TCEQ Interoffice Memorandum

TO: Office of the Chief Clerk
Texas Commission on Environmental Quality

THRU: Chris Kozlowski, Team Leader
Water Rights Permitting Team

FROM: Calvin Clary, Project Manager
Water Rights Permitting Team

DATE: August 9, 2018

SUBJECT: Upper Trinity Regional Water District
CN600639272, RN104073945
Application No. 5778A to amend Water Use Permit No. 5778
Texas Water Code §§ 11.122, 11.042, Requiring Limited Mailed Notice
Unnamed tributary of Little Elm Creek, Trinity River Basin
Denton County

The application and partial fees were received on August 31, 2017. Additional information and fees were received on September 14, 2017, June 22, and July 20, 2018. The application was declared administratively complete and filed with the Office of the Chief Clerk on August 9, 2018. Mailed notice to the downstream water right holders of record is required for conveying water in the bed and banks of a stream pursuant to Texas Administrative Code (TAC) § 295.161(a).

Filing, recording, and notice fees have been paid in full. One-half of the use fees have been paid pursuant to 30 TAC § 295.133(b), and the application is sufficient for filing.

Calvin Clary, Project Manager
Water Rights Permitting Team
Water Rights Permitting and Availability Section

OCC Mailed Notice Required ☑YES ☐NO

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 9, 2018

Mr. James Aldredge
Lloyd Gosselink, Rochelle, and Townsend, PC
816 Congress Ave, STE 1900
Austin, Texas 78701

RE: Upper Trinity Regional Water District
CN600639272, RN104073945
Application No. 5778A to Amend Water Use Permit No. 5778
Texas Water Code §§ 11.122, 11.042, Requiring Limited Mailed Notice
Unnamed tributary of Little Elm Creek, Trinity River Basin
Denton County

Dear Mr. Aldredge:

This acknowledges the receipt, on July 20, 2018, of the requested additional information and fees in the amount of $8,750.16 (Receipt No. M828123A & M828123B, copies enclosed).

The application was declared administratively complete and filed with the Office of the Chief Clerk on August 9, 2018. Staff will continue processing the application for consideration by the Executive Director.

Please be advised that additional information may be requested during the technical review phase of the application process.

If you have any questions concerning the application, please contact me via email at calvin.clary@tceq.texas.gov or at (512) 239-4641.

Sincerely,

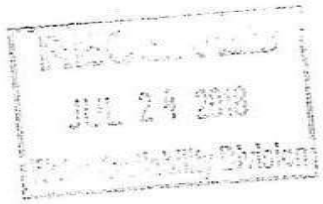
Calvin Clary, Project Manager
Water Rights Permitting Team
Water Rights Permitting and Availability Section

Enclosures

TCEQ 23-JUL-18 08:33 AM

TCEQ - A/R RECEIPT REPORT BY ACCOUNT NUMBER

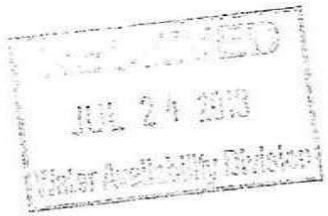
Fee Description	Fee Code / Account# / Account Name	Ref#1 / Ref#2 / Paid In By	Check Number / Card Auth. / User Data	CC Type / Tran Code / Rec Code	Slip Key / Document#	Tran Date	Tran Amount
WTR USE PERMITS	WUP WUP WATER USE PERMITS	M828123A 5778A LLOYD GOSSELINK ROCHELLE & TOWNSEND PC	35442 072018 SPREDEAU	 N CK	BS00067434 D8807059	23-JUL-18	-$8,716.32
	WUP WUP WATER USE PERMITS	M828124 204502 TETRA TECH INC	1942139 072018 SPREDEAU	 N CK	BS00067434 D8807059	23-JUL-18	-$100.00
	WUP WUP WATER USE PERMITS	M828125 5024A TETRA TECH INC	1942728 072018 SPREDEAU	 N CK	BS00067434 D8807059	23-JUL-18	-$100.00
				Total (Fee Code):			-$8,916.32
				Grand Total:			-$15,002.74



TCEQ 23-JUL-18 08:33 AM

TCEQ - A/R RECEIPT REPORT BY ACCOUNT NUMBER

Fee Description	Fee Code / Account# / Account Name	Ref#1 / Ref#2 / Paid In By	Check Number / Card Auth. / User Data	CC Type / Tran Code / Rec Code	Slip Key / Document#	Tran Date	Tran Amount
NOTICE FEES-WUP-WATER USE PERM	PTGU PTGU NOTICE FEES WUP WATER USE PERMITS	M828123B 5778A LLOYD GOSSELINK ROCHELLE & TOWNSEND PC	35442 072018 SPREDEAU	 N CK	ES00067434 D8807059	23-JUL-18	-$33.84
				Total (Fee Code):			-$33.84



Lloyd Gosselink
ATTORNEYS AT LAW
Mr. Aldredge's Direct Line: (512) 322-5859
[redacted]

816 Congress Avenue, Suite 1900
Austin, Texas 78701
Telephone: (512) 322-5800
Facsimile: (512) 472-0532
www.lglawfirm.com

July 20, 2018

Mr. Calvin Clary
Project Manager, Water Rights Permitting Team
Texas Commission on Environmental Quality (MC 160)
P.O. Box 13087
Austin, Texas 78711-3087

Re: Upper Trinity Regional Water District
CN600639272, RN104073945
Application No. 5778A to Amend Water Use Permit No. 5778
Texas Water Code §§ 11.122, 11.042, Requiring Limited Mailed Notice
Unnamed tributary of Little Elm Creek, Trinity River Basin
Collin, Cooke, Dallas, Denton, Grayson, Tarrant, and Wise Counties

Dear Calvin:

This letter is submitted on behalf of my client, the Upper Trinity Regional Water District ("UTRWD"), in response to your letter dated May 22, 2018, in connection with the above-referenced application (the "Application"). UTRWD responds to your respective requests for additional information as follows:

1. *Specify the name of the watercourse that will be used to convey return flows from the Sandbrock Wastewater Treatment Plant (WWTP). Staff notes page 1, item 3 and page 2, item 5 of the application, (the general location map and TPDES Permit No. WQ0015536001) identify Little Elm Creek as the discharge point. However, page 1, item 4 of the Supplemental Discharge Point Information Sheet and the Supplement to Application state that the bed and banks of Doe Branch will be used to transport the Sandbrock WWTP return flows from the point of discharge to the point of diversion.*

Response to Request No. 1:

In its original application, UTRWD identified all state watercourses that are currently authorized for use by the existing Water Use Permit No. 5778. For purposes of clarification, the additional authorizations requested in the Application related to the Sandbrock WWTP would authorize UTRWD to convey water in Little Elm Creek and Lewisville Lake. For additional clarification, the authorizations requested in the Application related to the additional Krum WWTP return flow diversions would authorize UTRWD to convey water in North Hickory Creek, Hickory Creek, and Lewisville Lake. All other state watercourses identified in the Application will be unaffected by any authorization requested.

2. *Provide the following additional information in support of the request to use the bed and banks of a watercourse to convey return flows from the City of Krum and the Sandbrock WWTPs for subsequent diversion and reuse:*

a. *Conveyance losses, including the method used to calculate the losses, due to transportation, evaporation (including the reservoir), seepage, channel or other associated carriage losses;*

b. *An assessment of the adequacy of the quantity and quality of the flows remaining after the proposed diversion to meet instream flow needs and bay and estuary freshwater inflow needs;*

c. *Five years of historical monthly discharge data, in electronic format (spreadsheet or database), for the City of Krum WWTP.*

Response to Request No. 2:

a. The procedure for determining conveyance losses is described in the "Accounting Plan Detailed Documentation" provided to the TCEQ with the application. Documentation under "Table I-1" describes the assumptions used for conveyance losses. These assumptions reference sections of the reuse agreement between UTRWD and the City of Dallas, as described in the introduction of the document.

b. All return flows proposed for diversion will originate from outside of the Trinity River basin and, therefore, will not constitute any portion of the natural or ordinary flows of the state watercourses in question. As a result, the District anticipates the proposed amendment will not affect the quantity and quality of flows available to meet instream flow needs and bay and estuary freshwater inflow needs.

c. See data provided electronically attached.

3. *Confirm that all of the return flows requested in the application originate from Lake Chapman water supplies.*

Response to Request No. 3:

Currently, the City of Krum does not receive any water supply from UTRWD. Therefore, none of the return flows currently discharged from the Krum WWTP originate from Lake Chapman water supplies. UTRWD anticipates that the City of Krum will receive water supply from UTRWD in the future. When that occurs, UTRWD will only divert that portion of Krum WWTP return flows attributable to Lake Chapman-originating water supplies. Similarly, UTRWD will divert only return flows from Sandbrock WWTP that originate from Lake Chapman water supplies. UTRWD has addressed this issue in more detail in the accounting plan submitted along with the Application. The accounting plan requires UTRWD to track Lake Chapman-originating water supplies throughout its system and to account for the portion of all return flows authorized for reuse that are attributable to water supplies originating from Lake Chapman.

4. *Remit fees in the amount of $17,465.48 as described below. Please make checks payable to the TCEQ or Texas Commission on Environmental Quality.*

Filing Fee (amendment)	$	100.00
Recording Fee ($1.25 x 1 pages)	$	1.25
Use Fee ($1.00 x 17,432.64 ac-ft)	$	17,432.64
Notice Fee (Trinity River Basin)	$	33.84
Total Fees	$	135.09
Fees Received	$	101.25
Fees Due	**$**	**17,465.48**

Response to Request No. 4:

As stated in TCEQ Rule 295.133(a)(4), a one-time use fee will be applied for water rights applications at a rate of "$1.00 per acre-foot to be diverted annually." The Application states that it is not requesting any increase in the amount authorized to be diverted under Permit 5778, which is 9,664 acre-feet of water annually. Consequently, UTRWD believes that the "Use Fee" reflected in the RFI has been miscalculated. Pursuant to a telephonic conversation between the undersigned counsel for UTRWD and Mr. Bert Galvan of the Water Rights Permitting and Availability office, UTRWD is submitting with this letter half of the Use Fee as stated in the RFI along with the other combined fees ($135.09) minus fees received ($101.25) under 30 Tex. Admin. Code § 295.133(b). UTRWD will continue to work with TCEQ staff to determine if any adjustment in calculation of the Use Fee is appropriate or necessary. In accordance with Rule 295.133(b), UTRWD intends to pay any Use Fee balance no later than 180 days after notice is mailed that the permit has been granted. Please find enclosed my firm's check in the amount of $8,750.16 for the fees associated with the Application as described in this response.

If you have any questions regarding the Application, please do not hesitate to contact me at (512) 322-5859.

Sincerely,

James Aldredge

Copy: Larry Patterson, UTRWD
Ronna Hartt, UTRWD
Lambeth Townsend, the Firm

Enclosures

EPA ID	TPDES Permit No.	Facility Name	Monitoring Period End Date	Outfall	Parameter	Daily Ave (MGD)
TX0024198	WQ0010729001	CITY OF KRUM WWTF	1/31/2013	001A	Flow, in conduit or thru treatment plant	.007992
TX0024198	WQ0010729001	CITY OF KRUM WWTF	2/28/2013	001A	Flow, in conduit or thru treatment plant	.008787
TX0024198	WQ0010729001	CITY OF KRUM WWTF	3/31/2013	001A	Flow, in conduit or thru treatment plant	.00832
TX0024198	WQ0010729001	CITY OF KRUM WWTF	4/30/2013	001A	Flow, in conduit or thru treatment plant	.01134
TX0024198	WQ0010729001	CITY OF KRUM WWTF	5/31/2013	001A	Flow, in conduit or thru treatment plant	.010272
TX0024198	WQ0010729001	CITY OF KRUM WWTF	6/30/2013	001A	Flow, in conduit or thru treatment plant	.009146
TX0024198	WQ0010729001	CITY OF KRUM WWTF	7/31/2013	001A	Flow, in conduit or thru treatment plant	.010894
TX0024198	WQ0010729001	CITY OF KRUM WWTF	8/31/2013	001A	Flow, in conduit or thru treatment plant	.009626
TX0024198	WQ0010729001	CITY OF KRUM WWTF	9/30/2013	001A	Flow, in conduit or thru treatment plant	.011909
TX0024198	WQ0010729001	CITY OF KRUM WWTF	10/31/2013	001A	Flow, in conduit or thru treatment plant	.023509
TX0024198	WQ0010729001	CITY OF KRUM WWTF	11/30/2013	001A	Flow, in conduit or thru treatment plant	.024979
TX0024198	WQ0010729001	CITY OF KRUM WWTF	12/31/2013	001A	Flow, in conduit or thru treatment plant	.027098
TX0024198	WQ0010729001	CITY OF KRUM WWTF	1/31/2014	001A	Flow, in conduit or thru treatment plant	.0285
TX0024198	WQ0010729001	CITY OF KRUM WWTF	2/28/2014	001A	Flow, in conduit or thru treatment plant	.0231
TX0024198	WQ0010729001	CITY OF KRUM WWTF	3/31/2014	001A	Flow, in conduit or thru treatment plant	.0244
TX0024198	WQ0010729001	CITY OF KRUM WWTF	4/30/2014	001A	Flow, in conduit or thru treatment plant	.027
TX0024198	WQ0010729001	CITY OF KRUM WWTF	5/31/2014	001A	Flow, in conduit or thru treatment plant	.026
TX0024198	WQ0010729001	CITY OF KRUM WWTF	6/30/2014	001A	Flow, in conduit or thru treatment plant	.027
TX0024198	WQ0010729001	CITY OF KRUM WWTF	7/31/2014	001A	Flow, in conduit or thru treatment plant	.026692
TX0024198	WQ0010729001	CITY OF KRUM WWTF	8/31/2014	001A	Flow, in conduit or thru treatment plant	.028754
TX0024198	WQ0010729001	CITY OF KRUM WWTF	9/30/2014	001A	Flow, in conduit or thru treatment plant	.022
TX0024198	WQ0010729001	CITY OF KRUM WWTF	10/31/2014	001A	Flow, in conduit or thru treatment plant	.024575
TX0024198	WQ0010729001	CITY OF KRUM WWTF	11/30/2014	001A	Flow, in conduit or thru treatment plant	.021535
TX0024198	WQ0010729001	CITY OF KRUM WWTF	12/31/2014	001A	Flow, in conduit or thru treatment plant	.023
TX0024198	WQ0010729001	CITY OF KRUM WWTF	1/31/2015	001A	Flow, in conduit or thru treatment plant	.025522
TX0024198	WQ0010729001	CITY OF KRUM WWTF	2/28/2015	001A	Flow, in conduit or thru treatment plant	.028
TX0024198	WQ0010729001	CITY OF KRUM WWTF	3/31/2015	001A	Flow, in conduit or thru treatment plant	.032
TX0024198	WQ0010729001	CITY OF KRUM WWTF	4/30/2015	001A	Flow, in conduit or thru treatment plant	.033
TX0024198	WQ0010729001	CITY OF KRUM WWTF	5/31/2015	001A	Flow, in conduit or thru treatment plant	.070416
TX0024198	WQ0010729001	CITY OF KRUM WWTF	6/30/2015	001A	Flow, in conduit or thru treatment plant	.029
TX0024198	WQ0010729001	CITY OF KRUM WWTF	7/31/2015	001A	Flow, in conduit or thru treatment plant	.028
TX0024198	WQ0010729001	CITY OF KRUM WWTF	8/31/2015	001A	Flow, in conduit or thru treatment plant	.0082
TX0024198	WQ0010729001	CITY OF KRUM WWTF	9/30/2015	001A	Flow, in conduit or thru treatment plant	.071
TX0024198	WQ0010729001	CITY OF KRUM WWTF	10/31/2015	001A	Flow, in conduit or thru treatment plant	.115
TX0024198	WQ0010729001	CITY OF KRUM WWTF	11/30/2015	001A	Flow, in conduit or thru treatment plant	.174
TX0024198	WQ0010729001	CITY OF KRUM WWTF	12/31/2015	001A	Flow, in conduit or thru treatment plant	.177
TX0024198	WQ0010729001	CITY OF KRUM WWTF	1/31/2016	001A	Flow, in conduit or thru treatment plant	.1281
TX0024198	WQ0010729001	CITY OF KRUM WWTF	2/29/2016	001A	Flow, in conduit or thru treatment plant	.116
TX0024198	WQ0010729001	CITY OF KRUM WWTF	3/31/2016	001A	Flow, in conduit or thru treatment plant	.163

TX0024198	WQ0010729001	CITY OF KRUM WWTF	4/30/2016	001A	Flow, in conduit or thru treatment plant	.127
TX0024198	WQ0010729001	CITY OF KRUM WWTF	5/31/2016	001A	Flow, in conduit or thru treatment plant	.151
TX0024198	WQ0010729001	CITY OF KRUM WWTF	6/30/2016	001A	Flow, in conduit or thru treatment plant	.161
TX0024198	WQ0010729001	CITY OF KRUM WWTF	7/31/2016	001A	Flow, in conduit or thru treatment plant	.09
TX0024198	WQ0010729001	CITY OF KRUM WWTF	8/31/2016	001A	Flow, in conduit or thru treatment plant	.0924
TX0024198	WQ0010729001	CITY OF KRUM WWTF	9/30/2016	001A	Flow, in conduit or thru treatment plant	.083
TX0024198	WQ0010729001	CITY OF KRUM WWTF	10/31/2016	001A	Flow, in conduit or thru treatment plant	.0928
TX0024198	WQ0010729001	CITY OF KRUM WWTF	11/30/2016	001A	Flow, in conduit or thru treatment plant	.107
TX0024198	WQ0010729001	CITY OF KRUM WWTF	12/31/2016	001A	Flow, in conduit or thru treatment plant	.099
TX0024198	WQ0010729001	CITY OF KRUM WWTF	1/31/2017	001A	Flow, in conduit or thru treatment plant	.129
TX0024198	WQ0010729001	CITY OF KRUM WWTF	2/28/2017	001A	Flow, in conduit or thru treatment plant	.135
TX0024198	WQ0010729001	CITY OF KRUM WWTF	3/31/2017	001A	Flow, in conduit or thru treatment plant	.119
TX0024198	WQ0010729001	CITY OF KRUM WWTF	4/30/2017	001A	Flow, in conduit or thru treatment plant	.1398
TX0024198	WQ0010729001	CITY OF KRUM WWTF	5/31/2017	001A	Flow, in conduit or thru treatment plant	.113
TX0024198	WQ0010729001	CITY OF KRUM WWTF	6/30/2017	001A	Flow, in conduit or thru treatment plant	.1584
TX0024198	WQ0010729001	CITY OF KRUM WWTF	7/31/2017	001A	Flow, in conduit or thru treatment plant	.104
TX0024198	WQ0010729001	CITY OF KRUM WWTF	8/31/2017	001A	Flow, in conduit or thru treatment plant	.112
TX0024198	WQ0010729001	CITY OF KRUM WWTF	9/30/2017	001A	Flow, in conduit or thru treatment plant	.103
TX0024198	WQ0010729001	CITY OF KRUM WWTF	10/31/2017	001A	Flow, in conduit or thru treatment plant	.094
TX0024198	WQ0010729001	CITY OF KRUM WWTF	11/30/2017	001A	Flow, in conduit or thru treatment plant	.101
TX0024198	WQ0010729001	CITY OF KRUM WWTF	12/31/2017	001A	Flow, in conduit or thru treatment plant	.095
TX0024198	WQ0010729001	CITY OF KRUM WWTF	1/31/2018	001A	Flow, in conduit or thru treatment plant	.093
TX0024198	WQ0010729001	CITY OF KRUM WWTF	2/28/2018	001A	Flow, in conduit or thru treatment plant	.113
TX0024198	WQ0010729001	CITY OF KRUM WWTF	3/31/2018	001A	Flow, in conduit or thru treatment plant	.062
TX0024198	WQ0010729001	CITY OF KRUM WWTF	4/30/2018	001A	Flow, in conduit or thru treatment plant	.085
TX0024198	WQ0010729001	CITY OF KRUM WWTF	5/31/2018	001A	Flow, in conduit or thru treatment plant	.096

Daily Max (MGD)	Monthly Flow Total (MG)	Days in month
.015809	0.247752	31
.036303	0.246036	28
.021877	0.25792	31
.019369	0.3402	30
.017792	0.318432	31
.013847	0.27438	30
.014641	0.337714	31
.004774	0.298406	31
.018233	0.35727	30
.05055	0.728779	31
.038472	0.74937	30
.047476	0.840038	31
.0484	0.8835	31
.05	0.6468	28
.042	0.7564	31
.054	0.81	30
.042	0.806	31
.053	0.81	30
.07466	0.827452	31
.057852	0.891374	31
.037	0.66	30
.037618	0.761825	31
.03615	0.64605	30
.039	0.713	31
.055847	0.791182	31
.042	0.784	28
.058	0.992	31
.059	0.99	30
.092105	2.182896	31
.065	0.87	30
.053	0.868	31
.0374	0.2542	31
.093	2.13	30
.317	3.565	31
.561	5.22	30
.668	5.487	31
.2226	3.9711	31
.147	3.364	29
.454	5.053	31

.354	3.81	30
.292	4.681	31
.452	4.83	30
.142	2.79	31
.246	2.8644	31
.114	2.49	30
.1572	2.8768	31
.299	3.21	30
.134	3.069	31
.22	3.999	31
.246	3.78	28
.192	3.689	31
.3912	4.194	30
.139	3.503	31
.3445	4.752	30
.164	3.224	31
.173	3.472	31
.137	3.09	30
.108	2.914	31
.106	3.03	30
.129	2.945	31
.117	2.883	31
.36	3.164	28
.167	1.922	31
.109	2.55	30
.174	2.976	31

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 25, 2018

Mr. James Aldredge
Lloyd Gosselink, Rochelle, and Townsend, PC
816 Congress Ave, STE 1900
Austin, Texas 78701

CERTIFIED MAIL

RE: Upper Trinity Regional Water District
CN600639272, RN104073945
Application No. 5778A to Amend Water Use Permit No. 5778
Texas Water Code §§ 11.122, 11.042, Requiring Limited Mailed Notice
Unnamed tributary of Little Elm Creek, Trinity River Basin
Collin, Cooke, Dallas, Denton, Grayson, Tarrant, and Wise Counties

Dear Mr. Aldredge:

This acknowledges receipt, on June 22, 2018, of the applicant's request for an extension of time to respond to the Texas Commission on Environmental Quality request for additional information letter, dated May 22, 2018.

