

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



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 9, 2015

Bridget C. Bohac
Texas Commission on Environmental Quality
Office of the Chief Clerk, MC_T105
P.O. Box 13087
Austin, Texas 78711-3087

Re: Application by the City of Liberty Hill for a major amendment and renewal of
TPDES Permit No. WQ0014477001; TCEQ Docket No. 2014-1720-MWD

Dear Ms. Bohac:

I have enclosed the Executive Director's Response to Hearing Requests. Please let me know if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Stefanie Skogen".

Stefanie Skogen
Staff Attorney
Environmental Law Division

Enclosure

cc: Mailing list

TCEQ Docket No. 2014-1720-MWD

| | | |
|-----------------------------------|----------|------------------------------|
| APPLICATION BY THE CITY OF | § | BEFORE THE TEXAS |
| LIBERTY HILL FOR A MAJOR | § | |
| AMENDMENT AND RENEWAL OF | § | COMMISSION ON |
| TEXAS POLLUTANT DISCHARGE | § | |
| ELIMINATION SYSTEM (TPDES) | § | ENVIRONMENTAL QUALITY |
| PERMIT NO. WQ0014477001 | § | |

EXECUTIVE DIRECTOR'S RESPONSE TO HEARING REQUESTS

The Executive Director (ED) of the Texas Commission on Environmental Quality (Commission or TCEQ) files this Response to Hearing Requests on the City of Liberty Hill's application for a major amendment and renewal of TPDES Permit No. WQ0014477001. Sharon Cassady, Terry Cassady, the City of Leander, and Audrey Swearingen filed hearing requests.

Attached for Commission consideration are the following:

- Attachment A – Satellite map of the area
- Attachment B – Fact Sheet and ED's Preliminary Decision
- Attachment C – Proposed permit¹
- Attachment D – ED's Response to Public Comment (RTC)
- Attachment E – Compliance History Reports

I. FACILITY DESCRIPTION

Liberty Hill applied to the TCEQ for a major amendment and renewal of TPDES Permit No. WQ0014477001 to authorize an increase in the discharge of treated domestic wastewater effluent from an annual average flow not to exceed 1.2 million gallons per day to an annual average flow not to exceed 4.0 million gallons per day. The wastewater treatment facility is located approximately 5,000 feet north of the South Fork San Gabriel River and 2,000 feet east of U.S. Highway 183 in Williamson County, Texas 78641. The treated effluent is discharged to the South Fork San Gabriel River in Segment No. 1250 of the Brazos River Basin. The designated uses for Segment No. 1250 are high aquatic life use, public water supply, aquifer protection, and primary contact recreation.

II. BACKGROUND

The TCEQ received the application on February 11, 2013, and declared it

¹ A corrected page for the proposed permit was filed with the Chief Clerk's Office on February 5, 2015, and is part of the attached permit. The ED corrected three typographical errors on page 2a for the total phosphorus seven-day average, daily maximum, and single grab effluent limits. Those limits have been corrected so they are the same as they are in the Final phase of the existing permit, which was discussed on pages 3 and 6 of the Fact Sheet and Executive Director's Preliminary Decision.

administratively complete on March 21, 2013. The first Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) was published on April 3, 2013. ED staff completed the technical review of the application on March 21, 2014, and prepared a draft permit. The first Notice of Application and Preliminary Decision for a Water Quality Permit (NAPD) was published on May 15, 2014. Due to issues with the first NORI and NAPD, a combined NORI/NAPD/Notice of Public Meeting was published on July 6, 2014, in *The Williamson County Sun*. A public meeting was held on August 7, 2014, which was also the date the public comment period ended. The ED filed its RTC on October 2, 2014. The hearing request and request for reconsideration period ended on November 6, 2014.

III. THE EVALUATION PROCESS FOR HEARING REQUESTS

House Bill 801 established statutory procedures for public participation in certain environmental permitting proceedings. For those applications declared administratively complete on or after September 1, 1999, it established new procedures for providing public notice and public comment and for the Commission's consideration of hearing requests. The application in this case was declared administratively complete on March 21, 2013. Therefore, it is subject to the House Bill 801 requirements. The Commission implemented House Bill 801 by adopting procedural rules in title 30, chapters 39, 50, and 55 of the Texas Administrative Code.

A. Response to Requests

"The ED, the public interest counsel, and the applicant may submit written responses to [hearing] requests"²

According to section 55.209(e), responses to hearing requests must specifically address the following:

- (1) Whether the requestor is an affected person
- (2) Which issues raised in the hearing request are disputed
- (3) Whether the dispute involves questions of fact or law
- (4) Whether the issues were raised during the public comment period
- (5) Whether the hearing request is based on issues raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the ED's RTC
- (6) Whether the issues are relevant and material to the decision on the application
- (7) A maximum expected duration for the contested case hearing

B. Hearing Request Requirements

For the Commission to consider a hearing request, the Commission must first determine whether the request meets certain requirements. As noted in section

² 30 TEX. ADMIN. CODE § 55.209(d) (West 2014).

55.201(c), "A request for a contested case hearing by an affected person must be in writing, must be filed with the chief clerk within the time provided . . . , and may not be based on an issue that was raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the ED's RTC."

