of Van Alstyne	City of Van Alstyne	T/C	2015	Trinity River	0821	Grayson	1/23/2015	Rehabilitation of WWTP	2010	3,046
									2020	7,500
									2030	13,500
									2040	17,000

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

Planning Agency	Service Area	DMA Needs	DMA Date
City of Euless	City of Euless	T/C	8/26/2014
City of Van Alstyne	City of Van Alstyne	T/C	8/13/2013

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 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. 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). Twelve 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 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:

- correct the flow and update the WLA for one 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 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 assessment unit. 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
13623-001	001	TX0109126	1017_01	WEST HARRIS COUNTY MUD 21	0.25	0.596	Corrected flow

Table 2 - *E. coli* TMDL Summary Calculation (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)
1017_01	173.57	74.10	58.94	6.55	0	0	33.98

Appendix II. Eight Total Maximum Daily Loads for Indicator Bacteria in Greens Bayou Above Tidal and Tributaries For Segment Numbers 1016, 1016A, 1016B, 1016C, and 1016D

TMDL Updates to the WQMP: Eight Total Maximum Daily Loads for Indicator Bacteria in Greens Bayou Above Tidal and Tributaries (Segments 1016, 1016A, 1016B, 1016C, and 1016D)

The document *Eight Total Maximum Daily Loads for Indicator Bacteria in Greens Bayou Above Tidal and Tributaries: Segments 1016, 1016A, 1016B, 1016C, and 1016D* was adopted by the TCEQ on 06/02/10 and approved by EPA on 08/12/10, and became an update to the state's Water Quality Management Plan (WQMP). It has had seven subsequent WQMP updates prior to this one that provided individual Waste Load Allocations (WLAs) for permitted facilities.

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

- add one new permit.

The change 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 three assessment units (AUs). This was originally presented in Table 17 in the TMDL document, and the three affected AUs are included here as Table 2.

In Table 18 of the TMDL, the WLAs for permitted facilities are the sum of the individual WLAs and the allowance for future growth within each assessment unit. Therefore, these overall numbers did not change, and Table 18 of the TMDL remains the same.

Table 1 – Change to Individual Waste Load Allocation (Updates Table 15, pp. 39-42 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
15299-001	001	TX0135798	1016_01	JARRAR HOLDINGS LLC	0.012	0.029	New permit

Table 2 - *E. coli* TMDL Summary Calculations For Greens Bayou Assessment Units (Updates Table 17, p. 46 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)
1016_01	11371	Greens Bayou Above Tidal	403	61.4	293	0	20.2	28.4
1016_02	11371	Greens Bayou Above Tidal	1,020	106.7	789	0	51.2	73.1
1016_03	11369	Greens Bayou Above Tidal	1,780	196	1,050	231	89.0	214

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). Twelve 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:

- add two new 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 three AUs. This was originally presented in Table 18 in the original TMDL document, and the three 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 assessment unit. 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
15297-001	001	TX0135771	1008_03	GOSLING OFFICE PARK, LLC	0.0075	0.0179	New permit
15312-001	001	TX0135925	1008H_01	ROSEHILL RESERVE, LTD	0.3	0.72	New permit

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_03	11313	Spring Creek	1420	94.1	141	1050	70.9	64.0
1008_04	11312	Spring Creek	1510	129.8	146	1090	75.7	68.5
1008H_01	11185	Willow Creek	166	16.25	14.9	104	8.28	22.6

Appendix IV. 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): Two Total Maximum Daily Loads for Bacteria in Bastrop Bay/Oyster Lake and Christmas Bay (Segments 2433OW and 2434OW), Addendum Three to Six Total Maximum Daily Loads for Bacteria in Waters of the Upper Gulf Coast

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). Six 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.

In addition, this new facility discharges into a segment not included in the original TMDL. It was part of the third addendum to the original TMDL.

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

State Permit Number / EPA Permit Number/ Outfall 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
15303-001 / TX0135828 / Outfall 001	2434	FOLLETS ISLAND CUSTOM HOMES LLC	0.048	363,399,531	228,941,704	63,594,918	New permit

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

Appendix V. One Total Maximum Daily Load for Bacteria in Upper Oyster Creek for Segment Number 1245

TMDL Updates to the Water Quality Management Plan (WQMP): Bacteria in Upper Oyster Creek (Segment 1245)

The document *One Total Maximum Daily Load for Bacteria in Upper Oyster Creek for Segment Number 1245* was adopted by the TCEQ on 08/08/07 and approved by EPA on 09/28/07, and became an update to the state’s Water Quality Management Plan (WQMP). Nine subsequent WQMP updates prior to this one have provided individual Waste Load Allocations (WLAs) for permitted facilities.

The purpose of this WQMP update is to make the following changes to the TMDL (Table 1):

- add a new permit, and
- remove an expired permit.

Table 1 –Permitted Bacteria Allocation for Amended Discharges (pp. 35-37 in original TMDL document.)

State Permit Number	Outfall	EPA Permit Number	Segment Number	Permittee Name	Flow (MGD)	Waste Load Allocation (WLA)	TMDL/ Comments
15308-001	001	TX0135879	1245	FORT BEND COUNTY MUD #142	0.45	6.71 x 10 ⁹ cfu <i>E. coli</i> per day	New permit
14917-001	001	TX0131717	1245	FORT BEND COUNTY MUD #134	NA	NA	Permit expired

Note that this TMDL was written for *E. coli* and that it used the single sample criterion of 394 cfu/100 mL.

The addition of the discharge for this facility in Allocation Reach 2 also changes the TMDL equation for the reach, given in Table 11 of the TMDL document. Note that other changes have already taken place that affected this equation, which have been outlined in previous WQMP Updates. The WLA Continuous for Allocation Reach 2 will now be 1.76 x 10¹¹ cfu *E. coli* per day.

The Allowable Loading for Allocation Reach 2 will also have to increase to allow for the increased flow (and therefore increased allowable *E. coli* concentration) in Upper Oyster Creek as a result of this new discharge. As established on pages 32 and 33 and in Table 9 of the TMDL document, this “additional loading” is determined by calculating the “...difference between loadings if WWTFs operated at their full allowable daily discharges and the loadings that would be allowable under the average WWTF discharges reported...” The actual average discharge data related to this increase in discharge are not available; therefore, it is not possible to calculate this additional loading at this time. However, as long as all new/increased discharges have *E. coli* concentrations at or below the criterion, they will result in a neutral impact on Segment 1245 by increasing stream flow while adding bacteria at concentrations meeting protective criteria, as explained in the Future Growth section of the TMDL document on page 37.