The extension request is granted until July 21, 2018, and after that date the application may be returned pursuant to Title 30 Texas Administrative Code § 281.18. No further extensions will be granted associated with this request for information.

If you have any questions concerning the application, please contact Calvin Clary via e-mail at calvin.clary@tceq.texas.gov or by telephone at (512) 239-4641.

Sincerely,

Lori Hamilton

Lori Hamilton, Manager
Water Rights Permitting & Availability Section
Water Availability Division

LH/cc

Calvin Clary

From: James Aldredge [redacted]
Sent: Friday, June 22, 2018 10:53 AM
To: Calvin Clary
Cc: Chris Kozlowski
Subject: Application No. 5778A -- UTRWD RFI Extension Request
Attachments: JTA ltr to C. Clary re Extension of Time for RFI Response 6.22.2018.pdf

Calvin,

Please see the attached letter requesting a 30-day extension of today's deadline to respond to four RFIs you delivered to Jason Hill on May 22, 2018. Mr. Hill is no longer with my Firm, and I have been asked to respond in his place. I spoke with Chris by phone yesterday, and he indicated this request would not be a problem. Please let me know if you have any questions or would otherwise like to discuss this request in more detail.

Thanks,
James

JAMES ALDREDGE
Principal
512-322-5859 Direct
Lloyd Gosselink Rochelle & Townsend, P.C.
816 Congress Ave., Suite 1900, Austin, TX 78701
www.lglawfirm.com | 512-322-5800
News | vCard | LinkedIn | Bio

Lloyd Gosselink
ATTORNEYS AT LAW
Mr. Aldredge's Direct Line: (512) 322-5859
[redacted]

816 Congress Avenue, Suite 1900
Austin, Texas 78701
Telephone: (512) 322-5800
Facsimile: (512) 472-0532
www.lglawfirm.com

June 22, 2018

Mr. Calvin Clary
Project Manager, Water Rights Permitting Team
Texas Commission on Environmental Quality (MC 160)
P.O. Box 13087
Austin, Texas 78711-3087

VIA ELECTRONIC MAIL

Re: Upper Trinity Regional Water District
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Collin, Cooke, Dallas, Denton, Grayson, Tarrant, and Wise Counties

Dear Mr. Clary:

This letter is submitted on behalf of my client, the Upper Trinity Regional Water District ("UTRWD"), in response to your letter dated May 22, 2018, in connection with the above-referenced application (the "Application"). Due to circumstances beyond UTRWD's control, UTRWD has not completed compiling information and data necessary to respond to the four requests for information ("RFIs") you submitted in your May 22, 2018 letter. UTRWD is continuing to diligently compile the requested information. However, UTRWD respectfully requests that the Water Rights Permitting Team grant UTRWD an additional 30 days to respond to the RFIs. UTRWD proposed that a new deadline of July 21, 2018 be set for a response.

Thank you for your consideration. If you have any questions regarding the Application, please do not hesitate to contact me at (512) 322-5859.

Sincerely,

James Aldredge

Copy: Chris Kozlowski, TCEQ
Larry Patterson, UTRWD
Ronna Hartt, UTRWD
Lambeth Townsend, the Firm

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 22, 2018

Mr. Jason Hill
Lloyd Gosselink, Rochelle, and Townsend, PC
816 Congress Ave, STE 1900
Austin, Texas 78701

CERTIFIED MAIL
9489 0090 0027 6009 3871 31

RE: Upper Trinity Regional Water District
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Unnamed tributary of Little Elm Creek, Trinity River Basin
Collin, Cooke, Dallas, Denton, Grayson, Tarrant, and Wise Counties

Dear Mr. Hill:

This acknowledges receipt on August 31, 2017 of the referenced application and fees in the amount of $101.25 (Receipt No. M800038, copy enclosed).

Additional information and fees are required before the application can be declared administratively complete.

1. Specify the name of the watercourse that will be used to convey return flows from the Sandbrock Wastewater Treatment Plant (WWTP). Staff notes page 1, item 3 and page 2, item 5 of the application, (the general location map and TPDES Permit No. WQ0015536001) identify Little Elm Creek as the discharge point. However, page 1, item 4 of the Supplemental Discharge Point Information Sheet and the Supplement to Application state that the bed and banks of Doe Branch will be used to transport the Sandbrock WWTP return flows from the point of discharge to the point of diversion.

2. Provide the following additional information in support of the request to use the bed and banks of a watercourse to convey return flows from the City of Krum and the Sandbrock WWTPs for subsequent diversion and reuse:

   a. Conveyance losses, including the method used to calculate the losses, due to transportation, evaporation (including the reservoir), seepage, channel or other associated carriage losses;

   b. An assessment of the adequacy of the quantity and quality of the flows remaining after the proposed diversion to meet instream flow needs and bay and estuary freshwater inflow needs.

c. Five years of historical monthly discharge data, in electronic format (spreadsheet or database), for the City of Krum WWTP.

3. Confirm that all of the return flows requested in the application originate from Lake Chapman water supplies.

4. Remit fees in the amount of **$17,465.48** as described below. Please make checks payable to the TCEQ or Texas Commission on Environmental Quality.

Filing Fee (Amendment)	$	100.00
Recording Fee ($1.25 x 1 page)	$	1.25
Use Fee ($1.00 x 17,432.64 ac-ft)	$	17,432.64
Notice Fee (Trinity River Basin)	$	33.84
Total Fees	$	135.09
Fees Received	$	101.25
Fees Due	**$**	**17,465.48**

Please submit the requested information and fees by June 22, 2018, or the application may be returned pursuant to Title 30 Texas Administrative Code § 281.18.

If you have questions concerning this application, please contact me at calvin.clary@tceq.texas.gov or by phone at (512) 239-4641.

Sincerely,

Calvin Clary, Project Manager
Water Rights Permitting Team
Water Rights Permitting and Availability Section

Enclosure

TCEQ 05-SEP-17 09:46 AM

TCEQ - A/R RECEIPT REPORT BY ACCOUNT NUMBER

Fee Description	Fee Code / Account# / Account Name	Ref#1 / Ref#2 / Paid In By	Check Number / Card Auth. / User Data	CC Type / Tran Code / Rec Code	Slip Key / Document#	Tran Date	Tran Amount
WTR USE PERMITS	WUP WUP WATER USE PERMITS	M800038 5778 LLOYD GOSSELINK ROCHELLE & TOWNSEND PC	33740 083117 SPREDEAU	 N CK	BS00060118 D8800010	05-SEP-17	-$101.25
				Total (Fee Code):			-$101.25
				Grand Total:			-$168.93

RECEIVED
2017 SEP -6 A 11:44
WATER AVAILABILITY DIV.

Lloyd Gosselink
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Mr. Castleberry's Direct Line: (512) 322-5856
Email: [redacted]

September 14, 2017

Mr. Calvin Clary
Water Rights Permitting Team (MC 160)
Water Rights Permitting and Availability Section
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

VIA FIRST-CLASS MAIL AND ELECTRONIC TRANSMISSION

Re: Application to Amend Water Use Permit 5778
Pursuant to Texas Water Code §§ 11.042(c); 11.122
Upper Trinity Regional Water District (1601-17)

Dear Calvin:

The Upper Trinity Regional Water District recently submitted an application to amend Water Use Permit 5778 (the "Application").

Please find enclosed as a supplement to the Application an updated accounting plan (the "Plan"). The enclosed materials associated with the Plan include the following:

Attachment A – A narrative describing the Plan
Attachment B – The Excel spreadsheet of the Plan on a thumb drive

Do not hesitate to contact me at (512) 322-5856 or Ashleigh Acevedo at (512) 322-5891 if you have any questions. Thank you for your assistance with this matter.

Sincerely,

Brad B. Castleberry

BBC/plh
7443561
ENCLOSURES

cc: Mr. Larry Patterson
Ms. Ronna Hartt
Dr. Ellen T. McDonald
Ms. Ashleigh K. Acevedo

Attachment A

UPPER TRINITY REGIONAL WATER DISTRICT

REUSE OF CHAPMAN LAKE WATER

ACCOUNTING PLAN DETAILED DOCUMENTATION

Last Revised: September 3, 2017

Introduction

The purpose of this document is to provide a detailed explanation of each calculation contained in the Chapman Water Accounting Plan. This plan is to be used as described in the document "Agreement between City of Dallas and Upper Trinity Regional Water District Regarding Use of Lewisville Lake for Pass Through of Chapman Lake Water", hereafter referred to as the "reuse agreement".

The primary objective of the accounting plan is to track the District's portion of Chapman Lake water, beginning at its point of delivery to the Trinity River Basin, through the District's water treatment facilities, customers, wastewater treatment facilities and subsequently to Lewisville Lake where it is then available for reuse. The tables within the accounting plan are organized such that all input is entered into Tables I-1 through I-3. Calculations are then performed within Tables C-1 through C-6. A summary of measured and calculated values to be provided to Dallas and Denton each month is provided in Table S-1 and an annual summary is provided in Table S-2. Each accounting table is described in detail in the following sections.

Input Tables

These tables include fields for entering all measured or reported data required for model calculations. In each table all blue shaded cells require input of a number from an outside source.

Table I-1

This spreadsheet contains all input data requiring monthly updates within the accounting model. All numbers that are input are contained in the blue shaded cells of the spreadsheet. Each input field is defined below:

FIELD	DESCRIPTION
WTP/CONVEYANCE/CHANNEL LOSS DATA	
Month/year	Calendar month and year represented by data.
Lewisville Lake Water Surface Elevation, ft:	Water surface elevation of Lewisville Lake at beginning of month, obtained from USACOE.
Assumed WTP and Raw Water Conveyance Losses, Regional WTP	Losses between RWTP intake and RWTP discharge (expressed as a percentage of intake

FIELD	DESCRIPTION
(L_RWTP):	flow). Based on audit of actual metered data, as described in section 3.4(d) of reuse agreement.
Assumed WTP and Raw Water Conveyance Losses, Harpool WTP (L_HWTP):	Losses between HWTP intake and HWTP discharge (expressed as a percentage of intake flow). Based on audit of actual metered data, as described in section 3.4(d) of reuse agreement.
Assumed Doe Branch Losses, %/mile	Channel loss rate within Doe Branch. Value is determined based on sections 3.4(b) and 3.4(c) of the reuse agreement.
Assumed Channel Conveyance Losses, %/mile	Channel conveyance loss rate between the point of discharge of a WWTP and the water surface of Lewisville Lake. Value is determined based on section 4.2(c) 5. of the reuse agreement.
Assumed Consumption Losses Between WTP and Customers (L_CONS_a):	Losses between WTP discharge and Chapman Lake water customer meters (expressed as a percentage of WTP discharge flow). Based on audit of metered WTP and customer data.
Doe Branch Channel Length, miles	Length of Doe Branch between point of Chapman water discharge and Lewisville Lake. Updated as Lewisville Lake water surface elevation changes, using automatic lookup to Doe Branch Stream Distance Table (attached). Data in this table will be augmented by surveying or other appropriate data collection methods when water level falls below 515 ft.
Doe Branch Losses (L_Doe)	Computed Doe Branch losses, expressed as percentage of Chapman water entering Doe Branch. Computed as *Assumed Doe Branch Losses, %/mile* x *Doe Branch Channel Length, miles.*
RETURN FLOW FACTORS	
Lakeview Regional WWTP, Riverbend Regional WWTP, etc.	Return flow factor, as defined in definition (y) of reuse agreement. This factor will be based on an audit of actual metered data, as described in section 4.2(c) of the reuse agreement. Each WWTP will have a separate return flow factor. Only those WWTPs returning Chapman Lake water to Lake Lewisville for subsequent reuse will be assigned a non-zero return flow factor. All other WWTPs will be assigned a return flow factor of zero.

Table I-2

This spreadsheet contains all daily input associated with raw and treated water quantities. All numbers in blue shaded cells will be input into the model. Each column is described in detail below.

FIELD	DESCRIPTION
Total Amount of Water from Chapman Lake	Total amount of Chapman Lake Water delivered from Chapman Lake by pipeline to the Trinity River basin. Includes water for customers other than the District (e.g. Irving). Will be obtained from a meter located at the pipeline discharge (section 5.3 (a) of reuse agreement).
CLW (District's portion)	District's portion of Chapman Lake Water at the pipeline discharge point. To be provided to District by City of Irving.
CLW Diverted Directly to Harpool WTP	Amount of Chapman Lake water diverted directly to the Harpool WTP. Metered value.
District's CLW Discharged into Doe Branch	District's portion of Chapman Lake water discharged directly into Doe Branch. Calculated by subtracting the Chapman Lake water diverted to Harpool WTP from the total District portion of Chapman Lake water at the pipeline discharge point (section 5.3 (b) of reuse agreement).
Total Raw Water to RWTP	Total amount of raw water diverted from Lewisville Lake to RWTP. Metered value.
CLW Withdrawn from LL by Non-UTRWD Entities	Amount of Chapman Lake water diverted from Lewisville Lake by District raw water customers
Amount of Water Purchased by District from Dallas	Amount of water purchased by the District from Dallas (section 5.3 (j) 1. of reuse agreement)
Amount of Water Purchased by District from Denton	Amount of water purchased by the District from Denton (section 5.3 (j) 2. of reuse agreement)
Delivered District Water to Customers (multiple columns)	Total amount of treated water delivered to each District water customer.

Table I-3

This spreadsheet contains all daily input of measured discharges and any direct or indirect reuse losses from all District or customer wastewater treatment plants (WWTPs) participating in the Chapman Reuse program. Average daily discharge, from each WWTP, obtained from metered values, will be entered in the appropriate cells on this table. Discharge data is only required for those WWTPs that contribute return flows subsequently used by the District as part of the program.

Calculation Tables

The calculation tables contain all computations within the accounting plan. As described below, Table C-1 includes calculations to determine the percentage of Chapman Lake water to be allocated to each customer. Table C-2 contains all Chapman Lake water calculations associated with each individual customer of a regional WWTP. Table C-3 provides a sum of values for all customers of a regional WWTP. Tables C-4 and C-5 are identical to Tables C-2 and C-3, except that they are representative of individual customers, each with its own WWTP. Table C-5 provides a sum of values for all individual WWTP customers. Table C-6 sums all values for all contributing WWTPs (both regional and individual) to account for the total amount of Chapman Lake water on a daily basis.

In each of the calculation tables, column numbers are shown above each column. These numbers are referenced in the row under the column headings to help clarify the calculation that is performed in each column. Shaded columns represent columns that are taken directly from the input tables. Each calculation table is described in detail below.

Table C-1

This table includes calculations to determine the percentage of Chapman Lake water contained in the total amount of treated water delivered to each Chapman Lake water customer. Each column is described in detail below.

FIELD	COLUMN #	DESCRIPTION
CLW	C1-1	District's portion of Chapman Lake Water (from Table I-2, Column 2)
CLW Diverted Directly to Harpool WTP	C1-2	Amount of Chapman Lake water diverted directly to the future Harpool WTP (from Table I-2, Column 3)
Assumed WTP and Raw Water Conveyance Losses, Harpool WTP (L_HWTP)	C1-2a	Loss factor for losses between Harpool WTP intake and discharge (from Table I-1)
WTP, Pumping & Piping Losses in Raw Water System, Harpool WTP	C1-3	Losses between WTP intake and WTP discharge (Harpool WTP). Computed quantity.
District's CLW Discharged into Doe Branch	C1-4	District's portion of Chapman Lake water discharged directly into Doe Branch. Computed quantity.
Doe Branch Loss Factor (L_Doe)	C1-4a	Loss factor for computing conveyance losses in Doe Branch (from Table I-1)
Doe Branch Conveyance Losses	C1-5	Conveyance losses of District's portion of Chapman Lake water within Doe Branch. Computed quantity.

FIELD	COLUMN #	DESCRIPTION
CLW Discharged Directly into Doe Branch Less Doe Branch Conveyance Losses	C1-6	Total amount of Chapman Lake water available for diversion by the District after subtraction of Doe Branch conveyance losses. Computed quantity.
CLW Withdrawn from LL by Non-UTRWD Entities	C1-6a	Amount of Chapman Lake water diverted from Lewisville Lake by District raw water customers (from Table I-2, Col. 7).
CLW Available for Withdrawal by District (at intake)	C1-6b	Amount of Chapman Lake water available for diversion from Lewisville Lake by District. Computed quantity.
Assumed WTP and Raw Water Conveyance Losses, Regional WTP (L_RWTP)	C1-6c	Loss factor for losses between Regional WTP intake and discharge (from Table I-1)
Flow Weighted WTP and Raw Water Conveyance Losses, Both WTPs	C1-6d	Flow-weighted average of the Harpool and Regional loss factors (Columns [2a] and [6c], respectively)
WTP, Pumping & Piping Losses in Raw Water System, RWTP	C1-7	Losses between WTP intake and WTP discharge (RWTP). Computed quantity.
CLW Available for Distribution from RWTP	C1-7a1	Amount of Chapman Lake water available for distribution from Regional WTP. Computed quantity.
CLW Available for Distribution from HWTP	C1-7a2	Treated Chapman Lake water available for distribution from Harpool WTP. (from Table I-2, Col. 6)
Total CLW Available for Distribution from both WTPs (at WTP)	C1-7a	Total amount of Chapman Lake water available for distribution to Chapman Lake water customers from both WTPs (Column [7a1] + Column [7a2]).
Total Raw Water Withdrawn by RWTP	C1-8	Total amount of raw water diverted from Lewisville Lake to RWTP (from Table I-2, Column 7).
Total Treated Water Leaving RWTP (at WTP - i.e., at treated side)	C1-8a1	Total amount of raw water diverted from Lewisville Lake less losses between raw water and treated water meters at RWTP. Computed quantity.
Total Treated Water Leaving both WTPs (at WTP - i.e., at treated side)	C1-8a	Total amount of treated water leaving both WTPs. (Column [8a1] + Column [7a2]).
Total Treated Water Supplied to ALL Water Customers (at customer meters)	C1-8b	Total amount of treated water supplied to all water customers. Sum of daily metered values for all water customer meters, obtained from Table I-2 (includes other water customers).

FIELD	COLUMN #	DESCRIPTION
Total Treated Water Supplied to CL Water Customers (at customer meters)	C1-9	Total amount of treated water supplied to all Chapman Lake water customers. Sum of daily metered values from all Chapman water customer meters, obtained from Table I-2 (does not include other water customers).
Consumption Loss Factor (L_CONS_a)	C1-9a	Loss factor defining losses between WTP discharge and Chapman Lake water customer meters (from Table I-1).
Total Treated Water Supplied to ALL Water Customers (at WTP)	C1-9b	Amount of treated water supplied to all water customers, referenced to WTP discharge. Losses between the WTP discharge and customer meters are added to the value in Column [8b] to compute this number. Computed quantity.
Total Treated Water Supplied to CL Water Customers (at WTP)	C1-10	Amount of treated water supplied to Chapman Lake water customers, referenced to the WTP discharge. Losses between the WTP discharge and the customer meters are added to the value in Column [9] to compute this number. Computed quantity.
Total Treated Water Supplied to CL Water Customers less CLRW (at WTP)	C1-10b	Amount of treated water supplied to Chapman Lake water customers after use of Chapman Lake Reuse Water.
Total Treated Water Supplied to Other Water Customers (at WTP)	C1-10c	Amount of treated water supplied to other water customers (e.g. Flower Mound)
Potential CLW Demand from Other Water Customers (at WTP)	C1-10d	Potential Chapman Lake Water demand from other water customers.
CLW Water Supplied to Other Water Customers (at WTP)	C1-10e	Chapman Lake Water supplied to other water customers.
Treated CLW Supplied to CL Water Customers (at WTP)	C1-11	Total amount of treated Chapman Lake Water (does not include reuse water) supplied to Chapman Lake water customers, referenced to the discharge of the WTP.
Unutilized CLW (at WTP)	C1-11a	Amount of Chapman Lake Water not used to supply Chapman Water customers (referenced to discharge of WTP).