According to section 55.201(d), a hearing request must substantially comply with the following:

- (1) Give the name, address, daytime telephone number, and, where possible, fax number of the person who files the request. If the request is made by a group or association, the request must identify one person by name, address, daytime telephone number, and, where possible, fax number, who shall be responsible for receiving all official communications and documents for the group.
- (2) Identify the person's personal justiciable interest affected by the application, including a brief, but specific, written statement explaining in plain language the requestor's location and distance relative to the proposed facility or activity that is the subject of the application and how and why the requestor believes he or she will be adversely affected by the proposed facility or activity in a manner not common to members of the general public.
- (3) Request a contested case hearing.
- (4) List all relevant and material disputed issues of fact that were raised during the public comment period and that are the basis of the hearing request. To facilitate the commission's determination of the number and scope of issues to be referred to hearing, the requestor should, to the extent possible, specify any of the ED's responses to comments that the requestor disputes and the factual basis of the dispute and list any disputed issues of law or policy.
- (5) Provide any other information specified in the public notice of application.

C. Requirement that the Requestor Be an Affected Person

To grant a contested case hearing, the Commission must determine that a requestor is an affected person. The factors to consider in making this determination are found in section 55.203 and are as follows:

- (a) For any application, an affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. An interest common to members of the general public does not qualify as a personal justiciable interest.
- (b) Governmental entities, including local governments and public agencies, with authority under state law over issues raised by the application may be considered affected persons.
- (c) In determining whether a person is an affected person, all factors shall be

considered, including, but not limited to, the following:

- (1) Whether the interest claimed is one protected by the law under which the application will be considered
- (2) Distance restrictions or other limitations imposed by law on the affected interest
- (3) Whether a reasonable relationship exists between the interest claimed and the activity regulated
- (4) Likely impact of the regulated activity on the health and safety of the person, and on the use of property of the person
- (5) Likely impact of the regulated activity on use of the impacted natural resource by the person
- (6) For governmental entities, their statutory authority over or interest in the issues relevant to the application

D. Referral to the State Office of Administrative Hearings (SOAH)

Section 50.115(b) details how the Commission refers a matter to SOAH: "When the commission grants a request for a contested case hearing, the commission shall issue an order specifying the number and scope of the issues to be referred to SOAH for a hearing." Section 50.115(c) further states, "The commission may not refer an issue to SOAH for a contested case hearing unless the commission determines that the issue: (1) involves a disputed question of fact; (2) was raised during the public comment period; and (3) is relevant and material to the decision on the application."

IV. HEARING REQUEST ANALYSIS

A. Whether the Requestors Complied with Section 55.201(c) and (d)

1. Sharon Cassady

Sharon Cassady submitted a timely written hearing request on May 10, 2013, that raised issues presented during the public comment period that have not been withdrawn. She provided her address and phone number and requested a contested case hearing. She identified herself as a person with what she believed to be a personal justiciable interest affected by the application, which will be discussed in greater detail below, and provided a list of disputed issues of fact that were raised during the public comment period. The ED concludes that the hearing request substantially complies with the section 55.201(c) and (d) requirements.

2. Terry Cassady

Terry Cassady submitted a timely written hearing request on October 15, 2014, that raised issues presented during the public comment period that have not been withdrawn. He provided his address and phone number and stated that he wished "to

contest the hearing on this permit,"³ which the ED has interpreted to mean that he is requesting a contested case hearing. He identified himself as a person with what he believed to be a personal justiciable interest affected by the application, which will be discussed in greater detail below, and provided a list of disputed issues of fact that were raised during the public comment period. The ED concludes that the hearing request substantially complies with the section 55.201(c) and (d) requirements.

3. City of Leander

Leander submitted a timely written hearing request on May 30, 2014, and a timely addendum to that hearing request on November 6, 2014, that raised issues presented during the public comment period that have not been withdrawn. It provided its address and phone number and those of its representative and requested a contested case hearing. It identified itself as a person with what it believed to be a personal justiciable interest affected by the application, which will be discussed in greater detail below, and provided a list of disputed issues of fact that were raised during the public comment period. The ED concludes that the hearing requests substantially comply with the section 55.201(c) and (d) requirements.

4. Audrey Swearingen

Audrey Swearingen submitted a timely written hearing request on October 8, 2013, that raised issues presented during the public comment period that have not been withdrawn. She provided her address and phone number and requested a hearing. She identified herself as a person with what she believed to be a personal justiciable interest affected by the application, which will be discussed in greater detail below, and provided a list of disputed issues of fact that were raised during the public comment period. The ED concludes that the hearing request substantially complies with the section 55.201(c) and (d) requirements.

B. Whether the Requestors Met the Affected Person Requirements

1. Sharon Cassady

Ms. Cassady's property is located less than one mile downstream from the discharge point and backs up to the South Fork San Gabriel River. She is on the adjacent landowners list that was submitted with the application. Considering the factors listed in section 55.203(c) used to determine affected person status, the proximity of her residence to the discharge point and her concerns regarding discharges from the wastewater treatment system suggest she has a personal justiciable interest not in common with members of the general public. Furthermore, Ms. Cassady purchased her property on the river to use it for recreational purposes. The requested increase in wastewater discharge could possibly impact the use of her property and her use of the

³ Hearing request from Terry Cassady 1 (Oct. 14, 2014).

river.⁴ Therefore, Ms. Cassady has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public and is an affected person.⁵

The ED recommends that the Commission find that Sharon Cassady is an affected person.

2. Terry Cassady

Mr. Cassady's property is located less than one mile downstream from the discharge point and backs up to the South Fork San Gabriel River. He is on the adjacent landowners list that was submitted with the application. Considering the factors listed in section 55.203(c) used to determine affected person status, the proximity of his residence to the discharge point and his concerns regarding discharges from the wastewater treatment plant suggest he has a personal justiciable interest not in common with members of the general public. Furthermore, Mr. Cassady stated that the existing discharge has eliminated the ability to use the river for recreational purposes. The requested increase in wastewater discharge could possibly impact his use of the river. Therefore, Mr. Cassady has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public and is an affected person.