FIELD	COLUMN #	DESCRIPTION
Unutilized CLRW (at WTP)	C1-11b	Amount of Chapman Lake Reuse Water not used to supply Chapman Water customers (referenced to discharge of WTP).
Unutilized CLW and CLRW (at WTP)	C1-11ab1	Amount of Chapman Lake Water and Chapman Lake Reuse Water not used to supply Chapman Water customers (referenced to discharge of WTP). (Col. [11a] + Col. [11b])
Unutilized CLW and CLRW (at Lake)	C1-11ab2	Amount of Chapman Lake Water and Chapman Lake Reuse Water not used to supply Chapman Water customers (referenced to intake). (Col. [11ab1]/(1-col. [6c]))
Ratio CLW Supplied to CL Water Customers to Total Treated Water Supplied to CL Water Customers	C1-12	Percentage of Chapman Lake water supplied to each Chapman Lake water customer. Computed quantity.
Amount of Water Purchased by District from Dallas	C1-13	Amount of water purchased by the District from Dallas (from Table I-2)
Amount of Water Purchased by District from Denton	C1-14	Amount of water purchased by the District from Denton (from Table I-2)
Available Chapman Lake Reuse Water (CLRW) (from Table C-6; previous day)	C1-15	Amount of Chapman Lake water available for reuse on given day (at point of diversion from Lewisville Lake). Taken from column [38] of Table C-6 from previous day's calculations. Computed quantity.
Chapman Lake Reuse Water used by District	C1-15c	Amount of Chapman Lake Reuse Water used by District customers. Computer quantity.
Available Chapman Lake Reuse Water (CLRW) (at WTP)	C1-16	Amount of Chapman Lake water available for reuse on given day, referenced to treated water side of WTP.
Potential CLRW Used by CL Customers	C1-16c	Interim calculation of potential Chapman Lake Reuse water used by Chapman Lake Water Customers. If available CLRW ([C1-16]) is greater than total treated water supplied to "other" customers ([C1-10c]), then [C1-16c] is equal to [C1-16] – [C1-10c]. Otherwise equal to zero.

FIELD	COLUMN #	DESCRIPTION
CLRW Used by CL Customers	C1-16d	Total amount of Chapman Lake Reuse Water used by Chapman Lake Customers.
Total Raw Water Withdrawal minus CLRW	C1-18	Interim calculation. If total raw water withdrawal is less than available CLRW, equal to zero. Otherwise, equal to total raw water withdrawal minus available CLRW.
Potential New CLW Withdrawal (only if less than CLW Demand)	C1-19	Interim calculation. If [C1-18] is less than new CLW available then equal to [C1-18]. Otherwise equal to new CLW available ([C1-7a]).
Potential CLW Available for Supply to Other Water Customers	C1-19a	Potential Chapman Lake Water available for supply to other water customers.
Excess CLW used to make up difference between withdrawal and demand	C1-19b	Excess Chapman Lake Water used to make up difference between withdrawal and demand.
Amount of Water Calculated to be Purchased by District from Dallas/Denton	C1-20	Remaining demand that cannot be satisfied by CLW or CLRW.

Table C-2

This table contains all calculations pertaining to an individual customer of a regional WWTP. Each column is described in detail below.

FIELD	COLUMN #	DESCRIPTION
Delivered District Water to [Name of Customer]	C2-17	Total amount of treated water delivered to this particular Chapman Lake water customer (from Table I-2).
CLW Delivered to [Name of Customer] (at customer meter)	C2-18	Amount of Chapman Lake water delivered to this particular Chapman Lake water customer. Computed quantity, based on percentage of Chapman Lake water computed in Column [12] of Table C-1.

FIELD	COLUMN #	DESCRIPTION
Treated CLW Pumped to [Name of Customer] (at WTP)	C2-19	Amount of Chapman Lake water provided to this particular Chapman Lake water customer, referenced to the discharge of the WTP. Losses between the WTP discharge and the customer meter are added to the value in Column [C2-18] to compute this quantity.
Return Flow Percentage	C2-20	Return flow percentage for the WWTP used by this water customer (from Table I-1).
CLW in WWTP Discharge from Customer (CWRF)	C2-21	Portion of Chapman Lake water return flow in WWTP discharge attributed to this particular customer.
WWTP Measured Discharge	C2-22	Measured WWTP discharge from WWTP serving this particular customer (from Table I-3).
WWTP Distance from Lewisville Lake	C2-22a	Distance of WWTP discharge point to water surface of Lewisville Lake. Obtained from Stream Distance Lookup Table (attached) relating distance to water surface elevation.
Channel Loss Factor (LF)	C2-23	Channel loss factor (expressed as fraction of total Chapman Lake water in WWTP discharge). Computed as described in section 4.2(c) 5. of the reuse agreement.
Channel Losses	C2-24	Amount of Chapman Lake water lost to channel losses, attributed to this individual customer.
CWRF less Channel Losses	C2-25	Chapman water return flow minus channel losses, attributed to this individual customer.

Table C-3

This table computes the sum of relevant columns from Table C-2, for all individual customers of a regional WWTP. In addition, consideration of any direct or indirect reuse losses is included in this table. Each column is described in detail below.

FIELD	COLUMN #	DESCRIPTION
CLW Delivered to CL Water Customers (at customer meter)	C3-26	Amount of Chapman Lake water delivered to all customers of this WWTP (referenced to customer meters). Sum of column [18] for all customers of this WWTP.
Treated CLW Pumped to CL Water Customers (at WTP)	C3-27	Amount of Chapman Lake water provided to all customers of this WWTP, referenced to the discharge of the WTP. Sum of column [19] for all customers of this WWTP.
CLW in WWTP Discharge (CWRF)	C3-28	Portion of Chapman Lake water return flow in WWTP discharge. Sum of column [21] for all customers of this WWTP.
Channel Losses	C3-29	Amount of Chapman Lake water lost to channel losses following discharge from the WWTP. Sum of column [24] for all customers of this WWTP.
Direct/Indirect Reuse Losses	C3-30	Amount of Chapman Lake water lost to direct or indirect reuse (from Table I-3).
Available Chapman Lake Reuse Water	C3-31	Chapman Lake water available for reuse, attributed to this WWTP, following subtraction of channel and direct/indirect reuse losses.
WWTP Measured Discharge	C3-32	Measured WWTP discharge from this particular WWTP (from Table I-3).

Tables C-4 and C-5

These tables are identical in format to Tables C-2 and C-3, except that they apply to customers whose wastewater is treated at an individual WWTP, rather than a regional WWTP. Table C-4 contains computed quantities for each individual customer and Table C-5 sums all relevant quantities for all individual customers. Since these tables are identical in format to Tables C-2 and C-3, detailed descriptions of each column will not be repeated here.

Table C-6

This table computes the sum of relevant columns from Tables C-3 and C-5, for all WWTP customers (both individual and regional) included in the accounting model. Each column is described in detail below.

FIELD	COLUMN #	DESCRIPTION
CLW Delivered to CL Water Customers (at customer meter)	C6-33	Amount of Chapman Lake water delivered to all customers of all WWTPs (referenced to customer meters). Sum of column [26] from Tables C-3 and C-5.
Treated CLW Pumped to CL Water Customers (at WTP)	C6-34	Amount of Chapman Lake water provided to all customers of all WWTPs, referenced to the discharge of the WTP. Sum of column [27] from Tables C-3 and C-5.
CLW in WWTP Discharge (CWRF)	C6-35	Amount of Chapman Lake water return flow in WWTP discharge from all WWTPs. Sum of column [28] from Tables C-3 and C-5.
Channel Losses	C6-36	Total amount of Chapman Lake water lost to channel losses from all WWTPs. Sum of column [29] from Tables C-3 and C-5.
Direct/Indirect Reuse Losses	C6-37	Total amount of Chapman Lake water lost to direct or indirect reuse. Sum of column [30] from Tables C-3 and C-5.
Available Chapman Lake Reuse Water	C6-38	Total amount of Chapman Lake water available for reuse, following subtraction of channel and direct/indirect reuse losses. Sum of column [31] from Tables C-3 and C-5.
Total WWTP Measured Discharge	C6-39	Total measured WWTP discharge from all WWTPs. Sum of column [32] from Tables C-3 and C-5.
Unconsumed CL Water Returned to Lake (on following day)	C6-40	Amount of Chapman Lake reuse water returned to Lewisville Lake following all authorized District uses (see section 5.3 (i) 1. of reuse agreement).

Summary Tables S-1 and S-2

These tables contain the summary information to be reported to Dallas and Denton on a regular basis. Table S-1 provides a monthly summary of measured and computed values, as required in section 5.3 of the reuse agreement. Table S-2 will be provided on an annual basis and includes an annual summary of values from the monthly summary tables. All columns contained in the summary tables reference columns contained either in the input or calculation sheets. Therefore, a separate detailed description of these tables will not be presented here.

Attachment B

Lloyd Gosselink
ATTORNEYS AT LAW

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Facsimile: (512) 472-0532
www.lglawfirm.com

Mr. Castleberry's Direct Line: (512) 322-5856
Email: [redacted]

September 14, 2017

Mr. Calvin Clary
Water Rights Permitting Team (MC 160)
Water Rights Permitting and Availability Section
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

VIA FIRST-CLASS MAIL
AND ELECTRONIC TRANSMISSION

Re: Application to Amend Water Use Permit 5778
Pursuant to Texas Water Code §§ 11.042(c); 11.122
Upper Trinity Regional Water District (1601-17)

Dear Calvin:

The Upper Trinity Regional Water District recently submitted an application to amend Water Use Permit 5778 (the "Application").

Please find enclosed as a supplement to the Application an updated accounting plan (the "Plan"). The enclosed materials associated with the Plan include the following:

Attachment A – A narrative describing the Plan
Attachment B – The Excel spreadsheet of the Plan on a thumb drive

Do not hesitate to contact me at (512) 322-5856 or Ashleigh Acevedo at (512) 322-5891 if you have any questions. Thank you for your assistance with this matter.

Sincerely,

Brad B. Castleberry

BBC/plh
7443561
ENCLOSURES

cc: Mr. Larry Patterson
Ms. Ronna Hartt
Dr. Ellen T. McDonald
Ms. Ashleigh K. Acevedo

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2017 SEP 15 A 11: 27
WATER AVAILABILITY DIV.

Attachment A

UPPER TRINITY REGIONAL WATER DISTRICT

REUSE OF CHAPMAN LAKE WATER

ACCOUNTING PLAN DETAILED DOCUMENTATION

Last Revised: September 3, 2017

Introduction

The purpose of this document is to provide a detailed explanation of each calculation contained in the Chapman Water Accounting Plan. This plan is to be used as described in the document "Agreement between City of Dallas and Upper Trinity Regional Water District Regarding Use of Lewisville Lake for Pass Through of Chapman Lake Water", hereafter referred to as the "reuse agreement".

The primary objective of the accounting plan is to track the District's portion of Chapman Lake water, beginning at its point of delivery to the Trinity River Basin, through the District's water treatment facilities, customers, wastewater treatment facilities and subsequently to Lewisville Lake where it is then available for reuse. The tables within the accounting plan are organized such that all input is entered into Tables I-1 through I-3. Calculations are then performed within Tables C-1 through C-6. A summary of measured and calculated values to be provided to Dallas and Denton each month is provided in Table S-1 and an annual summary is provided in Table S-2. Each accounting table is described in detail in the following sections.

Input Tables

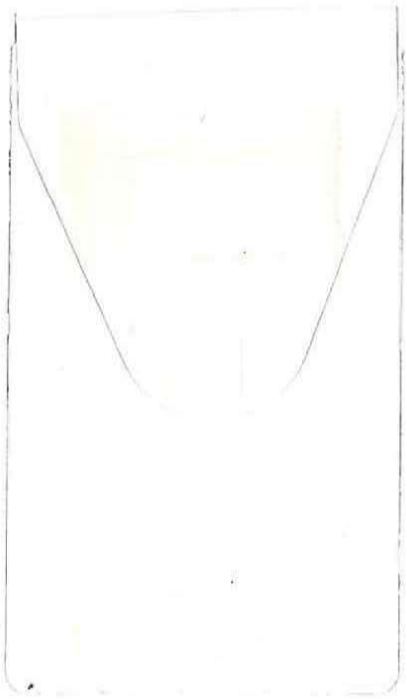
These tables include fields for entering all measured or reported data required for model calculations. In each table all blue shaded cells require input of a number from an outside source.

Table I-1

This spreadsheet contains all input data requiring monthly updates within the accounting model. All numbers that are input are contained in the blue shaded cells of the spreadsheet. Each input field is defined below:

FIELD	DESCRIPTION
WTP/CONVEYANCE/CHANNEL LOSS DATA	
Month/year	Calendar month and year represented by data.
Lewisville Lake Water Surface Elevation, ft:	Water surface elevation of Lewisville Lake at beginning of month, obtained from USACOE.
Assumed WTP and Raw Water Conveyance Losses, Regional WTP	Losses between RWTP intake and RWTP discharge (expressed as a percentage of intake

Attachment B



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Mr. Castleberry's Direct Line: (512) 322-5856
Email: [redacted]

August 31, 2017

VIA HAND DELIVERY

Mr. Chris Kozlowski (MC 160)
Texas Commission on Environmental Quality
12100 Park 35 Circle
Building F, Room 3101
Austin, Texas 78753

Re: Application to Amend Water Use Permit 5778
Pursuant to Water Code §§ 11.042(c); 11.122
Upper Trinity Regional Water District (1601-17)

Dear Chris:

Please find attached one (1) original and six (6) copies of an application to amend Water Use Permit No. 5778, which is filed on behalf of my client, the Upper Trinity Regional Water District (the "District"). Enclosed herein is my firm's check in the amount of $101.25, which is submitted as payment for the application fees. On behalf of the District, please consider me your contact for processing this application.

We look forward to working with you and your staff in processing this application. Please do not hesitate to contact me at (512) 322-5856 or Ashleigh Acevedo at (512) 322-5891 if you have any questions.

Sincerely,

Brad B. Castleberry

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2017 AUG 31 P 3:32
WATER AVAILABILITY DIV.

BBC/plh
7434251
ENCLOSURES

cc: Mr. Larry Patterson
Ms. Ronna Hartt
Ms. Ellen McDonald
Ms. Ashleigh K. Acevedo

Please Return to: Chris Kozlowski

Application No.:	5778
Date Check Received:	8-31-17
Check No.	33740
Check Amount:	101.25
Payor's Name:	Lloyd Gosselink - Upper Trinity Regional Water
Payor's Address:	816 Congress Ave. # 1900 Austin, TX 78701
Payor's Phone No:.	512-322-5800

Texas Commission on Environmental Quality

PO Box 13087, MC-160, Austin, Texas 78711-3087
Telephone (512) 239-4691, FAX (512) 239-4770

APPLICATION FOR AMENDMENT TO A WATER RIGHT

Notice: This form will not be processed until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ are paid in accordance with the Delinquent Fee and Penalty Protocol.

Customer Reference Number (if issued): CN 600639272

Note: If you do not have a Customer Reference Number, complete Section II of the Core Data Form (TCEQ-10400) and submit it with this application.

1. Name: Upper Trinity Regional Water District

   Address: P.O. Box 305, Lewisville, Texas 75067

   Phone Number: (972) 219-1228 Fax Number: (972) 221-9896

   Email Address: Larry Patterson, [redacted]

2. Applicant owes fees or penalties?
   ☐ Yes ☑ No

3. ☑ Permit No. 5778 ☐ Certificate of Adjudication No. _____

   Stream: Unnamed tributary of Little Elm Creek, Little Elm Creek, Doe Branch, Cantrell Slough, North Hickory Creek, and Ranger Branch, tributaries of the Elm Fork Trinity River (Lake Lewisville), tributary of the Trinity River
   Watershed: Trinity River Basin

   Reservoir (present condition, if one exists): N/A

   Counties: Denton, Collin, Grayson, Cooke, Wise, Dallas, and Tarrant

4. Proposed Changes To Water Right Authorizations:
   UTRWD seeks to amend the Permit to add an authorization to discharge and divert and use the bed and banks of Doe Branch to reuse Chapman Lake-derived return flows from a newly permitted wastewater treatment plant (WWTP), Sandbrock WWTP. Specifically, UTRWD seeks to add the discharge point associated with the Sandbrock WWTP to those currently specified in the Permit to divert and reuse return flows after they are passed through Lewisville Lake. Accordingly, UTRWD also seeks to modify the total appropriation of return flows to reflect updated discharges from currently listed WWTPs and the additional discharge from Sandbrock WWTP. See Supplement to Application for additional information.
   (Attach additional page as necessary, attach map/plat depicting project location, diversion point, place of use, and other pertinent data).

5. I understand the Agency may require additional information in regard to the requested amendment before considering this application.

Thomas E. Taylor
Name (sign)

Name (sign)

THOMAS E. TAYLOR
Name (print)

Name (print)

Subscribed and sworn to me as being true and correct before me this 30th day of August, 2017.

Brenda S Scott
Notary Public, State of Texas

BRENDA S. SCOTT
MY COMMISSION EXPIRES
September 8, 2018

RECEIVED
2017 AUG 31 PM 12:32
WATER AVAILABILITY DIV.

Supplemental Discharge Point Information Sheet

Discharge Point No. or Name: Sandbrock

1) Select the appropriate box for the source of water being discharged:

X Treated effluent

☐ Groundwater

☐ Other _____

2) Location of discharge point will be/is at Latitude 33.269722° N, Longitude -96.915555°W,

also bearing S 65.573816°W, 7589.15 feet from the NE corner of the Frederick H Pollard

Original Survey ~~No.~~ _____, Abstract No. 995, in Denton County, Texas.

Provide the latitude and longitude coordinates in decimal degrees, to at least six decimal places, and indicate the method used to calculate the diversion point location. (*i.e.*, GPS Unit, USGS 7.5 Topographic Map, etc.)

Diversion point location taken from Mustang SUD application for TPDES Permit WQ0015536001 filed 11/18/2016, the Denton County Appraisal District, and geometric data plotted in the GIS Permit Map file.

3) Location from County Seat: 12.97 miles in a northeasterly direction from City of Denton,

Denton County, Texas.

Location from nearby town (if other than County Seat): _____ miles in a _____

direction from _____, a nearby town shown on county highway map.

4) Zip Code: 76227

5) Water will be discharged into Little Elm Creek stream/reservoir,

(tributaries) and Lake Lewisville in Segment No. 0823 in the Trinity River Basin.

6) Water will be discharged at a maximum rate of 75.42 cfs (33,854 gpm).

7) The amount of water that will be discharged is 16,801 acre-feet per year.

8) The purpose of use for the water being discharged will be Municipal and Industrial.

9) Additional information required:

For groundwater

1. Provide water quality analysis and 24 hour pump test for the well if one has been conducted.
2. Locate and label the groundwater well(s) on a USGS 7.5 Minute Topographic Map
3. Provide a copy of the groundwater well permit if it is located in a Groundwater Conservation District.
4. What aquifer the water is being pumped from?

For treated effluent

1. What is the TPDES Permit Number? WQ0015536001 Provide a copy of the permit. (See Exhibit C)
2. Provide the monthly discharge data for the past 5 years. There is not five years of data as permit was issued on July 7, 2017
3. What % of treated water was groundwater, surface water? Treated water is 100% surface water.
4. If any original water is surface water, provide the base water right number. Permit 5778

Supplement to Application

SUPPLEMENT TO
APPLICATION TO AMEND
WATER USE PERMIT NO. 5778

PURSUANT TO
TEXAS WATER CODE §§ 11.042(c) and 11.122

UPPER TRINITY REGIONAL WATER DISTRICT

In addition to the Texas Commission on Environmental Quality ("TCEQ" or the "Commission") Application Form (Form 10201), a narrative description of the amendment to Water use Permit No. 5778 sought by Upper Trinity Regional Water District ("UTRWD") in the Application (the "Application") is provided in this supplement to the Application. The following documents are also attached as Exhibits:

A. Water Use Permit No. 5778
B. City of Krum TPDES Permit No. WQ0010729001
C. Mustang SUD TPDES Permit No. WQ0015536001
D. Authority to File Application
E. Vicinity Map
F. Photographs of Sandbrock WWTP Outfall Location
G. Accounting Plan
H. Application Fees

I. Background Information

UTRWD is a conservation and reclamation district created under Article 16, Section 59, of the Texas Constitution and is a regional water supplier to in the North Texas area. In March 2006, the Texas Commission on Environmental Quality ("TCEQ") issued Water Use Permit No. 5778 to UTRWD, which, among other things, authorizes UTRWD to transport, divert, and reuse return flows originating from Lake Chapman (Cooper Reservoir) in the Sulphur River Basin, imported into the Trinity River Basin pursuant to Certificate of Adjudication No. 03-4797, and discharged from UTRWD- or customer- or member-owned wastewater treatment plants ("WWTPs") into Lake Lewisville or tributaries of Lake Lewisville (the "Permit"). Particularly, pursuant to the Permit, UTRWD is authorized to reuse for municipal and industrial purposes the lesser of (1) not to exceed 9,664 acre-feet of Lake Chapman-derived return flows per year, or (2) the amount of Lake Chapman-derived return flows actually discharged, less conveyance losses. A copy of the Permit is attached hereto as **Exhibit A**.

The Permit identifies the WWTPs discharging return flows that UTRWD is authorized to reuse, and among those is the City of Krum's WWTP, Texas Pollutant Discharge Elimination System ("TPDES") Permit No. WQ0010729001. Since the Permit was issued, TCEQ has issued a major amendment to the TPDES Permit No. WQ0010729001, which authorized the City of Krum to increase its maximum permitted discharge of 0.70 million gallons per day ("MGD") to 0.137 MGD. A copy of TPDES Permit No. WQ0010729001 is attached hereto as **Exhibit B**.

Additionally, on July 7, 2017, TCEQ issued a new TPDES permit to Mustang Special Utility District ("Mustang SUD"), TPDES Permit No. WQ0015536001, whereby Mustang SUD is authorized to discharge not to exceed 15.0 million gallons per day of treated domestic effluent into a tributary of Lake Lewisville from the Sandbrock WWTP. These return flows are Lake Chapman-derived. A copy of TPDES Permit No. WQ0015536001 is attached hereto as **Exhibit C**.

By this Application, UTRWD is seeking to amend the Permit to authorize UTRWD to divert and reuse all return flows from the Krum WWTP in accordance with the recently amended TPDES permit underlying those discharges. In addition, UTRWD is seeking to amend the Permit to add an authorization to divert and reuse all return flows from the new Sandbrock WWTP and an authorization to use the bed and banks of Doe Branch to divert and reuse such return flows.

II. Applicant Information

Name of Applicant:	Upper Trinity Regional Water District
Address:	P.O. Box 305, Lewisville, Texas 75067
Principal Contact:	Larry N. Patterson
Telephone:	(972) 219-1228
Fax:	(972) 221-9896

III. Authorization for Filing Application

On or about August 3, 2017, the UTRWD's Board of Directors adopted a resolution authorizing the filing of the Application. A copy of the resolution is attached hereto as **Exhibit D**. By this Application, the District seeks to amend its water right to increase the amount of return flows UTRWD is authorized to divert and reuse from the City of Krum's WWTP in accordance with the recent amendment to the underlying TPDES permit and to add an authorization for UTRWD to discharge and divert and use the bed and banks of Doe Branch to reuse all return flows from Mustang SUD's newly issued TPDES permit for the Sandbrock WWTP.

IV. Source of Supply

The source of water associated with this Application is Lake Chapman-derived return flows discharged from the existing outfall at the City of Krum WWTP and the newly-permitted outfall at Mustang SUD's Sandbrock WWTP. The location of all discharge points associated with the Permit are detailed on the vicinity map, which is attached hereto as **Exhibit E**. Photographs that depict the location of the Sandbrock WWTP outfall location were excerpted from the Mustang SUD application for the Sandbrock WWTP and are attached hereto as **Exhibit F**.

V. Amount and Purpose of Diversion and Use

By this Application, UTRWD seeks to amend the Permit to reflect the newly-permitted discharges into Lake Lewisville and tributaries of Lake Lewisville. Specifically, UTRWD seeks

to amend the permitted average daily flow from the City of Krum's WWTP to reflect the recent increase from 0.137 MGD to 0.70 MGD. Additionally, UTRWD seeks to add to the Permit the return flows associated with the newly permitted discharge at Mustang SUD's Sandbrock WWTP up to the permitted daily average flow of 15.0 MGD.

UTRWD does not seek to amend the Permit to increase the total amount of return flows UTRWD is authorized to reuse (9,664 acre-feet per year). Rather, UTRWD seeks to amend the Permit to identify additional discharges from which those return flows can be derived. Thus, UTRWD will continue to divert the lesser of the total 9,664 acre-feet per year or that portion of 9,664 acre-feet that is actually discharged less conveyance losses and determined to be available to diversion and reuse in accordance with the UTRWD accounting plan, as described in the Permit (the "Accounting Plan"). As required by the Permit, the Accounting Plan tracks i) actual quantities of Lake Chapman water imported into the basin; and ii) the actual amount of return flows originally sourced by Lake Chapman-derived water discharged by UTRWD and member or customer WWTPs. An updated Accounting Plan is attached hereto as **Exhibit G**.

VI. Diversion Information

UTRWD does not seek to amend its current authorization to divert from the Joint Lewisville/UTRWD Intake Structure at a rate not to exceed 43.2 MGD.

VII. Return and Surplus Water

UTRWD seeks authorization to reuse the return flows that will be associated with the increased discharge from the City of Krum's WWTP and the new discharge from Mustang SUD's Sandbrock WWTP , so that existing and future water rights holders will not come to rely upon the availability of such return flows from this source.

Any surplus waters not reused will be returned to the Trinity River Basin.

VIII. Authorization to Use Bed and Banks Pursuant to Texas Water Code § 11.042(c)

UTRWD requests authorization to use the bed and banks of Doe Branch and then tributaries of the Trinity River to transport return flows from the Sandbrock TPDES discharge point to UTRWD's diversion point and for the additional, increased discharge of 631 acre-feet per year from the previously authorized Krum discharge point.

IX. Water Conservation, Drought Contingency and Avoidance of Waste

UTRWD has adopted a Water Conservation and Drought Contingency Plan that has been submitted to and approved by TCEQ pursuant to the requirements of 30 Texas Administrative Code ("TAC") Chapter 288. A copy of UTRWD's Water Conservation and Drought Contingency Plan is on file with TCEQ.

As defined in Texas Water Code § 11.002(8) (and mirrored in 30 TAC § 295.9), "conservation" means those practices that will "reduce the consumption of water, reduce the loss or waste of water, *improve the efficiency in the use of water*, or *increase the recycling and reuse*

of water so that a water supply is made available for future or alternative uses." [emphasis added]. By granting the Application, UTRWD will have the flexibility to more efficiently utilize its water supplies. Such efficiency, along with UTRWD's water conservation and drought contingency plan, will allow UTRWD to address current and future water supply needs in this area of the state in a manner that will allow the avoidance of waste and the achievement of water conservation.

X. Notice

Pursuant to Section 11.132 of the Texas Water Code and 30 TAC 295.158, notice must be given to persons who, in the judgment of TCEQ, may be affected by the Application. Additionally, on June 9, 2006, the Texas Supreme Court ruled on the issue of whether notice and an opportunity for a contested case hearing are required when a proposed water right amendment does not seek to increase the amount of water authorized to be diverted or the rate at which such water is authorized to be diverted.[1] In its ruling, the Court identified several "limited public interest criteria" that the agency must assess in determining whether to issue notice on an application to amend a water right.[2] Based on the Application's evaluation of such criteria, as detailed herein, no mailed or published notice is required for the Application.

a. Beneficial Use

Texas Water Code § 11.134(b)(3)(A) requires that proposed appropriations of water be intended for a beneficial use. The "beneficial use" of water is defined in Texas Water Code § 11.002(4) and 30 TAC § 297.1(8) as the use of water "which is economically necessary for a purpose authorized by [Chapter 11 of the Texas Water Code]." Through this Application, UTRWD seeks to appropriate UTRWD return flows for municipal and industrial purposes.

A "municipal" purpose of use is identified in Texas Water Code § 11.023 as a purpose for which water may be diverted and beneficially use and is defined in 30 TAC § 297.1(32) to include "the use of potable water within a community or municipality and its environs for domestic, recreation, commercial, or industrial purposes or for the water of golf courses, parks and parkways, or the use of reclaimed water in lieu of potable water for the preceding purposes." An "industrial" purpose of use is identified in Texas Water Code § 11.023 as a purpose for which water may be diverted and beneficially used and is defined in 30 TAC § 297.1(24) to include "the use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value."

As currently authorized by the Permit, UTRWD will continue to reuse the Lake Chapman-derived return flows for municipal supply and industrial use to meet the demands of the growing population within the UTRWD service area.

b. Public Welfare

The proposed amendment will allow UTRWD to provide water for beneficial uses, as defined by the Texas Water Code. Such action is not detrimental to the public welfare. Indeed,

[1] *See City of Marshall v. City of Uncertain*, 206 S.W. 3d 97 (Tex. 2006).
[2] *City of Marshall*, 206 S.W.3d at 110.

the appropriation will benefit the public welfare as it will allow UTRWD to more efficiently utilize its existing water supplies to address future demands for water in this part of the state. As discussed in further detail, below, Region C is expected to have a significant increase in population and a corresponding increase in demand for water. Allowing UTRWD to appropriate its return flows so as to meet the future demands for water will benefit the public welfare. Additionally, the Application, if granted, will not have significant environmental impacts and will have no impact on existing water rights.

c. Consistency with State and Regional Water Plans

The project area for the Application is located within the Region C Planning Area ("Region C"), as noted in the 2017 State Water Plan, *Water for Texas*. The Application is consistent with the 2017 State Water Plan, which supports reuse and identifies it as a water source: "The increase in reuse existing supply is primarily due to an increase in wastewater flows associated with an increasing population and the capacity of existing reuse facilities."[3] The Region C Water Plan also recognizes reuse of treated wastewater effluent as an increasingly important source of water, with the Region projecting 121,000 acre-feet of reuse as a water supply in 2020, and then 361,000 acre-feet by 2070.[4] Additionally, the Region C Water Plan specifically identifies reuse pursuant to the Permit as a current water management strategy.[5]

Furthermore, according to the 2017 State Water Plan, the population in Region C is expected to increase ninety-one percent (91%) between 2020 and 2070.[6] By 2070, the total water demands for the region are projected to increase 71%. Based on the increasing population and corresponding increase in municipal demands for water, allowing the Application will provide UTRWD with another source of water to meet this increasing demand in a manner that is consistent with both the State and Region C Water Plans.

d. Groundwater Assessment

There is no significant connection, if any, between groundwater resources or groundwater recharge and UTRWD's Application to appropriate surface water-based return flows. The additional water sought for reuse by the Application results from the use of surface water supplies granted pursuant to the Permit. Thus, the appropriation of surface water-based return flows by the Application will not adversely affect groundwater resources and groundwater recharge. Instead, by allowing the reuse of surface water as a water management strategy, future reliance on groundwater as a source of supply may be decreased.

e. Impacts on Other Water Rights Holders or the Environment

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[3]. *Id.* at 72.

[4]Texas Water Development Board, 2017 State Water Plan: *Summary of the 2016 Region C Regional Water Plan* p. C-4, available at http://www.twdb.texas.gov/waterplanning/swp/2017/doc/2016_RegionalSummary_C.pdf (last visited August 8, 2017).

[5] *Id.* at 5E-26 – 5E-36.

[6] Texas Water Development Board, 2017 State Water Plan, *Water for Texas, Summary of the 2016 Region C Regional Water Plan* p. C-3, available at http://www.twdb.texas.gov/waterplanning/swp/2017/doc/2016_RegionalSummary_C.pdf (last visited August 8, 2017).

Currently, the return flows requested to be added by this Application are unappropriated. Therefore, no one currently owns the rights to the requested return flows, and thus cannot be impacted by granting UTRWD's requested authorizations. Moreover, UTRWD is seeking to appropriate the full amount of permitted return flows, thus ensuring that any increase in the actual discharges made by the holders of the TPDES permits are covered pursuant to this Application. As such, existing and future water rights holders will not come to rely upon the availability of such return flows from this source.

The authorization to reuse return flows related to the Sandbrock WWTP discharges will have no environmental impact because the WWTP is yet to be constructed and thus has yet to discharge any Lake Chapman-derived water into the basin. Therefore, UTRWD's reuse of return flows associated with discharge from that facility will have no impact on the environment. Similarly, reuse of the increased return flows authorized for the City of Krum's WWTP will have no environmental impact because UTRWD seeks to reuse return flows that were not otherwise available to for environmental purposes. Moreover, the City of Krum's return flows have already been authorized for reuse purposes, so any environmental impacts associated with such reuse has already been fully evaluated and approved.

f. Availability of Unappropriated Water

The return flows sought by UTRWD pursuant to this Application are currently unappropriated. Thus, the total amount of return flows sought by UTRWD is available.

XI. Administrative Requirements and Fees

This Application provides relevant information to address the administrative requirements of 30 Texas Administrative Code § 295, Subchapter A and the requirements of Texas Water Code Chapter 11. In accordance with 30 TAC § 295.131 and other TCEQ rules relating to fees, UTRWD is submitting with this Application payment of $101.25, which is attached as **Exhibit H**. With the filing of this Application, UTRWD requests a determination of any additional fees that may be required. Upon receipt of such determination, UTRWD will forward such fees to the TCEQ.

Exhibit A

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

I hereby certify that this is a true and correct copy of a Texas Commission on Environmental Quality document, which is filed in the permanent records of the Commission. Given under my hand and the seal of office on MAR 14 2006

Texas Commission on Environmental Quality

WATER USE PERMIT

APPLICATION NO. 5778 PERMIT NO. 5778 TYPE Secs. 11.121 & 11.042

Owner:	Upper Trinity Regional Water District	Address:	900 N. Kealy Street P.O. Drawer 305 Lewisville, Texas 75067
Filed:	May 28, 2002	Granted:	MAR 03 2006
Purpose:	Municipal and Industrial	Counties:	Denton, Collin, Grayson, Cooke, Wise, Dallas, and Tarrant
Watercourse:	An unnamed tributary of Little Elm Creek, Little Elm Creek, Doe Branch, Cantrell Slough, North Hickory Creek, and Ranger Branch, tributaries of the Elm Fork Trinity River (Lake Lewisville), tributary of the Trinity River	Watershed:	Trinity River Basin

WHEREAS, the Upper Trinity Regional Water District (UTRWD) has applied for a Water Use Permit to convey and reuse, within UTRWD's service area in the Trinity River Basin, up to 9,664 acre-feet per annum of treated effluent return flows derived from water purchased from the City of Commerce, diverted from Lake Chapman (formerly Cooper Reservoir) in the Sulphur River Basin, and conveyed to the Trinity River Basin as authorized by Certificate of Adjudication No. 03-4797; and

WHEREAS, pursuant to a water supply contract dated July 5, 1990, between the City of Commerce and the UTRWD, the City of Commerce agrees to supply water from Lake Chapman in the Sulphur River Basin to UTRWD for a period of 50 years with options available thereafter for the City to terminate all or portions of the contract; and

WHEREAS, pursuant to the interbasin transfer of water authorized by Certificate of Adjudication No. 03-4797, the UTRWD acquired the right to transport up to 16,106 acre-feet of water per year from Lake Chapman in the Sulphur River Basin to the Trinity River Basin for municipal and industrial uses within the UTRWD's service area; and

WHEREAS, UTRWD has entered into agreements with the Cities of Dallas, Denton and Lewisville, including:

1) the August 24, 1998 Agreement between UTRWD and the Cities of Denton and Lewisville entitled, "Upper Trinity Regional Water District Agreement with the City of Denton and City of Lewisville Concerning Water from Cooper (Chapman) Lake," and

2) the June 19, 2003 Agreement between UTRWD and Dallas entitled, "Agreement between City of Dallas and Upper Trinity Regional Water District Regarding Use of Lake Lewisville for Pass Through of Chapman Lake Water," and

3) the August 19, 2003 agreement between UTRWD and the cities of Denton and Lewisville entitled "Addendum to Contract between City of Denton, Upper Trinity Regional Water District and City of Lewisville, Concerning Reuse of Water from Cooper (Chapman) Lake,"

which agreements are collectively referred to herein as "the Pass-Through Agreements" and which agreements allow UTRWD to pass Lake Chapman water, including Lake Chapman-derived return flows, through Lake Lewisville before diversion and use by UTRWD on the subsequent day, with express limitations; and

WHEREAS, pursuant to the Pass-Through Agreements, UTRWD seeks authorization to reuse not more than 60% of the volume of Lake Chapman water delivered to the Trinity River Basin, utilizing a single reuse and pass-through cycle for the reclaimed water; and

WHEREAS, UTRWD provided to the Executive Director an "Accounting Plan," in accordance with the Pass-Through Agreements that accounts for by source all water diverted from Lake Lewisville pursuant to all of the UTRWD's authorizations, including any and all reuse water; and

WHEREAS, UTRWD indicates it will use actual discharge measurements and the Accounting Plan to identify Lake Chapman-derived return flows which will be available for transport, diversion and reuse pursuant to this permit; and

WHEREAS, pursuant to the Pass-Through Agreements, UTRWD seeks authorization to reuse the quantity of Lake Chapman-derived return flows available for transport, diversion and use according to the Accounting Plan by conveying such return flows from wastewater treatment plants (WWTPs) operated or used by the UTRWD or its customers that discharge into either Lake Lewisville or tributaries of Lake Lewisville; and

WHEREAS, the WWTPs on or upstream of Lake Lewisville include the following:

WWTP	LATITUDE/ LONGITUDE	PERMITTED AVERAGE DAILY FLOW (Million Gallons/Day)	DISCHARGES TO
Celina	33.333° N/96.792° W	0.950 MGD	Unnamed tributary of Little Elm Creek, tributary of Lake Lewisville
Lakeview Regional	33.138° N/97.014° W	7.500 MGD	Lake Lewisville
Doe Branch (Eastside)	33.218° N/96.901° W	5.225 MGD	Doe Branch, tributary of Lake Lewisville
Riverbend	33.229° N/96.932° W	5.700 MGD	Little Elm Creek, tributary of Lake Lewisville
Peninsula	33.209° N/96.990° W	2.000 MGD	Cantrell Slough, tributary of Lake Lewisville
Krum	33.250° N/97.246° W	0.137 MGD	North Hickory Creek, tributary of Lake Lewisville
Sanger	33.363° N/97.163° W	0.980 MGD	Ranger Branch, tributary of Lake Lewisville

WHEREAS, UTRWD has entered into a contract with the City of Denton dated July 21, 1992, and entitled "CONTRACT FOR WATER TREATMENT AND TRANSMISSION SERVICES", whereby the City of Denton provides treated water service to the City of Sanger and the City of Krum only until such time as UTRWD commences direct service to such cities, including by supply of water from Lake Chapman; and

WHEREAS, UTRWD seeks authorization to use the bed and banks of an unnamed tributary of Little Elm Creek, Little Elm Creek, Doe Branch, Cantrell Slough, North Hickory Creek, Ranger Branch, all tributaries of the Elm Fork Trinity River upstream of the Lake Lewisville dam, and Lake Lewisville on the Elm Fork Trinity River to convey a combined total of 22.492 MGD (33.735 cfs) of Lake Chapman-derived return flows from the seven identified upstream WWTPs to UTRWD's existing diversion facilities on Lake Lewisville, known as the "Joint Lewisville / UTRWD Intake Structure" at the Lake Lewisville dam; and

WHEREAS, UTRWD seeks authorization to divert the Lake Chapman-derived return flows requested in the application from the Joint Lewisville / UTRWD Intake Structure; and

WHEREAS, UTRWD states that the diversion rate of Lake-Chapman derived return flows from the Joint Lewisville / UTRWD Intake Structure will not exceed a peak daily rate of more than 43.2 MGD; and

WHEREAS, UTRWD indicates its reuse of Lake Chapman-derived return flows will not include water derived from other sources, and that any of the Lake Chapman-derived return flows not consumptively used will be returned to Lake Lewisville; and

WHEREAS, UTRWD'S application for this permit was declared administratively complete by the Executive Director on May 28, 2002; and

WHEREAS, the Texas Commission on Environmental Quality (Commission) finds that jurisdiction over the application is established; and

WHEREAS, requests for a contested case hearing were received from the City of Denton and the City of Dallas and were withdrawn based on a settlement of the parties for issuance of this permit consistent with the Pass-Through Agreements and the Accounting Plan; and

WHEREAS, the Executive Director has determined that, in order to protect existing water rights and aquatic habitat in the Trinity River Basin, a special condition limiting UTRWD's diversion and use of water in accordance with the Accounting Plan, be included in the permit; and

WHEREAS, the Executive Director has determined that existing water rights will not be impacted by the discharge, conveyance, and diversion of UTRWD's Lake Chapman-derived return flows if appropriate accounting is made pursuant to the Accounting Plan to prohibit UTRWD from diverting return flows that physically and legally would have been available for impoundment, diversion, and use by water rights issued prior to the filing of this application; and

WHEREAS, the Executive Director has determined that this permit will have no impact on the existing instream uses of Lake Lewisville or its tributaries and that no special conditions to address environmental issues are needed; and

WHEREAS, the Commission has complied with the requirements of the Texas Water Code and Rules of the Texas Commission on Environmental Quality in issuing this permit.

NOW, THEREFORE, Water Use Permit No. 5778 is issued to the Upper Trinity Regional Water District, subject to the following terms and conditions:

1. USE

A. UTRWD is authorized to reuse, within its service area in the Trinity River Basin for municipal and industrial purposes, the lesser of:

1) not to exceed 9,664 acre-feet of Lake-Chapman-derived return flows per year (which represents 60% of the maximum volume of Lake Chapman water delivered to the Trinity River Basin for first use by UTRWD as authorized by Certificate of Adjudication No. 03-4797); or

2) the amount of Lake Chapman-derived return flows actually discharged less conveyance losses and as determined to be available for diversion and reuse by UTRWD according to the Accounting Plan described in Paragraph 6. SPECIAL CONDITIONS.

B. For delivery of water authorized to be used pursuant to Paragraph 1.A. USE and at the maximum rates identified in Paragraph 2. DISCHARGE POINTS AND RATES, UTRWD is authorized to use the bed and banks of an unnamed tributary of Little Elm Creek, Little Elm Creek, Doe Branch, Cantrell Slough, North Hickory Creek, Ranger Branch, tributaries of the Elm Fork Trinity River upstream of the Lake Lewisville dam, and Lake Lewisville on the Elm Fork Trinity River to convey Lake Chapman-derived treated effluent from the Celina, Lakeview Regional, Doe Branch (Eastside), Riverbend, Peninsula, Krum, and Sanger WWTPs operated or used by the UTRWD or its customers to the Joint Lewisville / UTRWD Intake Structure.

2. DISCHARGE POINTS AND RATES

A. Celina WWTP - Latitude 33.333°N Longitude 96.792°W, on an unnamed tributary of Little Elm Creek, tributary of Lake Lewisville at 0.950 MGD.

B. Lakeview Regional WWTP - Latitude 33.138°N, Longitude 97.014°W into Lake Lewisville at 7.500 MGD.

C. Doe Branch (Eastside) WWTP - Latitude 33.218°N Longitude 96.901°W on Doe Branch, tributary of Lake Lewisville at 5.225 MGD.

D. Riverbend WWTP - Latitude 33.229°N, Longitude 96.932°W on Little Elm Creek, tributary of Lake Lewisville at 5.700 MGD.

E. Peninsula WWTP - Latitude 33.209°N, Longitude 96.990°W on Cantrell Slough, tributary of Lake Lewisville at 2.000 MGD.

F. Krum WWTP - Latitude 33.250°N, 97.246°W on North Hickory Creek, tributary of Lake Lewisville at 0.137 MGD.

G. Sanger WWTP - Latitude 33.363°N, Longitude 97.163°W on Ranger Branch, tributary of Lake Lewisville at 0.980 MGD.

3. DIVERSION

UTRWD is authorized to divert water associated with this permit at a maximum rate of not to exceed 43.2 MGD from the Joint Lewisville / UTRWD Intake Structure, pursuant to the Pass-Through Agreements. All diversions of water authorized by this permit are limited to the quantity of water calculated in accordance to the Accounting Plan.