The ED recommends that the Commission find that Terry Cassady is an affected person.⁶

3. City of Leander

Leander presented several reasons as to why it is an affected person in this matter. First, Leander noted that Liberty Hill's facility is located approximately one mile from Leander's extraterritorial jurisdiction (ETJ) and three miles from Leander's wastewater facility. Second, Leander stated that it intends to provide sewer service within its corporate boundary and its ETJ north of the South Fork San Gabriel River, an area it referred to as the Leander Territory. It has received service requests in that area and has contracted with Leander Municipal Utility District No. 3 to build a wastewater treatment plant that will serve up to 1,740 living unit equivalents. Leander is working on a certificate of convenience and necessity application that will include area north of the South Fork San Gabriel River. Leander also seemed to say that area that Liberty Hill intends to provide service to is located in the Leander Territory. This overlapping

⁴ See TEX. ADMIN. CODE § 55.203(c)(4) (listing the likely impact of the regulated activity on the health and safety of the person and on the use of the property of the person as a factor the Commission shall consider when determining if a person is an affected person) and (5) (listing the likely impact of the regulated activity on use of the impacted natural resource by the person as a factor the Commission shall consider when determining if a person is an affected person).

⁵ *Id.* § 55.203(a); see also *id.* § 55.211(c)(2) (addressing hearing requests from affected persons that will be granted).

⁶ *Id.* § 55.203(a); see also *id.* § 55.211(c)(2) (addressing hearing requests from affected persons that will be granted).

competition for customers could affect Leander's ability to provide service in the Leander Territory. Third, Leander argued that it has jurisdiction to regulate subdivision development within its corporate boundary and ETJ. Utility service providers within Leander's corporate boundary must obtain a franchise. Leander has an economic interest in development within its corporate boundary and ETJ, including the timely extension of utilities that makes such development possible. Leander stated that its development interests are best served when it is also the service provider because it can better provide for orderly development, developers benefit from the regulatory entity and utility provider being the same entity, and persons who receive service from the city and live in the city will have a political voice with their service provider.

Leander has not shown that it is an affected person in this matter. While a portion of Leander is located within one mile of Liberty Hill's facility, Leander did not state how this proximity makes it an affected person. The other arguments Leander presented were geared towards how Leander might be impacted if Liberty Hill provides service within the Leander Territory and who would better serve area located within the Leander Territory, both of which are arguments better suited for a certificate of convenience and necessity case. They are not issues that are considered as part of the wastewater discharge permit application process and, therefore, are not relevant in this matter. Based on the information in the hearing request, the ED cannot identify a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public which would make Leander an affected person.⁷ Therefore, Leander has not met the section 55.203 requirements.

The ED recommends that the Commission find that Leander is not an affected person.

4. Audrey Swearingen

Audrey Swearingen identified herself as a resident of the High Gabriel Estates neighborhood, which is located adjacent to the South Fork San Gabriel River across from the discharge point, and provided her address. While Ms. Swearingen stated that she is joining with the Save the South San Gabriel organization to request a hearing, she did not state that she was representing the group and did not provide documentation showing the group had authorized her to represent it in this matter. Therefore, the ED analyzed the hearing request as being from an individual. As Attachment A shows, Ms. Swearingen's property is not located on the discharge route or adjacent to the wastewater treatment plant site. Looking at the factors listed in section 55.203(c), it is not obvious from the property's location how Ms. Swearingen's property would be directly affected by the application, as there is other property and a road between her property and the discharge route, and Ms. Swearingen did not discuss how her property could be affected. Most of the hearing request discussed the river's condition since Ms. Swearingen moved to the neighborhood in 2011, but she did not discuss if or how this

⁷ *Id.* § 55.203(a); *see also id.* § 55.211(c)(2) (addressing hearing requests from affected persons that will be granted).

has impacted her use of the river. The closest she came to this was when she stated that she enjoys a private neighborhood park⁸ that provides access to the river, but she did not state where on the river that access exists other than a "a bit east of U.S. 183,"⁹ which could put that access upstream from the discharge point. Based on the information in the hearing request, the ED cannot identify a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public which would make Ms. Swearingen an affected person.¹⁰ Therefore, Ms. Swearingen has not met the section 55.203 requirements.

The ED recommends that the Commission find that Audrey Swearingen is not an affected person.

C. Whether Issues Raised Are Referable to SOAH for a Contested Case Hearing

The ED analyzed the issues raised in the hearing requests that it has recommended granting in accordance with the regulatory criteria and provides the following recommendations regarding whether the issues can be referred to SOAH if the Commission grants the hearing requests. All issues were raised during the public comment period, and none of the issues were withdrawn. All identified issues are considered disputed unless otherwise noted.

1. Whether the proposed permit would adversely affect algae growth in the receiving water. (RTC No. 1)

This is an issue of fact. If it can be shown that the facility would adversely affect algae growth in the receiving water, that information would be relevant and material to a decision on the application. The ED recommends referring this issue to SOAH.

2. Whether the proposed permit would adversely affect the receiving water's primary contact recreation use. (RTC No. 6)

This is an issue of fact. If it can be shown that the facility would adversely affect the receiving water's primary contact recreation use, that information would be relevant and material to a decision on the application. The ED recommends referring this issue to SOAH.

3. Whether the proposed permit would adversely affect the normal use and enjoyment of properties adjacent to the discharge route. (RTC No. 3)

This is an issue of fact. If it can be shown that the facility would adversely affect the normal use and enjoyment of properties adjacent to the discharge route, that

⁸ The hearing request says "part," but the ED believes it should have been "park" based on the context. Hearing request from Audrey Swearingen 1 (Oct. 7, 2013).