4. TIME PRIORITY

The time priority for the bed and banks authorization of this permit is May 28, 2002, however, the return flow generated from the Lake Chapman water transferred from the Sulphur River Basin to the Trinity River Basin is not subject to priority call by senior and superior water rights owners in the Trinity River Basin.

5. CONSERVATION

UTRWD shall implement water conservation plans that provide for the utilization of those practices, techniques, and technologies that reduce or maintain the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, or prevent the pollution of water, so that a water supply is made available for future or alternative uses. Such plans shall include a requirement that in every wholesale water contract entered into, on or after the effective date of this permit, including any contract extension or renewal, that each successive wholesale customer develop and implement conservation measures. If the customer intends to resell the water, then the contract for resale of the water must have water conservation requirements so that each successive wholesale customer in the resale of the water be required to implement water conservation measures.

6. SPECIAL CONDITIONS

A. This permit is issued pursuant to and contingent upon the maintenance of a valid water supply contract between UTRWD and the City of Commerce, and this permit will become null and void and of no further force or effect upon the expiration of such a contract.

B. UTRWD's rights under this permit shall be exercised in accordance with the following Pass-Through Agreements:

1) the August 24, 1998 Agreement between UTRWD and the Cities of Denton and Lewisville, entitled "Upper Trinity Regional Water District Agreement with the City of Denton and City of Lewisville Concerning Water from Cooper (Chapman) Lake," and

2) the June 19, 2003 Agreement between UTRWD and Dallas, entitled "Agreement between City of Dallas and Upper Trinity Regional Water District Regarding Use of Lake Lewisville for Pass Through of Chapman Lake Water," and

3) the August 19, 2003 agreement between UTRWD and the cities of Denton and Lewisville, entitled "Addendum to Contract between City of Denton, Upper Trinity Regional Water District and City of Lewisville, Concerning Reuse of Water from Cooper (Chapman) Lake."

This permit does not limit, amend, revoke, enlarge upon or modify any term or condition of the Pass-Through Agreements.

C. This permit will become null and void and of no further force or effect upon the expiration or sooner termination of either the agreement identified in Paragraph 6.B. SPECIAL CONDITIONS, as the August 24, 1998 Agreement, entitled "Upper Trinity Regional Water District Agreement with the City of Denton and City of Lewisville Concerning Water from Cooper (Chapman) Lake," or the August 19, 2003 agreement, identified in Paragraph 6.B. SPECIAL CONDITIONS as the "Addendum to Contract between City of Denton, Upper Trinity Regional Water District and City of Lewisville, Concerning Reuse of Water from Cooper (Chapman) Lake," which addendum incorporates the provisions, terms and conditions in the June 19, 2003 agreement between UTRWD and Dallas, also identified in Paragraph 6.B. SPECIAL CONDITIONS.

D. Transport, diversion and use of Lake Chapman-derived return flows pursuant to this permit are subject to the June 19, 2003 agreement described in Paragraph 6.B. SPECIAL CONDITIONS entitled "Agreement between City of Dallas and Upper Trinity Regional Water District Regarding Use of Lake Lewisville for Pass Through of Chapman Lake Water."

E. UTRWD may only divert Lake Chapman-derived return flows from Lake Lewisville, Trinity River Basin, pursuant to the Accounting Plan, as subject to modification from time to time in accordance with the Pass-Through Agreements. Among other things, the Accounting Plan includes key elements of a water accounting system to:

1) account for, by priority, date and source, all water discharged into and diverted from Lake Lewisville pursuant to all of the District's authorizations; and

2) measure daily discharges and adjust available amounts by conveyance losses; and

3) limit the identification of discharges as being of Lake Chapman-derived return flows, as specified in the Accounting Plan; and

4) utilize a single reuse and pass-through cycle for Lake Chapman-derived return flows, as specified in the Accounting Plan; and

5) allow diversion and use by UTRWD of Lake Chapman-derived return flows passing through Lake Lewisville, no later than the subsequent day following actual discharge of such effluent, as specified in the Accounting Plan.

F. UTRWD may not, while the Cities of Krum and Sanger are connected to the municipal water supply system of the City of Denton, identify in the Accounting Plan any discharges from the Krum and Sanger WWTPs as Lake Chapman-derived return flows available for diversion and use by UTRWD.

G. Prior to diversion of the water authorized herein, UTRWD shall ensure the installation and maintenance of a measuring device at the discharge point of each WWTP discharging Lake Chapman-derived treated effluent capable of measuring within plus or minus 5% accuracy and recording the amount of such treated water discharges for conveyance downstream to the Joint Lewisville / UTRWD Intake Structure.

H. UTRWD shall maintain electronic records, in spreadsheet or database format, of all data required to implement the Accounting Plan and make same available to the public during normal business hours. UTRWD shall submit such records to the Executive Director upon request.

I. Prior to the diversion and use of future increased discharges of treated effluent from the wastewater treatment plants identified in this Permit, UTRWD must apply for and be granted the authority to divert and use the increased amount of discharged water.

This permit is issued subject to all superior and senior water rights in the Trinity River Basin.

Permittee agrees to be bound by the terms, conditions and provisions contained herein and such agreement is a condition precedent to the granting of this permit.

All other matters requested in the application which are not specifically granted by this permit are denied.

This permit is issued subject to the Rules of the Texas Commission on Environmental Quality and to the right of continuing supervision of State water resources exercised by the Commission.

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

For the Commission

DATE ISSUED: MAR 03 2006

Exhibit B

TPDES PERMIT NO.
WQ0010729001
[For TCEQ office use only - EPA I.D. No. TX0024198]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

This is a renewal that replaces TPDES Permit No. WQ0010729001 issued on August 20, 2013.

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

City of Krum

whose mailing address is

146 West McCart Street
Krum, Texas 76249

is authorized to treat and discharge wastes from the City of Krum Wastewater Treatment Facility, SIC Code 4952

located on the east side of North Hickory Creek, approximately 0.6 mile southwest of the intersection of Farm-to-Market Road 156 and Farm-to-Market Road 1173, in Denton County, Texas 76249

to North Hickory Creek; thence to Hickory Creek; thence to Lewisville Lake in Segment No. 0823 of the Trinity River Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, **October 1, 2021.**

ISSUED DATE: December 13, 20106

For the Commission

INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through the completion of the expansion to the 0.70 million gallons per day (MGD) facility, the permittee is authorized to discharge subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 0.35 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 854 gallons per minute (gpm).

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Max. Single Grab Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (29)	15	25	35	One/week	Grab
Total Suspended Solids	15 (44)	25	40	60	One/week	Grab
Ammonia Nitrogen	3 (8.8)	6	10	15	One/week	Grab
Total Phosphorus	1 (2.9)	2	4	6	One/week	Grab
E. coli, colony forming units or most probable number per 100 ml	126	N/A	N/A	399	Five/week	Grab

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample.

4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.

6. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored once per week by grab sample.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the completion of the expansion to the 0.70 million gallons per day (MGD) facility and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 0.70 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 1,702 gallons per minute (gpm).

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (58)	15	25	35	One/week	Composite
Total Suspended Solids	15 (88)	25	40	60	One/week	Composite
Ammonia Nitrogen	3 (18)	6	10	15	One/week	Composite
Total Phosphorus	1 (5.8)	2	4	6	One/week	Composite
E. coli, colony forming units or most probable number per 100 ml	126	N/A	399	N/A	Daily	Grab

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample.

4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.

6. The effluent shall contain minimum dissolved oxygen of 4.0 mg/l and shall be monitored once per week by grab sample.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC § 305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§ 5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§ 361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in TWC § 26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

   a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with one million gallons per day or greater permitted flow.

   b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.

   c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.

   d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.

   e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.

   f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

   a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.

      i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.

b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.

c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.

d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day.

The daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

e. Bacteria concentration (*E. coli* or Enterococci) - Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).

g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

b. Grab sample - an individual sample collected in less than 15 minutes.

4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.

5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.

6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. Unless otherwise specified, a monthly effluent report shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge which is described by this permit whether or not a discharge is made for that month. Effective December 21, 2016, monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act (CWA); TWC §§ 26, 27, and 28; and THSC § 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.

b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.

c. Records of monitoring activities shall include the following:

i. date, time and place of sample or measurement;

ii. identity of individual who collected the sample or made the measurement.

iii. date and time of analysis;

iv. identity of the individual and laboratory who performed the analysis;

v. the technique or method of analysis; and

vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later

than 14 days following each schedule date to the Regional Office and the Enforcement Division (MC 224).

7. Noncompliance Notification

   a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Except as allowed by 30 TAC § 305.132, report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective September 1, 2020, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

   b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

      i. Unauthorized discharges as defined in Permit Condition 2(g).

      ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.

      iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.

   c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.

   d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

   All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   i. One hundred micrograms per liter (100 µg/L);

   ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

   iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or

   iv. The level established by the TCEQ.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   i. Five hundred micrograms per liter (500 µg/L);

   ii. One milligram per liter (1 mg/L) for antimony;

   iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or

   iv. The level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

11. All POTWs must provide adequate notice to the Executive Director of the following:

a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;

b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and

c. For the purpose of this paragraph, adequate notice shall include information on:

   i. The quality and quantity of effluent introduced into the POTW; and

   ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

   a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.

   b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:

      i. Violation of any terms or conditions of this permit;

      ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

      iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

   c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

   a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.

   b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

   c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

   d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.

   e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.

h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.

i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

3. Inspections and Entry

a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.

b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment and/or Renewal

   a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:

      i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or

      ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9;

      iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

   b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.

   c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.

   d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.

   e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.

   f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be

modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

   a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

   b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

   This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

   Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to TWC Chapter 11.

8. Property Rights

   A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

   The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

    The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy

    a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 Bankruptcy) of the United States Code (11 USC) by or against:

       i. the permittee;

ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or

iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.

b. This notification must indicate:

i. the name of the permittee and the permit number(s);

ii. the bankruptcy court in which the petition for bankruptcy was filed; and

iii. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.

2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:

a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.

b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.

4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.

5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC § 7.302(b)(6).

7. Documentation

   For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §§ 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words confidential business information on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

   a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

      If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 169) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.

c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.

10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.

11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:

a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.

b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Environmental Cleanup Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.

d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Registration, Review, and Reporting Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.

e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.

f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC § 335 and must include the following, as it pertains to wastewater treatment and discharge:

i. Volume of waste and date(s) generated from treatment process;
ii. Volume of waste disposed of on-site or shipped off-site;
iii. Date(s) of disposal;
iv. Identity of hauler or transporter;
v. Location of disposal site; and
vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC § 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC § 361.

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SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge. **The disposal of sludge by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of Class A or Class AB Sewage Sludge. This provision does not authorize the permittee to land apply sludge on property owned, leased or under the direct control of the permittee.**

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE LAND APPLICATION

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.

2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.

3. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

B. Testing Requirements

1. Sewage sludge shall be tested once during the term of this permit in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division and the Regional Director (MC Region 4) within seven (7) days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Registration, Review, and Reporting Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 4) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

2. Sewage sludge shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section I.C.

TABLE 1

Pollutant	Ceiling Concentration (Milligrams per kilogram)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B pathogen requirements.

a. For sewage sludge to be classified as Class A with respect to pathogens, the density of fecal coliform in the sewage sludge be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met.

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC § 312.82(a)(2)(A) for specific information.

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

Alternative 6 (PFRP Equivalent) - Sewage sludge that is used or disposed of must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

b. For sewage sludge to be classified as Class AB with respect to pathogens, the density of fecal coliform in the sewage sludge be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met.

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%.

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information.

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

c. Sewage sludge that meets the requirements of Class AB sewage sludge may be classified a Class A sewage sludge if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.

d. Three alternatives are available to demonstrate compliance with Class B criteria for

sewage sludge.

Alternative 1

i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.

ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;

iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and

v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

Alternative 3 - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a

single location, except as provided in paragraph v. below;

ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;

iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and

v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition, the following site restrictions must be met if Class B sludge is land applied:

i. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.

ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for 4 months or longer prior to incorporation into the soil.

iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than 4 months prior to incorporation into the soil.

iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.

v. Animals shall not be allowed to graze on the land for 30 days after application of sewage sludge.

vi. Turf grown on land where sewage sludge is applied shall not be harvested for 1 year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn.

vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of sewage sludge.
viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

ix. Land application of sludge shall be in accordance with the buffer zone requirements found in 30 TAC § 312.44.

4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been

treated in either an aerobic or anaerobic treatment process.

Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 -

i. Sewage sludge shall be injected below the surface of the land.

ii. No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.

iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10-

i. Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

ii. When sewage sludge that is incorporated into the soil is Class A or Class AB with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test	- once during the term of this permit
PCBs	- once during the term of this permit

All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

Amount of sewage sludge (*) metric tons per 365-day period	Monitoring Frequency
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter
1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

(*) *The amount of bulk sewage sludge applied to the land (dry wt. basis).*

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella sp.*, and other regulated parameters.

Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (*e.g.*, sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (*e.g.*, beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (*e.g.*, centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE FOR APPLICATION TO THE LAND MEETING CLASS A, CLASS AB or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A, Class AB or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

A. Pollutant Limits

Table 2

Pollutant	Cumulative Pollutant Loading Rate (pounds per acre)*
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

Pollutant	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report Only
Nickel	420
Selenium	36
Zinc	2800

*Dry weight basis

B. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B pathogen reduction requirements as defined above in Section I.B.3.

C. Management Practices

1. Bulk sewage sludge shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.

2. Bulk sewage sludge not meeting Class A requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.

3. Bulk sewage sludge shall be applied at or below the agronomic rate of the cover crop.

4. An information sheet shall be provided to the person who receives bulk sewage sludge sold or given away. The information sheet shall contain the following information:

   a. The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.

   b. A statement that application of the sewage sludge to the land is prohibited except in accordance with the instruction on the label or information sheet.

   c. The annual whole sludge application rate for the sewage sludge application rate for the sewage sludge that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

1. If bulk sewage sludge is applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk sewage sludge is proposed to be applied. The notice shall include:

   a. The location, by street address, and specific latitude and longitude, of each land application site.

   b. The approximate time period bulk sewage sludge will be applied to the site.

   c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk sewage sludge.

2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

E. Record keeping Requirements

The sludge documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at

the facility site and/or shall be readily available for review by a TCEQ representative for a period of five years. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.

2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B sludge, if applicable).

3. A description of how the vector attraction reduction requirements are met.

4. A description of how the management practices listed above in Section II.C are being met.

5. The following certification statement:

   "I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 312.83(b) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:

   a. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.

   b. The location, by street address, and specific latitude and longitude, of each site on which sludge is applied.

   c. The number of acres in each site on which bulk sludge is applied.

   d. The date and time sludge is applied to each site.

e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.

f. The total amount of sludge applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 4) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year the following information. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (*e.g.*, sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (*e.g.*, beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (*e.g.*, centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

3. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.

4. The frequency of monitoring listed in Section I.C. that applies to the permittee.

5. Toxicity Characteristic Leaching Procedure (TCLP) results.

6. PCB concentration in sludge in mg/kg.

7. Identity of hauler(s) and TCEQ transporter number.

8. Date(s) of transport.

9. Texas Commission on Environmental Quality registration number, if applicable.

10. Amount of sludge disposal dry weight (lbs/acre) at each disposal site.

11. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.

12. Level of pathogen reduction achieved (Class A, Class AB or Class B).

13. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B sludge, include information on how site restrictions were met.

14. Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella sp.*, and other regulated parameters.

15. Vector attraction reduction alternative used as listed in Section I.B.4.

16. Amount of sludge transported in dry tons/year.

17. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge treatment activities, shall be attached to the annual reporting form.

18. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.

    a. The location, by street address, and specific latitude and longitude.

    b. The number of acres in each site on which bulk sewage sludge is applied.

    c. The date and time bulk sewage sludge is applied to each site.

    d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk sewage sludge applied to each site.

    e. The amount of sewage sludge (i.e., dry tons) applied to each site.

    The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

A. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC § 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.

B. If the permittee generates sewage sludge and supplies that sewage sludge to the owner or operator of a municipal solid waste landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.

C. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

D. Sewage sludge shall be tested once during the term of this permit in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 261.24. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

   Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division and the Regional Director (MC Region 4) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

   The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Registration, Review, and Reporting Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 4) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year.

E. Sewage sludge shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.

F. Record keeping Requirements

   The permittee shall develop the following information and shall retain the information for five years.

1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.

2. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

G. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 4) and Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year the following information. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (*e.g.*, sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (*e.g.*, beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (*e.g.*, centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. Toxicity Characteristic Leaching Procedure (TCLP) results.

3. Annual sludge production in dry tons/year.

4. Amount of sludge disposed in a municipal solid waste landfill in dry tons/year.

5. Amount of sludge transported interstate in dry tons/year.

6. A certification that the sewage sludge meets the requirements of 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.

7. Identity of hauler(s) and transporter registration number.

8. Owner of disposal site(s).

9. Location of disposal site(s).

10. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION IV. REQUIREMENTS APPLYING TO SLUDGE TRANSPORTED TO ANOTHER FACILITY FOR FURTHER PROCESSING

These provisions apply to sludge that is transported to another wastewater treatment facility or facility that further processes sludge. These provisions are intended to allow transport of sludge to facilities that have been authorized to accept sludge. These provisions do not limit the ability of the receiving facility to determine whether to accept the sludge, nor do they limit the ability of the receiving facility to request additional testing or documentation.

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.

2. Sludge may only be transported using a registered transporter or using an approved pipeline.

B. Record Keeping Requirements

1. For sludge transported by an approved pipeline, the permittee must maintain records of the following:

   a. the amount of sludge transported;

   b. the date of transport;

   c. the name and TCEQ permit number of the receiving facility or facilities;

   d. the location of the receiving facility or facilities;

   e. the name and TCEQ permit number of the facility that generated the waste; and

   f. copy of the written agreement between the permittee and the receiving facility to accept sludge.

2. For sludge transported by a registered transporter, the permittee must maintain records of the completed trip tickets in accordance with 30 TAC § 312.145(a)(1)-(7) and amount of sludge transported.

3. The above records shall be maintained on-site on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for at least five years.

C. Reporting Requirements

The permittee shall report the following information annually to the TCEQ Regional Office (MC Region 4) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (*e.g.*, sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (*e.g.*, beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (*e.g.*, centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. the annual sludge production;

3. the amount of sludge transported;

4. the owner of each receiving facility;

5. the location of each receiving facility; and

6. the date(s) of disposal at each receiving facility.

TCEQ Revision 01/2016

OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

   This Category C facility must be operated by a chief operator or an operator holding a Category C license or higher. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift which does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

2. The facility is not located in the Coastal Management Program boundary.

3. The permittee is hereby placed on notice that this permit may be reviewed by the TCEQ after the completion of any new intensive water quality survey on Segment No. 0823 of the Trinity River Basin and any subsequent updating of the water quality model for Segment No. 0823, to determine if the limitations and conditions contained herein are consistent with any such revised model. The permit may be amended, pursuant to 30 TAC § 305.62, as a result of such review. The permittee is also hereby placed on notice that effluent limits may be made more stringent at renewal based on, for example, any change to modeling protocol approved in the TCEQ Continuing Planning Process.

4. The permittee shall provide nuisance odor prevention for both phases of the permit in accordance with 30 TAC § 309.13(e)(2). A nuisance odor prevention plan was submitted to the TCEQ on July 18, 2011 and approved on July 26, 2011 (log # 0711/039). The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). (See Attachment A.)

5. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.

6. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, 5/week may be reduced to 3/week in the Interim phase and daily may be reduced to 5/week in the Final phase. **A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148).** The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last

violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.

7. The permittee has submitted plans and specifications to the Texas Water Development Board (TWDB), which were approved by the TWDB on December 10, 2013 (on file). The TCEQ will accept the TWDB approval as fulfilling the requirement for a summary transmittal letter in accordance with the requirements in 30 TAC § 217.6(d), as was required in the permit issued on August 20, 2013.

8. The permittee shall notify the TCEQ Regional Office (MC Region 4) and the Applications Review and Processing Team (MC 148) of the Water Quality Division, in writing at least forty-five (45) days prior to the completion of the Final phase facilities on Notification of Completion Form 20007.

9. **The permittee shall comply with these requirements prior to the use of the southeastern pond as an equalization basin.**

   A. Facilities for the retention of treated or untreated wastewater shall be adequately lined to control seepage. The following methods of pond lining are acceptable.

      a. In-situ clay soils or placed and compacted clay soils meeting the following requirements:

         1) More than 30% passing a No. 200 mesh sieve
         2) Liquid limit greater than 30%
         3) Plasticity index greater than 15
         4) A minimum thickness of 2 feet
         5) Permeability equal to or less than $1x10^{-7}$ cm/sec (*)
         6) Soil compaction will be 95% standard proctor at optimum moisture content (*)

         (*) For new and modified ponds only.

      b. Membrane lining with a minimum thickness of 20 mils, and an underdrain leak detection system.

      c. An alternate method of pond lining may be utilized with prior approval from the Executive Director.

      The permittee shall furnish certification by a Texas Licensed Professional Engineer that the completed pond lining meets the appropriate criteria above prior to utilization of the pond as an equalization basin. The certification shall be sent to the TCEQ Regional Office (MC Region 4), the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division, and the Water Quality Assessment Team (MC 150) of the Water Quality Division. A copy of the pond liner certification shall be available at the plant site for inspection by authorized representatives of the TCEQ.