⁹ *Id.*

¹⁰ 30 TEX. ADMIN. CODE § 55.203(a); *see also id.* § 55.211(c)(2) (addressing hearing requests from affected persons that will be granted).

information would be relevant and material to a decision on the application. The ED recommends referring this issue to SOAH.

4. *Whether the proposed daily average total phosphorus effluent limit in the Final phase of the permit of 0.15 milligrams per liter would be sufficient to protect water quality.* (RTC Nos. 4 and 13)

This is an issue of fact. If it can be shown that the proposed daily average total phosphorus limit would not be sufficient to protect water quality, that information would be relevant and material to a decision on the application. The ED recommends referring this issue to SOAH.

V. CONTESTED CASE HEARING DURATION

If there is a contested case hearing on this application, the ED recommends that the duration of the hearing be nine months from the preliminary hearing to the presentation of a proposal for decision to the Commission.

VI. CONCLUSION

Because Sharon Cassady and Terry Cassady have met the hearing request requirements, the ED recommends granting their hearing requests and referring Issue Nos. 1-4 for a nine-month hearing.

Respectfully submitted,

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

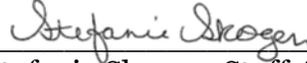
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CERTIFICATE OF SERVICE

I certify that on February 9, 2015, a copy of the foregoing document was sent by first class mail or electronic mail to the persons on the attached mailing list.



Stefanie Skogen, Staff Attorney
Environmental Law Division

Mailing List City of Liberty Hill TCEQ Docket No. 2014-1720-MWD

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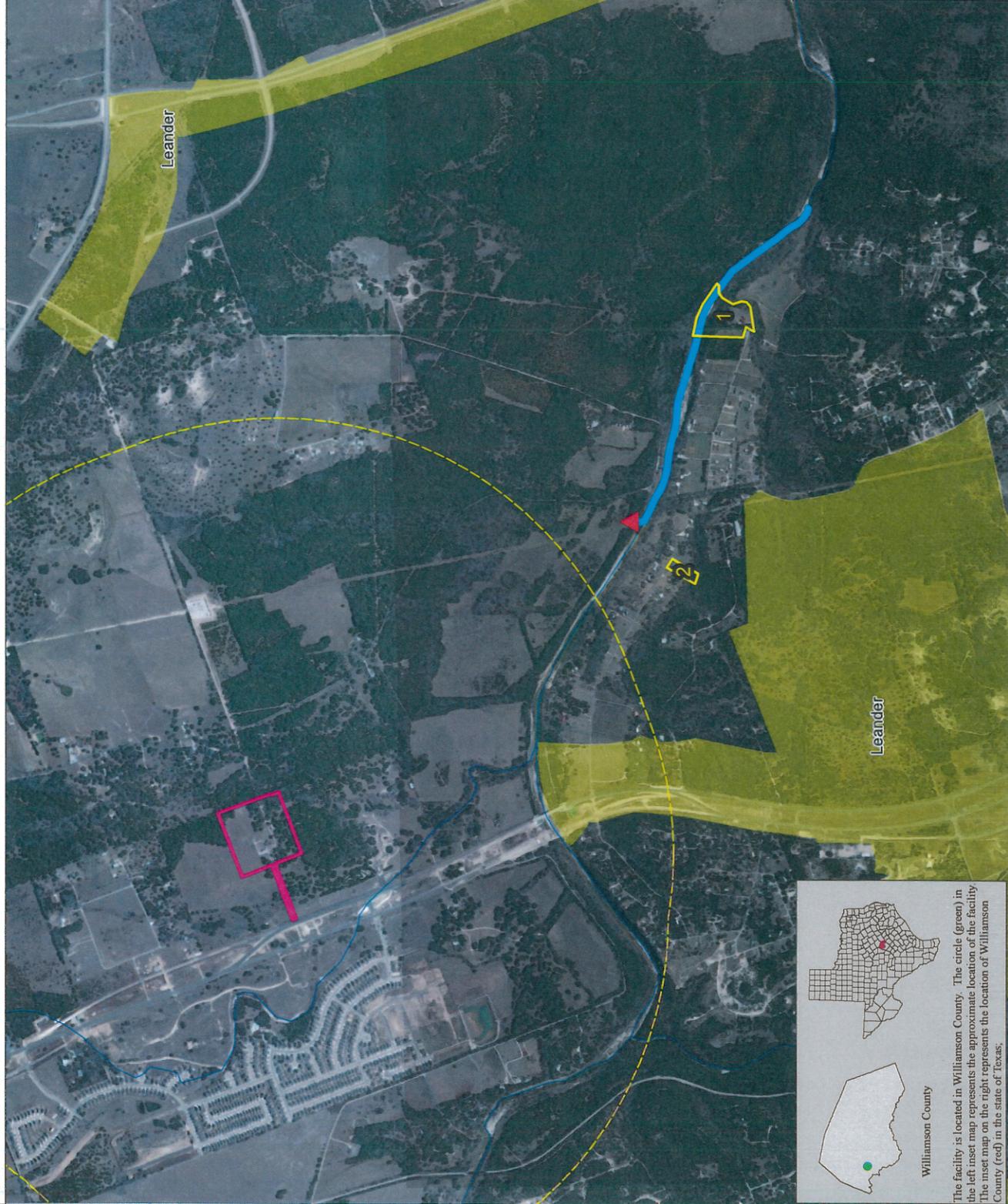
ATTACHMENT A

City of Liberty Hill WQ0014477001

Map Requested by TCEQ Office of Legal Services
for Commissioners' Agenda



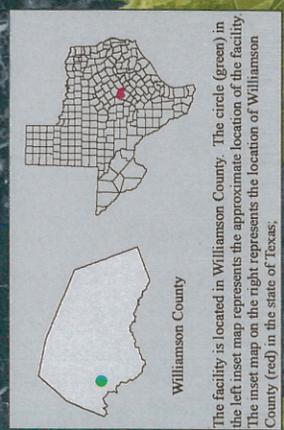
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 12/18/2014



- Facility boundary
 - Outfall
 - Requestor property (approximate)
 - 1 mile downstream discharge
 - 1 radial mile distance from facility
 - Leander city limits (MNET)
- Terry & Sharon
1 Cassidy
2 Audrey Swearingen
3 City of Leander (see polygons)

Source: The location of the facility was provided by the TCEQ Office of Legal Services (OLS). OLS obtained the site location information from the applicant and the requestor information from the requestor. The background imagery of this map is from the current Environmental Systems Research Institute (ESRI) map service, as of the date of this map.

This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.



ATTACHMENT B

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For proposed Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014477001, TX0126195 to discharge to water in the State.

Issuing Office: Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Applicant: City of Liberty Hill
P.O. Box 1920
Liberty Hill, Texas 78642

Prepared By: Julian D. Centeno, Jr., P.E.
Municipal Permits Team
Wastewater Permitting Section (MC 148)
Water Quality Division
(512) 239-4608

Date: March 21, 2014 (revised July 1, 2014, September 15, 2014)

Permit Action: Major Amendment

1. EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit includes an expiration date of **December 1, 2018** according to 30 Texas Administrative Code (TAC) § 305.71, Basin Permitting.

2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment of the existing permit to authorize an increase in the discharge of treated domestic wastewater from an annual average flow not to exceed 1.2 million gallons per day to an annual average flow not to exceed 4.0 million gallons per day. The existing wastewater treatment facility serves the City of Liberty Hill Wastewater CCN, MUD #12, MUD #13, MUD #19, Stonewall Ranch MUD Williamson Liberty Hill MUD, MUD 19A.

3. FACILITY AND DISCHARGE LOCATION

The plant site is located approximately 5,000 feet north of the South Fork San Gabriel River and 2,000 feet east of US Highway 183 in Williamson County, Texas 78641.

The treated effluent is discharged to South Fork San Gabriel River in Segment No. 1250 of the Brazos River Basin. The designated uses for Segment No. 1250 are high aquatic life use, public water supply, aquifer protection and primary contact recreation.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The Liberty Hill Regional Wastewater Treatment Facility is an activated sludge process plant operated in the extended aeration mode in all phases. Treatment units in the interim I phase include bar screen, sequencing batch reactors, chemical addition for phosphorus removal, post-equalization basin, aerobic sludge digester, effluent rotating disc filters, UV disinfection system and step aeration system. Future phase SBRs and digester units will be identical to Interim I phase sizing. Filters and UV disinfection units are sized for the final phase. The facility is operating in the Interim I phase. The Interim II and the Final phase facilities have not been constructed.

Sludge generated from the treatment facility is hauled by a registered transporter to Brushy Creek Regional Wastewater Treatment Facility, Permit No. WQ0010264002 to be digested, dewatered and then disposed of with the bulk of the sludge from the plant accepting the sludge. The draft permit also authorizes the disposal of sludge at a TCEQ authorized land application site or co-disposal landfill.

5. INDUSTRIAL WASTE CONTRIBUTION

The draft permit includes pretreatment requirements that are appropriate for a facility of this size and complexity. The facility does not appear to receive significant industrial wastewater contributions.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

The following is a summary of the applicant's Monthly Effluent Report data for the period February 2008 through November 2013. The average of Daily Avg. value is computed by the averaging of all 30-day average values for the reporting period for each parameter.

| <u>Parameter</u> | <u>Average of Daily Avg.*</u> |
|------------------------------------|--|
| Flow, MGD | 0.105 |
| CBOD ₅ , mg/l | 2.2 |
| TSS, mg/l | 2.0 |
| NO ₃ -N, mg/l | 4.4 |
| NH ₃ -N, mg/l | 1.1 |
| Total Phosphorus, mg/l | 0.3 |
| <i>E. coli</i> , CFU or MPN/100 ml | 2.4 (geometric mean of data from January 2010 through November 2013) |

*measurements reported as <number are taken as equal to the number for averaging purposes.

7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

The effluent limitations and monitoring requirements for those parameters that are limited in the draft permit are as follows:

A. INTERIM I PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The daily average flow of effluent shall not exceed 0.40 million gallons per day

(MGD); nor shall the average discharge during any two-hour period (2-hour peak) exceed 903 gallons per minute (gpm).

| <u>Parameter</u> | <u>30-Day Average</u> | | <u>7-Day</u> | <u>Daily</u> |
|---------------------------------------|-----------------------|----------------|-------------------------------|-------------------------------|
| | <u>mg/l</u> | <u>lbs/day</u> | <u>Average</u> <u>mg/l</u> | <u>Maximum</u> <u>mg/l</u> |
| CBOD ₅ | 5 | 17 | 10 | 20 |
| TSS | 5 | 17 | 10 | 20 |
| NH ₃ -N | 2 | 6.7 | 5 | 10 |
| Total Phosphorus | 0.5 | 1.7 | 1 | 2 |
| Nitrate-Nitrogen | 16.6 | 55 | N/A | 35.2 |
| Total Nitrogen | Report | Report | N/A | N/A |
| DO (minimum) | 5.0 | N/A | N/A | N/A |
| <i>E. coli</i> , CFU or MPN/100 ml | 126 | N/A | N/A | N/A |

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

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.