   B. Prior to utilization of the southeastern pond with necessary modifications for the equalization basin, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary submittal letter in accordance with the requirements in 30 TAC § 217.6(d). If requested by the Wastewater Permitting Section, the permittee shall submit plans, specifications and a final engineering design report which comply with 30

TAC Chapter 217, Design Criteria for Wastewater Treatment Systems. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

10. The permittee submitted a closure plan dated August 18, 2011. The permittee shall submit quarterly progress reports on the progress of the removal of accumulated solids in the existing ponds and pond closure in accordance with the actions described in the plan submitted August 18, 2011 titled Closure Plan Summary Letter, City of Krum. The requirement to submit quarterly progress reports shall expire upon the submission of a final progress report submitted after all accumulated solids have been removed from the existing ponds and the ponds have undergone final closure.

    PROGRESS REPORT DATES
    January 1
    April 1
    July 1
    October 1

    The quarterly progress reports shall include a discussion of the progress toward attaining removal of accumulated solids from all ponds and final pond closures. Reports at minimum must contain a discussion of actions undertaken the previous quarter and updated estimates for completing solids removal and pond closure.

    All reports shall be submitted to the TCEQ Regional Office (MC Region 4).

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The following pollutants may not be introduced into the treatment facility:

   a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, waste streams with a closed cup flash point of less than 140° Fahrenheit (60° Celsius) using the test methods specified in 40 CFR § 261.21;

   b. Pollutants which will cause corrosive structural damage to the POTW, but in no case shall there be discharges with a pH lower than 5.0 standard units, unless the works are specifically designed to accommodate such discharges;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;

   d. Any pollutant, including oxygen demanding pollutants (e.g., biological oxygen demand or BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;

   e. Heat in amounts which will inhibit biological activity in the POTW, resulting in Interference, but in no case shall there be heat in such quantities that the temperature at the POTW treatment plant exceeds 104° Fahrenheit (40° Celsius) unless the Executive Director, upon request of the POTW, approves alternate temperature limits;

   f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

   g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

   h. Any trucked or hauled pollutants except at discharge points designated by the POTW.

2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under 40 CFR Part 403 *[rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798].*

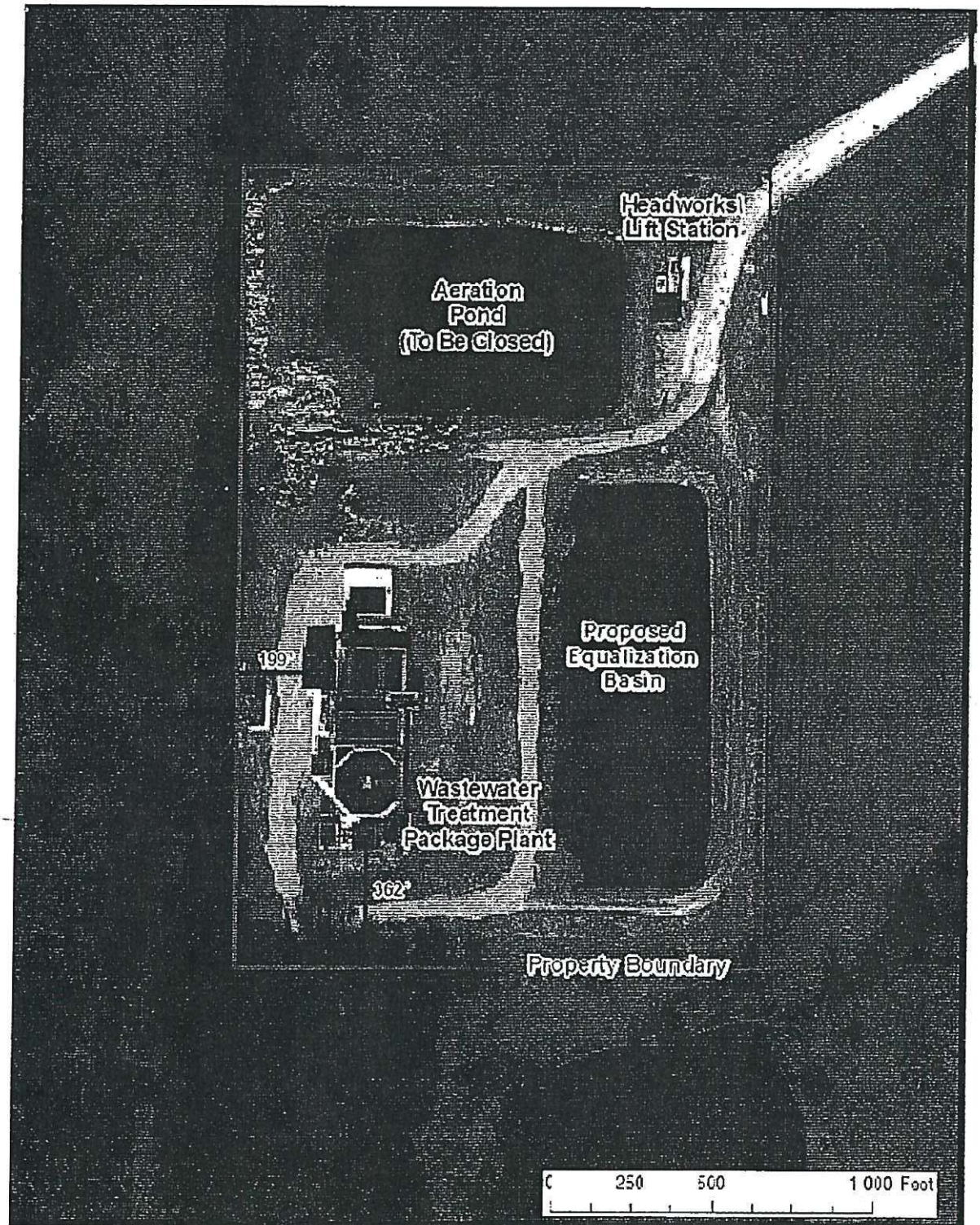
3. The permittee shall provide adequate notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days subsequent to the permittee's knowledge of either of the following:

   a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and

   b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

   Any notice shall include information on the quality and quantity of effluent to be introduced into the treatment works and any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

City of Krum
WQ0010729001
Attachment A



FREESE NICHOLS

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CITY OF KRUM

TPDES Permit Application

Buffer Zone Map

Exhibit C

TPDES PERMIT NO.
WQ0015536001
[For TCEQ office use only - EPA I.D. No. TX0137464]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

Mustang Special Utility District

whose mailing address is

7985 Farm-to-Market Road 2931
Aubrey, Texas 76227

is authorized to treat and discharge wastes from the Sandbrock Wastewater Treatment Facility, SIC Code 4952

located on the west side of Farm-to-Market Road 1385, approximately 0.2 miles south of the intersection of Farm-to-Market 1385 and Farm-to-Market Road 428 in Denton County, Texas 76227

to Little Elm Creek; thence to Lake Lewisville in Segment No. 0823 of the Trinity River Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, **October 1, 2021**.

ISSUED DATE: July 7, 2017

For the Commission

INTERIM I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through the completion of expansion to the 5.0 million gallons per day (MGD) facility, the permittee is authorized to discharge subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 0.2 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 451 gallons per minute (gpm).

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Max. Single Grab Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (17)	15	25	35	One/week	Grab
Total Suspended Solids	15 (25)	25	40	60	One/week	Grab
Ammonia Nitrogen	3 (5.0)	6	10	15	One/week	Grab
Total Phosphorus	1.0 (1.7)	2	4	6	One/week	Grab
E. coli, colony-forming units or most probable number per 100 ml	126	N/A	N/A	399	One/month	Grab

2. The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes (based on peak flow), and shall be monitored five times per week by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 5.0 mg/l and shall be monitored once per week by grab sample.

INTERIM II EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the completion of expansion to the 5.0 million gallons per day (MGD) facility and lasting through the completion of expansion to the 15.0 MGD facility, the permittee is authorized to discharge subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 5.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 11,285 gallons per minute (gpm).

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (209)	10	20	30	Five/week	Composite
Total Suspended Solids	5 (209)	10	20	30	Five/week	Composite
Ammonia Nitrogen	2 (83)	5	10	15	Five/week	Composite
Total Phosphorus	1.0 (42)	2	4	6	Five/week	Composite
E. coli, colony-forming units or most probable number per 100 ml	126	N/A	399	N/A	One/week	Grab

2. The effluent shall contain a chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l chlorine residual and shall monitor chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored five times per week by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored five times per week by grab sample.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the completion of expansion to the 15.0 million gallons per day (MGD) facility and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 15.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 33,854 gallons per minute (gpm).

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (626)	10	20	30	Five/week	Composite
Total Suspended Solids	5 (626)	10	20	30	Five/week	Composite
Ammonia Nitrogen	1.5 (188)	5	10	15	Five/week	Composite
Total Phosphorus	1.0 (125)	2	4	6	Five/week	Composite
E. coli, colony-forming units or most probable number per 100 ml	126	N/A	399	N/A	Five/week	Grab

2. The effluent shall contain a chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorine contact chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l chlorine residual and shall monitor chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored five times per week by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored five times per week by grab sample.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC § 305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§ 5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§ 361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in TWC § 26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

   a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with one million gallons per day or greater permitted flow.

   b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.

   c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.

   d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.

   e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.

   f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

   a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.

      i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.

b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.

c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.

d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day.

The daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

e. Bacteria concentration (*E. coli* or Enterococci) - Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).

g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

b. Grab sample - an individual sample collected in less than 15 minutes.

4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.

5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.

6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge which is described by this permit whether or not a discharge is made for that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act (CWA); TWC §§ 26, 27, and 28; and THSC § 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.

b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period

of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.

c. Records of monitoring activities shall include the following:

i. date, time and place of sample or measurement;

ii. identity of individual who collected the sample or made the measurement.

iii. date and time of analysis;

iv. identity of the individual and laboratory who performed the analysis;

v. the technique or method of analysis; and

vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Enforcement Division (MC 224).

7. Noncompliance Notification

a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Except as allowed by 30 TAC § 305.132, report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective September 1, 2020, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

   i. Unauthorized discharges as defined in Permit Condition 2(g).

   ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.

   iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.

c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.

d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

   All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

   a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that

discharge will exceed the highest of the following "notification levels":

i. One hundred micrograms per liter (100 µg/L);

ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or

iv. The level established by the TCEQ.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i. Five hundred micrograms per liter (500 µg/L);

ii. One milligram per liter (1 mg/L) for antimony;

iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or

iv. The level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

11. All POTWs must provide adequate notice to the Executive Director of the following:

a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;

b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and

c. For the purpose of this paragraph, adequate notice shall include information on:

i. The quality and quantity of effluent introduced into the POTW; and

ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the

Executive Director, it shall promptly submit such facts or information.

b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:

   i. Violation of any terms or conditions of this permit;

   ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

   iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.

b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.

e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of

wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.

h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.

i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

3. Inspections and Entry

a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.

b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment and/or Renewal

a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:

i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534

(relating to New Sources and New Dischargers); or

ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9;

iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.

c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.

d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.

e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.

f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications

Review and Processing Team (MC 148) of the Water Quality Division.

b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to TWC Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy

a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:

i. the permittee;

ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or

iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.

b. This notification must indicate:

i. the name of the permittee and the permit number(s);

ii. the bankruptcy court in which the petition for bankruptcy was filed; and

iii. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.

2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:

   a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.

   b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.

4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.

5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC § 7.302(b)(6).

7. Documentation

   For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not

confidential in 30 TAC §§ 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words confidential business information on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

   a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

      If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 169) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

   b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.

   c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and

related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.

10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.

11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:

    a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.

    b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

    c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Environmental Cleanup Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.

    d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Registration, Review, and Reporting Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.

    e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.

    f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC § 335 and must include the following, as it pertains to wastewater treatment and discharge:

        i. Volume of waste and date(s) generated from treatment process;
        ii. Volume of waste disposed of on-site or shipped off-site;

iii. Date(s) of disposal;
iv. Identity of hauler or transporter;
v. Location of disposal site; and
vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC § 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC § 361.

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SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge . **The disposal of sludge by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of Class A or Class AB Sewage Sludge. This provision does not authorize the permittee to land apply sludge on property owned, leased or under the direct control of the permittee.**

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE LAND APPLICATION

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.

2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.

3. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

B. Testing Requirements

1. Sewage sludge shall be tested once during the term of this permit in the Interim phase and annually in the Interim II and Final phases in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division and the Regional Director (MC Region 4) within seven (7) days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Registration, Review, and Reporting Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 4) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

2. Sewage sludge shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section I.C.

TABLE 1

Pollutant	Ceiling Concentration (Milligrams per kilogram)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B pathogen requirements.

a. For sewage sludge to be classified as Class A with respect to pathogens, the density of fecal coliform in the sewage sludge be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met.

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC § 312.82(a)(2)(A) for specific information.

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

Alternative 6 (PFRP Equivalent) - Sewage sludge that is used or disposed of must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

b. For sewage sludge to be classified as Class AB with respect to pathogens, the density of fecal coliform in the sewage sludge be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met.

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%.

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information.

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

c. Sewage sludge that meets the requirements of Class AB sewage sludge may be classified a Class A sewage sludge if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.

d. Three alternatives are available to demonstrate compliance with Class B criteria for

sewage sludge.

Alternative 1

i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.

ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;

iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and

v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

Alternative 3 - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a

single location, except as provided in paragraph v. below;

ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;

iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and

v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition, the following site restrictions must be met if Class B sludge is land applied:

i. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.

ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for 4 months or longer prior to incorporation into the soil.

iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than 4 months prior to incorporation into the soil.

iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.

v. Animals shall not be allowed to graze on the land for 30 days after application of sewage sludge.

vi. Turf grown on land where sewage sludge is applied shall not be harvested for 1 year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn.

vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of sewage sludge.
viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

ix. Land application of sludge shall be in accordance with the buffer zone requirements found in 30 TAC § 312.44.

4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been

treated in either an aerobic or anaerobic treatment process.

Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 -

i. Sewage sludge shall be injected below the surface of the land.

ii. No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.

iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10-

i. Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

ii. When sewage sludge that is incorporated into the soil is Class A or Class AB with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test	- once during the term of this permit in the Interim phase and annually in the Interim II and Final phases
PCBs	- once during the term of this permit in the Interim phase and annually in the Interim II and Final phases

All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

Amount of sewage sludge (*) metric tons per 365-day period	Monitoring Frequency
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter
1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

(*) *The amount of bulk sewage sludge applied to the land (dry wt. basis).*

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (e.g., sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE FOR APPLICATION TO THE LAND MEETING CLASS A, CLASS AB or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A, Class AB or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

A. Pollutant Limits

Table 2

Pollutant	Cumulative Pollutant Loading Rate (pounds per acre)*
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

Pollutant	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report Only
Nickel	420
Selenium	36
Zinc	2800

*Dry weight basis

B. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B pathogen reduction requirements as defined above in Section I.B.3.

C. Management Practices

1. Bulk sewage sludge shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.

2. Bulk sewage sludge not meeting Class A requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.

3. Bulk sewage sludge shall be applied at or below the agronomic rate of the cover crop.

4. An information sheet shall be provided to the person who receives bulk sewage sludge sold or given away. The information sheet shall contain the following information:

   a. The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.

   b. A statement that application of the sewage sludge to the land is prohibited except in accordance with the instruction on the label or information sheet.

   c. The annual whole sludge application rate for the sewage sludge application rate for the sewage sludge that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

1. If bulk sewage sludge is applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk sewage sludge is proposed to be applied. The notice shall include:

   a. The location, by street address, and specific latitude and longitude, of each land application site.

   b. The approximate time period bulk sewage sludge will be applied to the site.

   c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk sewage sludge.

2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

E. Record keeping Requirements

The sludge documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at

the facility site and/or shall be readily available for review by a TCEQ representative for a period of five years. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.

2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B sludge, if applicable).

3. A description of how the vector attraction reduction requirements are met.

4. A description of how the management practices listed above in Section II.C are being met.

5. The following certification statement:

   "I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 312.83(b) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:

   a. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.

   b. The location, by street address, and specific latitude and longitude, of each site on which sludge is applied.

   c. The number of acres in each site on which bulk sludge is applied.

   d. The date and time sludge is applied to each site.

e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.

f. The total amount of sludge applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 4) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year the following information. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (e.g., sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

3. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.

4. The frequency of monitoring listed in Section I.C. that applies to the permittee.

5. Toxicity Characteristic Leaching Procedure (TCLP) results.

6. PCB concentration in sludge in mg/kg.

7. Identity of hauler(s) and TCEQ transporter number.

8. Date(s) of transport.

9. Texas Commission on Environmental Quality registration number, if applicable.

10. Amount of sludge disposal dry weight (lbs/acre) at each disposal site.

11. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.

12. Level of pathogen reduction achieved (Class A, Class AB or Class B).

13. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B sludge, include information on how site restrictions were met.

14. Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

15. Vector attraction reduction alternative used as listed in Section I.B.4.

16. Amount of sludge transported in dry tons/year.

17. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge treatment activities, shall be attached to the annual reporting form.

18. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.

    a. The location, by street address, and specific latitude and longitude.

    b. The number of acres in each site on which bulk sewage sludge is applied.

    c. The date and time bulk sewage sludge is applied to each site.

    d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk sewage sludge applied to each site.

    e. The amount of sewage sludge (i.e., dry tons) applied to each site.

The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

A. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC § 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.

B. If the permittee generates sewage sludge and supplies that sewage sludge to the owner or operator of a municipal solid waste landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.

C. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

D. Sewage sludge shall be tested once during the term of this permit in the Interim phase and annually in the Interim II and Final phases in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 261.24. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

   Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division and the Regional Director (MC Region 4) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

   The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Registration, Review, and Reporting Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 4) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year.

E. Sewage sludge shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.

F. Record keeping Requirements

   The permittee shall develop the following information and shall retain the information for five years.

1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.

2. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

G. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 4) and Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year the following information. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (e.g., sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. Toxicity Characteristic Leaching Procedure (TCLP) results.

3. Annual sludge production in dry tons/year.

4. Amount of sludge disposed in a municipal solid waste landfill in dry tons/year.

5. Amount of sludge transported interstate in dry tons/year.

6. A certification that the sewage sludge meets the requirements of 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.

7. Identity of hauler(s) and transporter registration number.

8. Owner of disposal site(s).

9. Location of disposal site(s).

10. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION IV. REQUIREMENTS APPLYING TO SLUDGE TRANSPORTED TO ANOTHER FACILITY FOR FURTHER PROCESSING

These provisions apply to sludge that is transported to another wastewater treatment facility or facility that further processes sludge. These provisions are intended to allow transport of sludge to facilities that have been authorized to accept sludge. These provisions do not limit the ability of the receiving facility to determine whether to accept the sludge, nor do they limit the ability of the receiving facility to request additional testing or documentation.

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.

2. Sludge may only be transported using a registered transporter or using an approved pipeline.

B. Record Keeping Requirements

1. For sludge transported by an approved pipeline, the permittee must maintain records of the following:

   a. the amount of sludge transported;

   b. the date of transport;

   c. the name and TCEQ permit number of the receiving facility or facilities;

   d. the location of the receiving facility or facilities;

   e. the name and TCEQ permit number of the facility that generated the waste; and

   f. copy of the written agreement between the permittee and the receiving facility to accept sludge.

2. For sludge transported by a registered transporter, the permittee must maintain records of the completed trip tickets in accordance with 30 TAC § 312.145(a)(1)-(7) and amount of sludge transported.

3. The above records shall be maintained on-site on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for at least five years.

C. Reporting Requirements

The permittee shall report the following information annually to the TCEQ Regional Office (MC Region 4) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (e.g., sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
2. the annual sludge production;
3. the amount of sludge transported;
4. the owner of each receiving facility;
5. the location of each receiving facility; and
6. the date(s) of disposal at each receiving facility.

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OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

   This Category C in the Interim I phase, Category B in the Interim II phase, and Category A in the Final phase must be operated by a chief operator or an operator holding a Category C license or higher in the Interim I phase, Category B license or higher in the Interim II phase, and Category A license or higher in the Final phase. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift that does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

2. The facility is not located in the Coastal Management Program boundary.

3. Chronic toxic criteria apply at the edge of the mixing zone. The mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge.

4. The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).

5. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.

6. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, 1/month may be reduced to 1/quarter in the Interim I phase, 1/week may be reduced to 2/month in the Interim II phase, and 5/week may be reduced to 3/week in the Final phase. **A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148).** The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.

7. Prior to construction of the treatment facility, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary transmittal letter in accordance with the requirements in 30 TAC § 217.6(d). If requested by the Wastewater Permitting Section, the permittee shall submit plans and specifications and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the permitted effluent limitations required on Pages 2, 2a, and 2b of this

permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

8. Reporting requirements according to 30 TAC §§ 319.1-319.11 and any additional effluent reporting requirements contained in this permit are suspended from the effective date of the permit until plant startup or discharge from the facility described by this permit, whichever occurs first. The permittee shall provide written notice to the TCEQ Regional Office (MC Region 4) and the Applications Review and Processing Team (MC 148) of the Water Quality Division at least forty-five (45) days prior to plant startup or anticipated discharge, whichever occurs first, and prior to completion of each additional phase on Notification of Completion Form 20007.

9. Within 120 days from the start-up of the Interim II phase, the permittee shall complete Attachment A with the analytical results for Outfall 001. The completed tables with the results of these analysis and laboratory reports shall be submitted to the Municipal Permits Team, Wastewater Permitting Section MC 148, TCEQ Water Quality Division. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and/or monitoring requirements. Test methods utilized to complete the tables shall be according to the test procedures specified in the Definitions and Standard Permit Conditions section of this permit and sensitive enough to detect the parameters listed in Attachment A at the minimum analytical level (MAL).