| <u>Parameter</u> | <u>Monitoring Requirement</u> |
|--------------------|-------------------------------|
| Flow, MGD | Five/week |
| CBOD ₅ | One/week |
| TSS | One/week |
| NO ₃ -N | One/week |
| NH ₃ -N | One/week |
| Total P | One/week |
| Total Nitrogen | One/week |
| DO | One/week |
| <i>E. coli</i> | Five/week |

B. INTERIM II PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 1.2 million gallons per day (MGD); nor shall the average discharge during any two-hour period (2-hour peak) exceed 2389 gallons per minute (gpm).

| <u>Parameter</u> | <u>30-Day Average</u> | | <u>7-Day</u> | <u>Daily</u> |
|--------------------|-----------------------|----------------|-------------------------------|-------------------------------|
| | <u>mg/l</u> | <u>lbs/day</u> | <u>Average</u> <u>mg/l</u> | <u>Maximum</u> <u>mg/l</u> |
| CBOD ₅ | 5 | 50 | 10 | 20 |
| TSS | 5 | 50 | 10 | 20 |
| NH ₃ -N | 2 | 20 | 5 | 10 |
| Nitrate-Nitrogen | 16.6 | 166 | N/A | 35.2 |

City of Liberty Hill TPDES Permit No. WQ0014477001
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| | Report | Report | Report | Report |
|---------------------------------------|--------|--------|--------|--------|
| Total Nitrogen | | | | |
| Total Phosphorus | 0.5 | 5.0 | 1 | 2 |
| DO (minimum) | 5.0 | N/A | N/A | N/A |
| <i>E. coli</i> , CFU or MPN/100 ml | 126 | N/A | N/A | 399 |

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

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.

| <u>Parameter</u> | <u>Monitoring Requirement</u> |
|--------------------|-------------------------------|
| Flow, MGD | Continuous |
| CBOD ₅ | Two/week |
| TSS | Two/week |
| NO ₃ -N | Two/week |
| NH ₃ -N | Two/week |
| Total P | Two/week |
| Total Nitrogen | Two/week |
| DO | Two/week |
| <i>E. coli</i> | Daily |

C. FINAL PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 4.0 million gallons per day (MGD); nor shall the average discharge during any two-hour period (2-hour peak) exceed 9028 gallons per minute (gpm).

| <u>Parameter</u> | <u>30-Day Average</u> | | <u>7-Day Average</u> | <u>Daily Maximum</u> |
|---------------------------------------|-----------------------|----------------|----------------------|----------------------|
| | <u>mg/l</u> | <u>lbs/day</u> | <u>mg/l</u> | <u>mg/l</u> |
| CBOD ₅ | 5 | 167 | 10 | 20 |
| TSS | 5 | 167 | 10 | 20 |
| NH ₃ -N | 2 | 67 | 5 | 10 |
| Nitrate-Nitrogen | 16.6 | 554 | N/A | 35.2 |
| Total Nitrogen | Report | Report | Report | Report |
| Total Phosphorus | 0.15 | 5 | 0.3 | 0.6 |
| DO (minimum) | 5.0 | N/A | N/A | N/A |
| <i>E. coli</i> , CFU or MPN/100 ml | 126 | N/A | N/A | 399 |

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

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.

| <u>Parameter</u> | <u>Monitoring Requirement</u> |
|--------------------|-------------------------------|
| Flow, MGD | Continuous |
| CBOD ₅ | Two/week |
| TSS | Two/week |
| NO ₃ -N | Two/week |
| NH ₃ -N | Two/week |
| Total P | Two/week |
| Total Nitrogen | Two/week |
| DO | Two/week |
| <i>E. coli</i> | Daily |

D. SEWAGE SLUDGE REQUIREMENTS

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal and Transportation. Sludge generated from the treatment facility is hauled by a registered transporter to Brushy Creek Regional Wastewater Treatment Facility, Permit No. WQ0010264002 to be digested, dewatered and then disposed of with the bulk of the sludge from the plant accepting the sludge. The draft permit also authorizes the disposal of sludge at a TCEQ authorized land application site or co-disposal landfill.

E. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 315 which references 40 Code of Federal Regulations (CFR) Part 403, "General Pretreatment Regulations for Existing and New Sources of Pollution," *rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798*. The permit includes specific requirements that establish responsibilities of local government, industry, and the public to implement the standards to control pollutants which pass through or interfere with treatment processes in publicly owned treatment works or which may contaminate the sewage sludge. This permit has appropriate pretreatment language for a facility of this size and complexity.

F. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

(1) The draft permit includes 7-day chronic freshwater biomonitoring requirements as follows. The permit requires five dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 31%, 41%, 55%, 74%, and 98%. The low-flow effluent concentration (critical dilution) is defined as 98% effluent.

- (a) Chronic static renewal 7-day survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing is once per quarter.
- (b) Chronic static renewal 7-day larval survival and growth test using the

fathead minnow (*Pimephales promelas*). The frequency of the testing is once per quarter.

- (2) The draft permit includes the following minimum 24-hour acute freshwater biomonitoring requirements at a frequency of once per six months:
 - (a) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*).
 - (b) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*).

G. BUFFER ZONE REQUIREMENTS

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).

H. SUMMARY OF CHANGES FROM APPLICATION

The applicant requested effluent limitations, based on a 30-day average, of 5 mg/l BOD₅, 5 mg/l TSS, 2 mg/l NH₃-N and 200 colonies of Fecal Coliform per 100 ml. However, effluent limitations in the Interim I and II phase of the draft permit, based on a 30-day average, are 5 mg/l CBOD₅, 5 mg/l TSS, 2 mg/l NH₃-N, 16.6 mg/l Nitrate-Nitrogen, Report mg/l Total Nitrogen, 0.5 mg/l Total Phosphorus, 126 CFU or MPN of *E. coli* per 100 ml and 5.0 mg/l minimum dissolved oxygen (DO). The effluent limitations in the Final phase of the draft permit, based on a 30-day average, are 5 mg/l CBOD₅, 5 mg/l TSS, 2 mg/l NH₃-N, 16.6 mg/l Nitrate-Nitrogen, Report mg/l Total Nitrogen, 0.15 mg/l Total Phosphorus, 126 CFU or MPN of *E. coli* per 100 ml and 5.0 mg/l minimum dissolved oxygen (DO).

I. SUMMARY OF CHANGES FROM EXISTING PERMIT

Effluent limitations and monitoring requirements in the draft permit remain the same as the existing permit requirements in the interim phases. More stringent effluent limitations are required in the draft permit's final phase than exist in the current permit. Effluent pH is 6.5 - 9.0 std. units. A Final phase with an annual average flow of 4.0 MGD was included in the draft permit. The Interim I phase in the existing permit is deleted since it is no longer applicable. The Interim III phase in the existing permit is deleted since it was not requested to be renewed.

The Standard Permit Conditions, Sludge Provisions, Other Requirements, and Biomonitoring sections of the draft permit have been updated.

The existing permit authorizes a daily average flow of 0.40 MGD in the Interim I and II phases, a daily average flow of 0.80 MGD in the Interim III phase and 1.2 MGD in the Final phase. The permittee is currently operating in the Interim II phase.

The effluent limitations in the Interim I phase of the existing permit, based on a

30-day average, are 5 mg/l CBOD₅, 5 mg/l TSS, 2 mg/l NH₃-N, 200 CFU or MPN of Fecal Coliform per 100 ml 126 CFU or MPN of *E. coli* per 100 ml, Report mg/l Nitrate-Nitrogen, Report mg/l Total Nitrogen, 0.5 mg/l Total Phosphorus and 5.0 mg/l minimum dissolved oxygen (DO). The permittee shall utilize an ultraviolet light (UV) system for disinfection purposes and shall not exceed a daily average 200 CFU or MPN of Fecal Coliform per 100 ml, 126 CFU or MPN of *E. coli* per 100 ml (180 days from the date of issuance).

The effluent limitations in the Interim II, III and Final phases of the existing permit, based on a 30-day average, are 5 mg/l CBOD₅, 5 mg/l TSS, 2 mg/l NH₃-N, 126 CFU or MPN of *E. coli* per 100 ml, 16.6 mg/l Nitrate-Nitrogen, Report mg/l Total Nitrogen, 0.5 mg/l Total Phosphorus and 5.0 mg/l minimum dissolved oxygen (DO). The permittee shall utilize an ultraviolet light (UV) system for disinfection purposes and shall not exceed a daily average 126 CFU or MPN of *E. coli* per 100 ml. Effluent pH in all phases is 6.0 -9.0 standard units.

8. DRAFT PERMIT RATIONALE

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated in Title 40 of the Code of Federal Regulations (CFR) require technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, and/or on best professional judgment (BPJ) in the absence of guidelines.

Effluent limitations for maximum and minimum pH are in accordance with 40 CFR § 133.102(c) and 30 TAC § 309.1(b).

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged to South Fork San Gabriel River in Segment No. 1250 of the Brazos River Basin. The designated uses for Segment No. 1250 are high aquatic life use, public water supply, aquifer protection and primary contact recreation. The effluent limitations in the draft permit will maintain and protect the existing instream uses. In accordance with 30 TAC § 307.5 and the TCEQ implementation procedures (June 2010) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in the South Fork San Gabriel River, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The discharge from this permit action is not expected to have an effect on

any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES, September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Segment No. 1250 is not currently listed on the State's inventory of impaired and threatened waters (the 2010 CWA §303(d) list).

The effluent limitations and conditions in the draft permit comply with the Texas Surface Water Quality Standards, 30 TAC §§ 307.1 - 307.10, effective August 17, 2000. These effluent limits comply with the requirements of the Edwards Aquifer Rule.

(2) CONVENTIONAL PARAMETERS

Effluent limitations for the conventional effluent parameters (i.e., Biochemical Oxygen Demand or Carbonaceous Biochemical Oxygen Demand, Ammonia Nitrogen, etc.) are based on stream standards and waste load allocations for water quality limited streams as established in the Texas Surface Water Quality Standards and the State of Texas Water Quality Management Plan (WQMP).

The effluent limitations in the draft permit have been reviewed for consistency with the WQMP. The proposed effluent limitations are not contained in the approved WQMP. However, these limits will be included in the next WQMP update. A Waste Load Evaluation has not been completed for the segment.

The effluent limitations in the draft permit meet the requirements for secondary treatment and the requirements for disinfection according to 30 TAC Chapter 309, Subchapter A: Domestic Wastewater Effluent Limitations.

(3) COASTAL MANAGEMENT PLAN

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

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

The Texas Surface Water Quality Standards (30 TAC Chapter 307) state that "surface waters will not be toxic to man, or to terrestrial or aquatic

life." The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards, June 2010" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

Water quality-based effluent limitations are calculated from freshwater aquatic life criteria found in Table 1 of the Texas Surface Water Quality Standards (30 TAC Chapter 307).

Acute freshwater criteria are applied at the edge of the zone of initial dilution (ZID) and chronic freshwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 20 feet upstream and 60 feet downstream from the point where the discharge enters South Fork San Gabriel River. The aquatic life mixing zone for this discharge is defined as 100 feet upstream and 300 feet downstream from the point where the discharge enters South Fork San Gabriel River.