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The following pollutants may not be introduced into the treatment facility:

   a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, waste streams with a closed-cup flash point of less than 140° Fahrenheit (60° Celsius) using the test methods specified in 40 CFR § 261.21;

   b. Pollutants which will cause corrosive structural damage to the POTW, but in no case shall there be discharges with a pH lower than 5.0 standard units, unless the works are specifically designed to accommodate such discharges;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;

   d. Any pollutant, including oxygen-demanding pollutants (e.g., biological oxygen demand), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;

   e. Heat in amounts which will inhibit biological activity in the POTW, resulting in Interference, but in no case shall there be heat in such quantities that the temperature at the POTW treatment plant exceeds 104° Fahrenheit (40° Celsius) unless the Executive Director, upon request of the POTW, approves alternate temperature limits;

   f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

   g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

   h. Any trucked or hauled pollutants except at discharge points designated by the POTW.

2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under 40 CFR Part 403 [*rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798*].

3. The permittee shall provide adequate notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days subsequent to the permittee's knowledge of either of the following:

   a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and

   b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

      Any notice shall include information on the quality and quantity of effluent to be introduced into the treatment works and any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

BIOMONITORING REQUIREMENTS

CHRONIC BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency, and Methodology

   a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival, reproduction, or growth of the test organisms.

   b. Within 90 days of initial discharge of the 5 MGD facility, the permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this part of this permit and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," fourth edition (EPA-821-R-02-013) or its most recent update:

      1) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*) (Method 1002.0). This test should be terminated when 60% of the surviving adults in the control produce three broods or at the end of eight days, whichever occurs first. This test shall be conducted once per quarter.

      2) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*) (Method 1000.0). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

   The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

   c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 32%, 42%, 56%, 75%, and 100% effluent. The critical dilution, defined as 100% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.

   d. This permit may be amended to require a WET limit, a chemical-specific effluent limit, a best management practice, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

   e. Testing Frequency Reduction

      1) If none of the first four consecutive quarterly tests demonstrates

significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.

2) If one or more of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until this permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant toxicity, the permittee shall resume a quarterly testing frequency for that species until this permit is reissued.

2. Required Toxicity Testing Conditions

a. Test Acceptance - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fail to meet the following criteria:

1) a control mean survival of 80% or greater;

2) a control mean number of water flea neonates per surviving adult of 15 or greater;

3) a control mean dry weight of surviving fathead minnow larvae of 0.25 mg or greater;

4) a control coefficient of variation percent (CV%) of 40 or less in between replicates for the young of surviving females in the water flea test; and the growth and survival endpoints in the fathead minnow test;

5) a critical dilution CV% of 40 or less for the young of surviving females in the water flea test; and the growth and survival endpoints for the fathead minnow test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test;

6) a percent minimum significant difference of 47 or less for water flea reproduction; and

7) a percent minimum significant difference of 30 or less for fathead minnow growth.

b. Statistical Interpretation

1) For the water flea survival test, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be the Fisher's exact test as described in the manual referenced in in Part 1.b.

2) For the water flea reproduction test and the fathead minnow larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent

dilution shall be in accordance with the manual referenced in Part 1.b..

3) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.

4) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.

5) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution when compared to the survival, reproduction, or growth of the test organism in the control (0% effluent).

6) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 3.

7) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Item 3 will be used when making a determination of test acceptability.

8) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

1) Dilution water used in the toxicity tests must be the receiving water collected at a point upstream of the discharge point as close as possible to the discharge point but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:

a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or

b) use the closest downstream perennial water unaffected by the discharge.

2) Where the receiving water proves unsatisfactory as a result of pre-existing instream toxicity (i.e. fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;

b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days); and

c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.

3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.

d. Samples and Composites

1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.

2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the

effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

5) The effluent samples shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.

1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.

2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TLP3B, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For the water flea, Parameter TOP3B, report the NOEC for survival.

3) For the water flea, Parameter TXP3B, report the LOEC for survival.

4) For the water flea, Parameter TWP3B, enter a "1" if the NOEC for reproduction is less than the critical dilution; otherwise, enter a "0."

5) For the water flea, Parameter TPP3B, report the NOEC for reproduction.

6) For the water flea, Parameter TYP3B, report the LOEC for reproduction.

7) For the fathead minnow, Parameter TLP6C, enter a "1" if the NOEC for

survival is less than the critical dilution; otherwise, enter a "0."

8) For the fathead minnow, Parameter TOP6C, report the NOEC for survival.

9) For the fathead minnow, Parameter TXP6C, report the LOEC for survival.

10) For the fathead minnow, Parameter TWP6C, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."

11) For the fathead minnow, Parameter TPP6C, report the NOEC for growth.

12) For the fathead minnow, Parameter TYP6C, report the LOEC for growth.

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

4. Persistent Toxicity

The requirements of this Part apply only when a test demonstrates a significant effect at the critical dilution. Significant lethality and significant effect were defined in Part 2.b. Significant sublethality is defined as a statistically significant difference in growth/reproduction at the critical dilution when compared to the growth/reproduction in the control.

a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.

b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE action plan and schedule defined in Part 5.

If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.

c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.

d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.

e. Regardless of whether retesting for lethal or sublethal effects, or a combination of the two, no more than one retest per month is required for a species.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a

specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation which identifies the pollutant(s) and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism.

h. Based on the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.

i. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 1 (SHEET 1 OF 4)

BIOMONITORING REPORTING

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Dates and Times Composites Collected

Date Time Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

REP	Percent effluent					
	0%	32%	42%	56%	75%	100%
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
Survival Mean						
Total Mean						
CV%*						
PMSD						

*Coefficient of Variation = standard deviation x 100/mean (calculation based on young of the surviving adults)
Designate males (M), and dead females (D), along with number of neonates (x) released prior to death.

TABLE 1 (SHEET 2 OF 4)

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean number of young produced per adult significantly less than the number of young per adult in the control for the % effluent corresponding to significant nonlethal effects?

   CRITICAL DILUTION (100%): _____ YES _____ NO

PERCENT SURVIVAL

	Percent effluent					
Time of Reading	0%	32%	42%	56%	75%	100%
24h						
48h						
End of Test						

2. Fisher's Exact Test:

   Is the mean survival at test end significantly less than the control survival for the % effluent corresponding to lethality?

   CRITICAL DILUTION (100%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC\LOEC below:

   a.) NOEC survival = _____% effluent

   b.) LOEC survival = _____% effluent

   c.) NOEC reproduction = _____% effluent

   d.) LOEC reproduction = _____% effluent

TABLE 1 (SHEET 3 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL

Dates and Times Composites Collected

Date Time Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

FATHEAD MINNOW GROWTH DATA

Effluent Concentration	Average Dry Weight in replicate chambers					Mean Dry Weight	CV%*
	A	B	C	D	E		
0%							
32%							
42%							
56%							
75%							
100%							
PMSD							

* Coefficient of Variation = standard deviation x 100/mean

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean dry weight (growth) at 7 days significantly less than the control's dry weight (growth) for the % effluent corresponding to significant nonlethal effects?

   CRITICAL DILUTION (100%): _____ YES _____ NO

TABLE 1 (SHEET 4 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW GROWTH AND SURVIVAL TEST

FATHEAD MINNOW SURVIVAL DATA

Effluent Concentration	Percent Survival in replicate chambers					Mean percent survival			CV%*
	A	B	C	D	E	24h	48h	7 day	
0%									
32%									
42%									
56%									
75%									
100%									

* Coefficient of Variation = standard deviation x 100/mean

2. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean survival at 7 days significantly less than the control survival for the % effluent corresponding to lethality?

   CRITICAL DILUTION (100%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC\LOEC below:

   a.) NOEC survival = _____% effluent

   b.) LOEC survival = _____% effluent

   c.) NOEC growth = _____% effluent

   d.) LOEC growth = _____% effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency, and Methodology

a. The permittee shall test the effluent for lethality in accordance with the provisions in this section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.

b. Within 90 days of initial discharge of the 5 MGD facility, the toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:

1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

A valid test result must be submitted for each reporting period. The permittee must report, and then repeat, an invalid test during the same reporting period. The repeat test shall include the control and the 100% effluent dilution and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. Except as discussed in item 2.b., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

d. This permit may be amended to require a WET limit, a Best Management Practice (BMP), Chemical-Specific (CS) limits, or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation after multiple toxic events.

e. As the dilution series specified in the Chronic Biomonitoring Requirements includes a 100% effluent concentration, the results from those tests may fulfill the requirements of this Section; any tests performed in the proper time interval may be substituted. Compliance will be evaluated as specified in item a. The 50% survival in 100% effluent for a 24-hour period standard applies to all tests utilizing a 100% effluent dilution, regardless of whether the results are submitted

to comply with the minimum testing frequency defined in item b.

2. Required Toxicity Testing Conditions

a. Test Acceptance - The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.

b. Dilution Water - In accordance with item 1.c., the control and dilution water shall normally consist of standard, synthetic, moderately hard, reconstituted water. If the permittee utilizes the results of a chronic test to satisfy the requirements in item 1.e., the permittee may use the receiving water or dilution water that meets the requirements of item 2.a as the control and dilution water.

c. Samples and Composites

1) The permittee shall collect one composite sample from Outfall 001.

2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.

5) The effluent sample shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.

1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, and October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

4. Persistent Mortality

The requirements of this part apply when a toxicity test demonstrates significant lethality, which is defined as a mean mortality of 50% or greater of organisms exposed to the 100% effluent concentration for 24 hours.

a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.

b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, the permittee

shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the

progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism. A copy of the TRE final report shall also be submitted to the U.S. EPA Region 6 office.

h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

The permittee may be exempted from complying with 30 TAC § 307.6(e)(2)(B) upon proving that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g., metals) form a salt compound. Following the exemption, this permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.

j. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

TABLE 2 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

DOMESTIC WORKSHEET 4.0

POLLUTANT ANALYSES REQUIREMENTS*

The following is required for facilities with a permitted or proposed flow of 1.0 MGD or greater, or facilities with an approved pretreatment program. See instructions for further details.

Worksheet not required for minor amendments without renewal

Section 1. Toxic Pollutants

For pollutants identified in Table 4.0(1), indicate type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected:

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile				50
Aldrin				0.01
Aluminum				2.5
Anthracene				10
Antimony				5
Arsenic				0.5
Barium				3
Benzene				10
Benzidine				50
Benzo(a)anthracene				5
Benzo(a)pyrene				5
Bis(2-chloroethyl)ether				10
Bis(2-ethylhexyl)phthalate				10
Bromodichloromethane				10
Bromoform				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Cadmium				1
Carbon Tetrachloride				2
Carbaryl				5
Chlordane*				0.2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroform				10
Chlorpyrifos				0.05
Chromium (Total)				3
Chromium (Tri) **(*1)**				N/A
Chromium (Hex)				3
Copper				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10
Cyanide **(*2)**				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
Dichloromethane				20
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10
Diuron				0.09
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene				10
Fluoride				500
Guthion				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclohexane (alpha)				0.05

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Hexachlorocyclohexane (beta)				0.05
gamma-Hexachlorocyclohexane (Lindane)				0.05
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Hexachlorophene				10
Lead				0.5
Malathion				0.1
Mercury				0.005
Methoxychlor				2
Methyl Ethyl Ketone				50
Mirex				0.02
Nickel				2
Nitrate-Nitrogen				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10
Polychlorinated Biphenyls (PCB's) **(*3)**				0.2
Pyridine				20
Selenium				5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Thallium				0.5
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10
Vinyl Chloride				10
Zinc				5

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected:

Table 4.0(2)A – Metals, Cyanide, Phenols

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony				5
Arsenic				0.5
Beryllium				0.5
Cadmium				1
Chromium (Total)				3
Chromium (Hex)				3
Chromium (Tri) (*1)				N/A
Copper				2
Lead				0.5
Mercury				0.005
Nickel				2
Selenium				5
Silver				0.5
Thallium				0.5
Zinc				5
Cyanide (*2)				10
Phenols, Total				10

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable

Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrolein				50
Acrylonitrile				50
Benzene				10
Bromoform				10
Carbon Tetrachloride				2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroethane				50
2-Chloroethylvinyl Ether				10
Chloroform				10
Dichlorobromomethane				10
1,1-Dichloroethane				10
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
1,2-Dichloropropane				10
1,3-Dichloropropylene [1,3-Dichloropropene]				10
1,2-Trans-Dichloroethylene				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Toluene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				10

Table 4.0(2)C – Acid Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
2-Chlorophenol				10
2,4-Dichlorophenol				10
2,4-Dimethylphenol				10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol				50
2-Nitrophenol				20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				10

Table 4.0(2)D – Base/Neutral Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acenaphthene				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)Anthracene				5
Benzo(a)Pyrene				5
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene				20
Benzo(k)Fluoranthene				5
Bis(2-Chloroethoxy)Methane				10
Bis(2-Chloroethyl)Ether				10
Bis(2-Chloroisopropyl)Ether				10
Bis(2-Ethylhexyl)Phthalate				10
4-Bromophenyl Phenyl Ether				10
Butyl benzyl Phthalate				10
2-Chloronaphthalene				10
4-Chlorophenyl phenyl ether				10
Chrysene				5
Dibenzo(a,h)Anthracene				5
1,2-(o)Dichlorobenzene				10
1,3-(m)Dichlorobenzene				10
1,4-(p)Dichlorobenzene				10
3,3-Dichlorobenzidine				5
Diethyl Phthalate				10
Dimethyl Phthalate				10
Di-n-Butyl Phthalate				10
2,4-Dinitrotoluene				10
2,6-Dinitrotoluene				10
Di-n-Octyl Phthalate				10
1,2-Diphenylhydrazine (as Azo-benzene)				20
Fluoranthene				10
Fluorene				10
Hexachlorobenzene				5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Hexachlorobutadiene				10
Hexachlorocyclo-pentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-Propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Aldrin				0.01
alpha-BHC (Hexachlorocyclohexane)				0.05
beta-BHC (Hexachlorocyclohexane)				0.05
gamma-BHC (Hexachlorocyclohexane)				0.05
delta-BHC (Hexachlorocyclohexane)				0.05
Chlordane				0.2
4,4-DDT				0.02
4,4-DDE				0.1
4,4,-DDD				0.1
Dieldrin				0.02
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Endrin Aldehyde				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
PCB-1242				0.2
PCB-1254				0.2
PCB-1221				0.2
PCB-1232				0.2
PCB-1248				0.2
PCB-1260				0.2
PCB-1016				0.2
Toxaphene				0.3

Section 3. Dioxin/Furan Compounds

A. Are any of the following compounds used by a contributing industrial user or significant industrial user that is part of the collection system for the facility that you have reason to believe are present in the influent to the WWTP?

Yes ☐ No ☐

If **yes**, identify which compound(s) are potentially sent to the facility.

☐ 2,4,5-trichlorophenoxy acetic acid
Common Name 2,4,5-T, CASRN 93-76-5

☐ 2-(2,4,5-trichlorophenoxy) propanoic acid
Common Name Silvex or 2,4,5-TP, CASRN 93-72-1

☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate
Common Name Erbon, CASRN 136-25-4

☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate
Common Name Ronnel, CASRN 299-84-3

☐ 2,4,5-trichlorophenol
Common Name TCP, CASRN 95-95-4

☐ hexachlorophene
Common Name HCP, CASRN 70-30-4

For each compound identified, provide a brief description of the conditions of its/their presence at the facility.

B. Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?

Yes ☐ No ☐

If **yes**, provide a brief description of the conditions for its presence.

If you responded **yes** to either Subsection A **or** B, complete Table 4.0(2)F.

For pollutants identified in Table 4.0(2)F, indicate type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected:

TABLE 4.0(2)F - DIOXIN/FURAN COMPOUNDS

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

Exhibit D

UPPER TRINITY
REGIONAL WATER DISTRICT

RESOLUTION

RESOLUTION # 2017- 17

A RESOLUTION OF THE BOARD OF DIRECTORS OF UPPER TRINITY REGIONAL WATER DISTRICT AUTHORIZING THE FILING AND PROSECUTION OF AN APPLICATION TO AMEND WATER USE PERMIT 5778 WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.

WHEREAS, the District holds Water Use Permit No. 5778 (the "Permit"), which includes, among other things, the authorization to reuse the lesser of (1) not to exceed 9,664 acre-feet of Chapman Lake-derived return flows per year, or (2) an amount of Chapman Lake-derived return flows actually discharged less conveyance losses; and

WHEREAS, return flows derived from Chapman Lake discharged from wastewater treatment plants of the District and its Members and Customers pass through Lewisville Lake before diversion and use by the District; and

WHEREAS, the wastewater treatment plants (the "WWTPs") that are identified in the Permit discharge return flows into or upstream of Lewisville Lake; and

WHEREAS, the Permit specifies the discharge points and rates of the associated return flows; and

WHEREAS, a Member or Customer of the District that receives water that originated in Chapman Lake has recently received a permit for a new WWTP that will discharge its return flows into or upstream of Lewisville Lake; and

WHEREAS, the Board of Directors of the District deems it to be appropriate and in the best interest of the District to add this additional discharge point to those points now specified in the Permit; and

WHEREAS, Chapter 11 of the Texas Water Code (the "TWC") requires authorization from the Texas Commission on Environmental Quality (the "Commission") to add such points of discharge to the Permit; and

WHEREAS, to comply with the requirements of the TWC, the District must file and prosecute an application to amend the Permit (the "Application") with the Commission, which Application must include proof of authorization to execute said Application on behalf of the District; and

WHEREAS, the District now desires to file an Application, and authorize its Executive Director, on behalf of the District, to prepare and execute such Application to amend the Permit to add additional discharge points; and

WHEREAS, the Executive Director recommends that said application be filed with the Commission with due diligence.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE UPPER TRINITY REGIONAL WATER DISTRICT:

SECTION 1. That the Board of Directors does hereby authorize the filing and prosecution of an application with the Commission to amend Water Use Permit 5778.

SECTION 2. That the Executive Director is hereby directed to file said Application on behalf of the District, to appear and arrange for the appearance of persons representing the District at any proceedings on said Application before the Commission, and to direct the prosecution, compromise and settlement on behalf of the District.

SECTION 3. That this Resolution shall become effective immediately upon its passage.

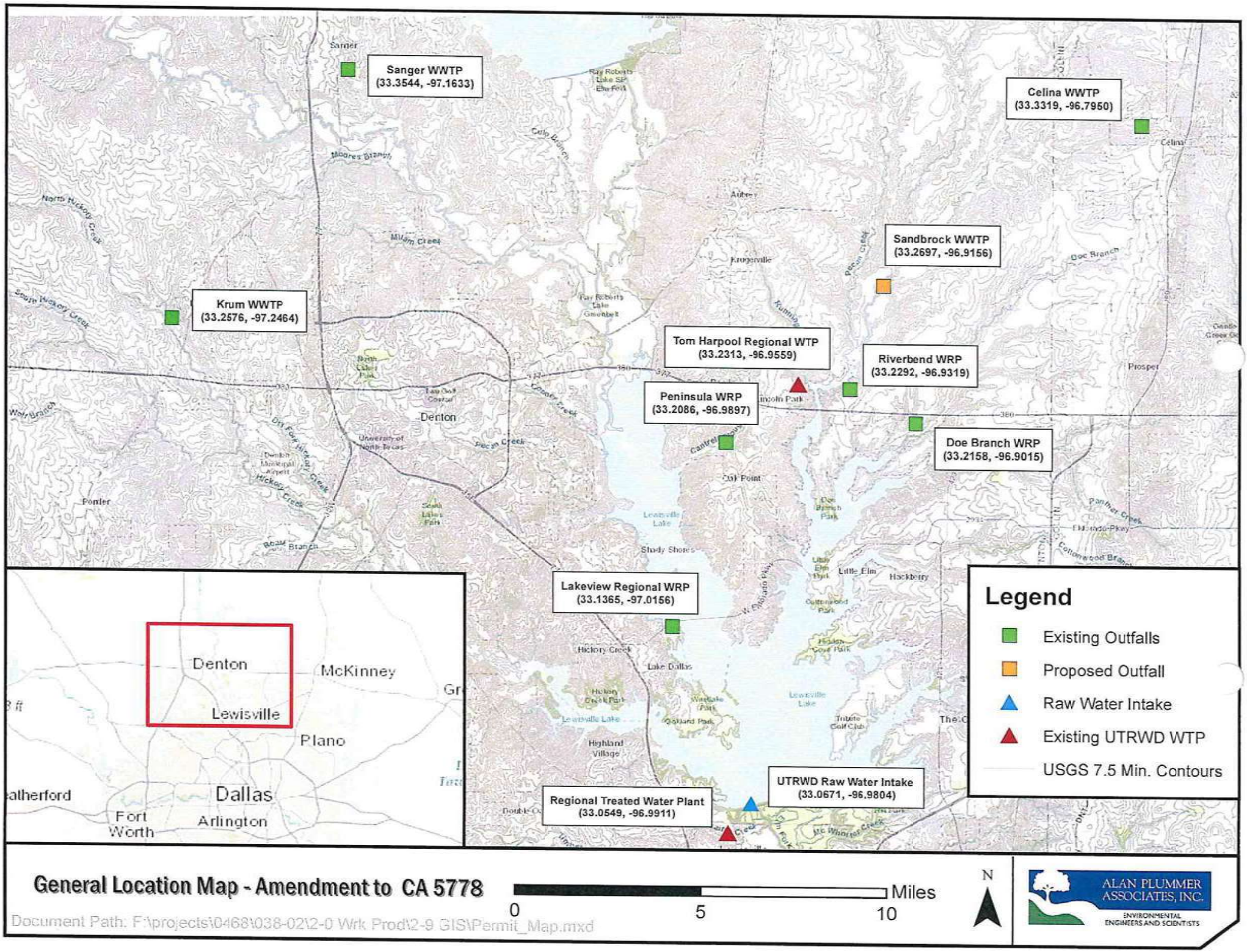
DULY PASSED AND APPROVED THIS 3RD DAY OF AUGUST 2017.

Recommended: _____
Thomas E. Taylor, Executive Director

Executed: _____
Kevin Mercer, President

Attest: _____
Mike Fairfield, Secretary

Exhibit E



General Location Map - Amendment to CA 5778

Document Path: F:\projects\0468\038-02\2-0 Wrk Prod\2-9 GIS\Permit_Map.mxd

ALAN PLUMMER ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERS AND SCIENTISTS

Exhibit F

View of receiving stream from outfall location facing downstream (southwest)

View of receiving stream from outfall location facing upstream (north)

Exhibit G


Permit 577%


Permit 5778

UPPER TRINITY REGIONAL WATER DISTRICT

REUSE OF CHAPMAN LAKE WATER

ACCOUNTING PLAN DETAILED DOCUMENTATION

Last Revised: August 30, 2017

Introduction

The purpose of this document is to provide a detailed explanation of each calculation contained in the Chapman Water Accounting Plan. This plan is to be used as described in the document "Agreement between City of Dallas and Upper Trinity Regional Water District Regarding Use of Lewisville Lake for Pass Through of Chapman Lake Water", hereafter referred to as the "reuse agreement".

The primary objective of the accounting plan is to track the District's portion of Chapman Lake water, beginning at its point of delivery to the Trinity River Basin, through the District's water treatment facilities, customers, wastewater treatment facilities and subsequently to Lewisville Lake where it is then available for reuse. The tables within the accounting plan are organized such that all input is entered into Tables I-1 through I-3. Calculations are then performed within Tables C-1 through C-6. A summary of measured and calculated values to be provided to Dallas and Denton each month is provided in Table S-1 and an annual summary is provided in Table S-2. Each accounting table is described in detail in the following sections.

Input Tables

These tables include fields for entering all measured or reported data required for model calculations. In each table all blue shaded cells require input of a number from an outside source.

Table I-1

This spreadsheet contains all input data requiring monthly updates within the accounting model. All numbers that are input are contained in the blue shaded cells of the spreadsheet. Each input field is defined below:

FIELD	DESCRIPTION
WTP/CONVEYANCE/CHANNEL LOSS DATA	
Month/year	Calendar month and year represented by data.
Lewisville Lake Water Surface Elevation, ft:	Water surface elevation of Lewisville Lake at beginning of month, obtained from USACOE.
Assumed WTP and Raw Water	Losses between RWTP intake and RWTP

FIELD	DESCRIPTION
Conveyance Losses, Regional WTP (L_RWTP):	discharge (expressed as a percentage of intake flow). Based on audit of actual metered data, as described in section 3.4(d) of reuse agreement.
Assumed WTP and Raw Water Conveyance Losses, Harpool WTP (L_HWTP):	Losses between HWTP intake and HWTP discharge (expressed as a percentage of intake flow). Based on audit of actual metered data, as described in section 3.4(d) of reuse agreement.
Assumed Doe Branch Losses, %/mile	Channel loss rate within Doe Branch. Value is determined based on sections 3.4(b) and 3.4(c) of the reuse agreement.
Assumed Channel Conveyance Losses, %/mile	Channel conveyance loss rate between the point of discharge of a WWTP and the water surface of Lewisville Lake. Value is determined based on section 4.2(c) 5. of the reuse agreement.
Assumed Consumption Losses Between WTP and Customers (L_CONS_a):	Losses between WTP discharge and Chapman Lake water customer meters (expressed as a percentage of WTP discharge flow). Based on audit of metered WTP and customer data.
Doe Branch Channel Length, miles	Length of Doe Branch between point of Chapman water discharge and Lewisville Lake. Updated as Lewisville Lake water surface elevation changes, using automatic lookup to Doe Branch Stream Distance Table (attached). Data in this table will be augmented by surveying or other appropriate data collection methods when water level falls below 515 ft.
Doe Branch Losses (L_Doe)	Computed Doe Branch losses, expressed as percentage of Chapman water entering Doe Branch. Computed as *Assumed Doe Branch Losses, %/mile* x *Doe Branch Channel Length, miles.*
RETURN FLOW FACTORS	
Lakeview Regional WWTP, Riverbend Regional WWTP, etc.	Return flow factor, as defined in definition (y) of reuse agreement. This factor will be based on an audit of actual metered data, as described in section 4.2(c) of the reuse agreement. Each WWTP will have a separate return flow factor. Only those WWTPs returning Chapman Lake water to Lake Lewisville for subsequent reuse will be assigned a non-zero return flow factor. All other WWTPs will be assigned a return flow factor of zero.

Table I-2

This spreadsheet contains all daily input associated with raw and treated water quantities. All numbers in blue shaded cells will be input into the model. Each column is described in detail below.

FIELD	DESCRIPTION
Total Amount of Water from Chapman Lake	Total amount of Chapman Lake Water delivered from Chapman Lake by pipeline to the Trinity River basin. Includes water for customers other than the District (e.g. Irving). Will be obtained from a meter located at the pipeline discharge (section 5.3 (a) of reuse agreement).
CLW (District's portion)	District's portion of Chapman Lake Water at the pipeline discharge point. To be provided to District by City of Irving.
CLW Diverted Directly to Harpool WTP	Amount of Chapman Lake water diverted directly to the Harpool WTP. Metered value.
District's CLW Discharged into Doe Branch	District's portion of Chapman Lake water discharged directly into Doe Branch. Calculated by subtracting the Chapman Lake water diverted to Harpool WTP from the total District portion of Chapman Lake water at the pipeline discharge point (section 5.3 (b) of reuse agreement).
Total Raw Water to RWTP	Total amount of raw water diverted from Lewisville Lake to RWTP. Metered value.
CLW Withdrawn from LL by Non-UTRWD Entities	Amount of Chapman Lake water diverted from Lewisville Lake by District raw water customers
Amount of Water Purchased by District from Dallas	Amount of water purchased by the District from Dallas (section 5.3 (j) 1. of reuse agreement)
Amount of Water Purchased by District from Denton	Amount of water purchased by the District from Denton (section 5.3 (j) 2. of reuse agreement)
Delivered District Water to Customers (multiple columns)	Total amount of treated water delivered to each District water customer.

Table I-3

This spreadsheet contains all daily input of measured discharges and any direct or indirect reuse losses from all District or customer wastewater treatment plants (WWTPs) participating in the Chapman Reuse program. Average daily discharge, from each WWTP, obtained from metered values, will be entered in the appropriate cells on this table. Discharge data is only required for those WWTPs that contribute return flows subsequently used by the District as part of the program.

Calculation Tables

The calculation tables contain all computations within the accounting plan. As described below, Table C-1 includes calculations to determine the percentage of Chapman Lake water to be allocated to each customer. Table C-2 contains all Chapman Lake water calculations associated with each individual customer of a regional WWTP. Table C-3 provides a sum of values for all customers of a regional WWTP. Tables C-4 and C-5 are identical to Tables C-2 and C-3, except that they are representative of individual customers, each with its own WWTP. Table C-5 provides a sum of values for all individual WWTP customers. Table C-6 sums all values for all contributing WWTPs (both regional and individual) to account for the total amount of Chapman Lake water on a daily basis.

In each of the calculation tables, column numbers are shown above each column. These numbers are referenced in the row under the column headings to help clarify the calculation that is performed in each column. Shaded columns represent columns that are taken directly from the input tables. Each calculation table is described in detail below.

Table C-1

This table includes calculations to determine the percentage of Chapman Lake water contained in the total amount of treated water delivered to each Chapman Lake water customer. Each column is described in detail below.

FIELD	COLUMN #	DESCRIPTION
CLW	C1-1	District's portion of Chapman Lake Water (from Table I-2, Column 2)
CLW Diverted Directly to Harpool WTP	C1-2	Amount of Chapman Lake water diverted directly to the future Harpool WTP (from Table I-2, Column 3)
Assumed WTP and Raw Water Conveyance Losses, Harpool WTP (L_HWTP)	C1-2a	Loss factor for losses between Harpool WTP intake and discharge (from Table I-1)
WTP, Pumping & Piping Losses in Raw Water System, Harpool WTP	C1-3	Losses between WTP intake and WTP discharge (Harpool WTP). Computed quantity.
District's CLW Discharged into Doe Branch	C1-4	District's portion of Chapman Lake water discharged directly into Doe Branch. Computed quantity.
Doe Branch Loss Factor (L_Doe)	C1-4a	Loss factor for computing conveyance losses in Doe Branch (from Table I-1)
Doe Branch Conveyance Losses	C1-5	Conveyance losses of District's portion of Chapman Lake water within Doe Branch. Computed quantity.

FIELD	COLUMN #	DESCRIPTION
CLW Discharged Directly into Doe Branch Less Doe Branch Conveyance Losses	C1-6	Total amount of Chapman Lake water available for diversion by the District after subtraction of Doe Branch conveyance losses. Computed quantity.
CLW Withdrawn from LL by Non-UTRWD Entities	C1-6a	Amount of Chapman Lake water diverted from Lewisville Lake by District raw water customers (from Table I-2, Col. 7).
CLW Available for Withdrawal by District (at intake)	C1-6b	Amount of Chapman Lake water available for diversion from Lewisville Lake by District. Computed quantity.
Assumed WTP and Raw Water Conveyance Losses, Regional WTP (L_RWTP)	C1-6c	Loss factor for losses between Regional WTP intake and discharge (from Table I-1)
Flow Weighted WTP and Raw Water Conveyance Losses, Both WTPs	C1-6d	Flow-weighted average of the Harpool and Regional loss factors (Columns [2a] and [6c], respectively)
WTP, Pumping & Piping Losses in Raw Water System, RWTP	C1-7	Losses between WTP intake and WTP discharge (RWTP). Computed quantity.
CLW Available for Distribution from RWTP	C1-7a1	Amount of Chapman Lake water available for distribution from Regional WTP. Computed quantity.
CLW Available for Distribution from HWTP	C1-7a2	Treated Chapman Lake water available for distribution from Harpool WTP. (from Table I-2, Col. 5)
Total CLW Available for Distribution from both WTPs (at WTP)	C1-7a	Total amount of Chapman Lake water available for distribution to Chapman Lake water customers from both WTPs (Column [7a1] + Column [7a2]).
Total Raw Water Withdrawn by RWTP	C1-8	Total amount of raw water diverted from Lewisville Lake to RWTP (from Table I-2, Column 5).
Total Treated Water Leaving RWTP (at WTP - i.e., at treated side)	C1-8a1	Total amount of raw water diverted from Lewisville Lake less losses between raw water and treated water meters at RWTP. Computed quantity.
Total Treated Water Leaving both WTPs (at WTP - i.e., at treated side)	C1-8a	Total amount of treated water leaving both WTPs. (Column [8a1] + Column [7a2]).
Total Treated Water Supplied to ALL Water Customers (at customer meters)	C1-8b	Total amount of treated water supplied to all water customers. Sum of daily metered values for all water customer meters, obtained from Table I-2 (includes

FIELD	COLUMN #	DESCRIPTION
		Flower Mound).
Total Treated Water Supplied to CL Water Customers (at customer meters)	C1-9	Total amount of treated water supplied to all Chapman Lake water customers. Sum of daily metered values from all Chapman water customer meters, obtained from Table I-2 (does not include Flower Mound).
Consumption Loss Factor (L_CONS_a)	C1-9a	Loss factor defining losses between WTP discharge and Chapman Lake water customer meters (from Table I-1).
Total Treated Water Supplied to ALL Water Customers (at WTP)	C1-9b	Amount of treated water supplied to all water customers, referenced to WTP discharge. Losses between the WTP discharge and customer meters are added to the value in Column [8b] to compute this number. Computed quantity.
Total Treated Water Supplied to CL Water Customers (at WTP)	C1-10	Amount of treated water supplied to Chapman Lake water customers, referenced to the WTP discharge. Losses between the WTP discharge and the customer meters are added to the value in Column [9] to compute this number. Computed quantity.
Total Treated Water Supplied to CL Water Customers less CLRW (at WTP)	C1-10b	Amount of treated water supplied to Chapman Lake water customers after use of Chapman Lake Reuse Water.
Total Treated Water Supplied to Other Water Customers (at WTP)	C1-10c	Amount of treated water supplied to other water customers (i.e. Flower Mound)
Potential CLW Demand from Other Water Customers (at WTP)	C1-10d	Potential Chapman Lake Water demand from other water customers.
CLW Water Supplied to Other Water Customers (at WTP)	C1-10e	Chapman Lake Water supplied to other water customers.
Treated CLW Supplied to CL Water Customers (at WTP)	C1-11	Total amount of treated Chapman Lake Water (does not include reuse water) supplied to Chapman Lake water customers, referenced to the discharge of the WTP.
Unutilized CLW (at WTP)	C1-11a	Amount of Chapman Lake Water not used to supply Chapman Water

FIELD	COLUMN #	DESCRIPTION
		customers (referenced to discharge of WTP).
Unutilized CLRW (at WTP)	C1-11b	Amount of Chapman Lake Reuse Water not used to supply Chapman Water customers (referenced to discharge of WTP).
Ratio CLW Supplied to CL Water Customers to Total Treated Water Supplied to CL Water Customers	C1-12	Percentage of Chapman Lake water supplied to each Chapman Lake water customer. Computed quantity.
Amount of Water Purchased by District from Dallas	C1-13	Amount of water purchased by the District from Dallas (from Table I-2)
Amount of Water Purchased by District from Denton	C1-14	Amount of water purchased by the District from Denton (from Table I-2)
Available Chapman Lake Reuse Water (CLRW) (from Table C-6; previous day)	C1-15	Amount of Chapman Lake water available for reuse on given day (at point of diversion from Lewisville Lake). Taken from column [38] of Table C-6 from previous day's calculations. Computed quantity.
Available Chapman Lake Reuse Water (CLRW) (at WTP)	C1-16	Amount of Chapman Lake water available for reuse on given day, referenced to treated water side of WTP.
Potential CLRW Used by CL Customers	C1-16c	Interim calculation of potential Chapman Lake Reuse water used by Chapman Lake Water Customers. If available CLRW ([C1-16]) is greater than total treated water supplied to "other" customers ([C1-10c]), then [C1-16c] is equal to [C1-16] – [C1-10c]. Otherwise equal to zero.
CLRW Used by CL Customers	C1-16d	Total amount of Chapman Lake Reuse Water used by Chapman Lake Customers.
Total Raw Water Withdrawal minus CLRW	C1-18	Interim calculation. If total raw water withdrawal is less than available CLRW, equal to zero. Otherwise, equal to total raw water withdrawal minus available CLRW.
Potential New CLW Withdrawal (only if less than CLW Demand)	C1-19	Interim calculation. If [C1-18] is less than new CLW available then equal to [C1-18]. Otherwise equal to new CLW available ([C1-7a]).

FIELD	COLUMN #	DESCRIPTION
Potential CLW Available for Supply to Other Water Customers	C1-19a	Potential Chapman Lake Water available for supply to other water customers.
Excess CLW used to make up difference between withdrawal and demand	C1-19b	Excess Chapman Lake Water used to make up difference between withdrawal and demand.
Amount of Water Calculated to be Purchased by District from Dallas/Denton	C1-20	Remaining demand that cannot be satisfied by CLW or CLRW.

Table C-2

This table contains all calculations pertaining to an individual customer of a regional WWTP. Each column is described in detail below.

FIELD	COLUMN #	DESCRIPTION
Delivered District Water to [Name of Customer]	C2-17	Total amount of treated water delivered to this particular Chapman Lake water customer (from Table I-2).
CLW Delivered to [Name of Customer] (at customer meter)	C2-18	Amount of Chapman Lake water delivered to this particular Chapman Lake water customer. Computed quantity, based on percentage of Chapman Lake water computed in Column [12] of Table C-1.
Treated CLW Pumped to [Name of Customer] (at WTP)	C2-19	Amount of Chapman Lake water provided to this particular Chapman Lake water customer, referenced to the discharge of the WTP. Losses between the WTP discharge and the customer meter are added to the value in Column [C2-18] to compute this quantity.
Return Flow Percentage	C2-20	Return flow percentage for the WWTP used by this water customer (from Table I-1).
CLW in WWTP Discharge from Customer (CWRF)	C2-21	Portion of Chapman Lake water return flow in WWTP discharge attributed to this particular customer.
WWTP Measured Discharge	C2-22	Measured WWTP discharge from WWTP serving this particular customer (from Table I-3).
WWTP Distance from Lewisville Lake	C2-22a	Distance of WWTP discharge point to water surface of Lewisville Lake.

FIELD	COLUMN #	DESCRIPTION
		Obtained from Stream Distance Lookup Table (attached) relating distance to water surface elevation.
Channel Loss Factor (LF)	C2-23	Channel loss factor (expressed as fraction of total Chapman Lake water in WWTP discharge). Computed as described in section 4.2(c) 5. of the reuse agreement.
Channel Losses	C2-24	Amount of Chapman Lake water lost to channel losses, attributed to this individual customer.
CWRF less Channel Losses	C2-25	Chapman water return flow minus channel losses, attributed to this individual customer.

Table C-3

This table computes the sum of relevant columns from Table C-2, for all individual customers of a regional WWTP. In addition, consideration of any direct or indirect reuse losses is included in this table. Each column is described in detail below.

FIELD	COLUMN #	DESCRIPTION
CLW Delivered to CL Water Customers (at customer meter)	C3-26	Amount of Chapman Lake water delivered to all customers of this WWTP (referenced to customer meters). Sum of column [18] for all customers of this WWTP.
Treated CLW Pumped to CL Water Customers (at WTP)	C3-27	Amount of Chapman Lake water provided to all customers of this WWTP, referenced to the discharge of the WTP. Sum of column [19] for all customers of this WWTP.
CLW in WWTP Discharge (CWRF)	C3-28	Portion of Chapman Lake water return flow in WWTP discharge. Sum of column [21] for all customers of this WWTP.
Channel Losses	C3-29	Amount of Chapman Lake water lost to channel losses following discharge from the WWTP. Sum of column [24] for all customers of this WWTP.
Direct/Indirect Reuse Losses	C3-30	Amount of Chapman Lake water lost to direct or indirect reuse (from Table I-3).
Available Chapman Lake Reuse Water	C3-31	Chapman Lake water available for reuse, attributed to this WWTP, following

FIELD	COLUMN #	DESCRIPTION
		subtraction of channel and direct/indirect reuse losses.
WWTP Measured Discharge	C3-32	Measured WWTP discharge from this particular WWTP (from Table I-3).

Tables C-4 and C-5

These tables are identical in format to Tables C-2 and C-3, except that they apply to customers whose wastewater is treated at an individual WWTP, rather than a regional WWTP. Table C-4 contains computed quantities for each individual customer and Table C-5 sums all relevant quantities for all individual customers. Since these tables are identical in format to Tables C-2 and C-3, detailed descriptions of each column will not be repeated here.

Table C-6

This table computes the sum of relevant columns from Tables C-3 and C-5, for all WWTP customers (both individual and regional) included in the accounting model. Each column is described in detail below.

FIELD	COLUMN #	DESCRIPTION
CLW Delivered to CL Water Customers (at customer meter)	C6-33	Amount of Chapman Lake water delivered to all customers of all WWTPs (referenced to customer meters). Sum of column [26] from Tables C-3 and C-5.
Treated CLW Pumped to CL Water Customers (at WTP)	C6-34	Amount of Chapman Lake water provided to all customers of all WWTPs, referenced to the discharge of the WTP. Sum of column [27] from Tables C-3 and C-5.
CLW in WWTP Discharge (CWRF)	C6-35	Amount of Chapman Lake water return flow in WWTP discharge from all WWTPs. Sum of column [28] from Tables C-3 and C-5.
Channel Losses	C6-36	Total amount of Chapman Lake water lost to channel losses from all WWTPs. Sum of column [29] from Tables C-3 and C-5.
Direct/Indirect Reuse Losses	C6-37	Total amount of Chapman Lake water lost to direct or indirect reuse. Sum of column [30] from Tables C-3 and C-5.
Available Chapman Lake Reuse Water	C6-38	Total amount of Chapman Lake water available for reuse, following subtraction of channel and direct/indirect reuse

FIELD	COLUMN #	DESCRIPTION
		losses. Sum of column [31] from Tables C-3 and C-5.
Total WWTP Measured Discharge	C6-39	Total measured WWTP discharge from all WWTPs. Sum of column [32] from Tables C-3 and C-5.
Unconsumed CL Water Returned to Lake (on following day)	C6-40	Amount of Chapman Lake reuse water returned to Lewisville Lake following all authorized District uses (see section 5.3 (i) 1. of reuse agreement).

Summary Tables S-1 and S-2

These tables contain the summary information to be reported to Dallas and Denton on a regular basis. Table S-1 provides a monthly summary of measured and computed values, as required in section 5.3 of the reuse agreement. Table S-2 will be provided on an annual basis and includes an annual summary of values from the monthly summary tables. All columns contained in the summary tables reference columns contained either in the input or calculation sheets. Therefore, a separate detailed description of these tables will not be presented here.

Exhibit H

Upper Trinity Regional Water District

August 30, 2017

Accounting Plan with text file available upon request

Contact Mr. Chris Kozlowski at (512) 239-1801