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the final permitted flow of 4.0 MGD and the 7-day, 2-year (7Q2) flow of 0.14 cfs for South Fork San Gabriel River. The estimated dilution at the edge of the ZID is calculated using the final permitted flow of 4.0 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %: 99.44% Chronic Effluent %: 97.79%

Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged, when after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations

with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12). Assumptions used in deriving the effluent limitations include segment values for hardness, chlorides, pH and Total Suspended Solids (TSS) according to the segment-specific values contained in the TCEQ guidance document, "Procedures to Implement the Texas Surface Water Quality Standards, June 2010." The segment values are 170 mg/l CaCO₃ for hardness, 17 mg/l Chlorides, 7.7 standard units for pH, and 0.5 mg/l for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85% of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70% of the calculated daily average water quality-based effluent limitation.

(b) PERMIT ACTION

Analytical data reported in the application were screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data do not exceed 70% of the calculated daily average water quality-based effluent limitation for aquatic life protection.

(3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

(a) SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue and drinking water found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation and drinking water criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the final permitted flow of 4.0 MGD and the harmonic mean flow of 0.49 cfs for South Fork San Gabriel River. The following critical effluent percentage is being used:

Human Health Effluent %: 92.66%

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent

limitations for aquatic life protection. A 99th percentile confidence level in the long-term average calculation is used with only one long term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70% and 85% of the calculated daily average water quality-based effluent limitation.

(b) PERMIT ACTION

Reported analytical data do not exceed 70% of the calculated daily average water quality-based effluent limitation for human health protection.

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 1250, which receives the discharge from this facility, is designated as a public water supply. The screening procedure used to calculate water quality-based effluent limitations and determine the need for effluent limitations or monitoring requirements is identical to the procedure outlined in the aquatic organism bioaccumulation section of this fact sheet. Criteria used in the calculation of water quality-based effluent limitations for the protection of a drinking water supply are outlined in Table 2 (Water and Fish) of the Texas Surface Water Quality Standards (30 TAC Chapter 307). These criteria are developed from either drinking water maximum contaminant level (MCL) criteria outlined in 30 TAC Chapter 290 or from the combined human health effects of exposure to consumption of fish tissue and ingestion of drinking water.

(b) PERMIT ACTION

Criteria in the "Water and Fish" section of Table 2 do not distinguish if the criteria is based on a drinking water standard or the combined effects of ingestion of drinking water and fish tissue. Effluent limitations or monitoring requirements to protect the drinking water supply (and other human health effects) were previously calculated and outlined in the aquatic organism bioaccumulation criteria section of this fact sheet.

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

TCEQ has determined that there may be pollutants present in the effluent that may have the potential to cause toxic conditions in the receiving stream. Whole effluent biomonitoring is the most direct measure of potential toxicity that incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity.

REASONABLE POTENTIAL (RP) DETERMINATION

Biomonitoring requirements apply when the facility begins operation of a phase with an average permitted flow of 1 MGD or greater. The facility is currently operating in an interim phase with an average permitted flow of 0.4 MGD; therefore, there is no biomonitoring history for this facility.

The existing permit includes 7-day chronic freshwater biomonitoring requirements.

(b) PERMIT ACTION

The test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge. This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

No analytical data is available since the facility is currently operating in an interim phase with a daily average permitted flow of 0.4 MGD; therefore, there is no biomonitoring history for this facility

(6) WHOLE EFFLUENT TOXICITY CRITERIA (24 - HOUR ACUTE)

(a) SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring language.

(b) PERMIT ACTION

The draft permit includes 24-hour 100% acute biomonitoring tests for the life of the permit. Biomonitoring requirements apply when the facility begins operation of a phase with an average permitted flow of 1 MGD or greater. The facility is currently operating in an interim phase with a daily average permitted flow of 0.4 MGD; therefore, there is no biomonitoring history for this facility.

9. WATER QUALITY VARIANCE REQUESTS

No variance requests have been received.

10. PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application

and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application, and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application. This notice sets a deadline for public comment.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment, and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's Response to Comments and Final Decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's Response to Comments and Final Decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application contact Julian D. Centeno, Jr. at (512) 239-4608.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

City of Liberty Hill TPDES Permit No. WQ0014477001
Fact Sheet and Executive Director's Preliminary Decision

A. PERMIT(S)

TPDES Permit No. WQ0014477001 issued June 17, 2009.

B. APPLICATION

Application received February 11, 2013 and additional information received March 18, 2013, January 24, 2014, January 31, 2014, February 24, 2014, February 26, 2014 and March 11, 2014.

C. MEMORANDA

Interoffice memoranda from the Water Quality Assessment Section of the TCEQ Water Quality Division. Interoffice memorandum from the Storm Water & Pretreatment Team of the TCEQ Water Quality Division.

D. MISCELLANEOUS

Federal Clean Water Act, § 402; Texas Water Code § 26.027; 30 TAC Chapters 305, 309, 312, 319, 30; Commission policies; and EPA guidelines.

Texas Surface Water Quality Standards, 30 TAC §§ 307.1 - 307.10.

Procedures to Implement the Texas Surface Water Quality Standards (IP), Texas Commission on Environmental Quality, June 2010, as approved by EPA and the IP, January 2003, for portions of the 2010 IP not approved by EPA.

Texas 2010 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, August 25, 2010; approved by the EPA November 18, 2011.

TNRCC Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, Document No. 98-001.000-OWR-WQ, May 1998.

Interim Objection Letter from Claudia V. Hosch, Associate Director, Water Quality Protection Division, NPDES Permits and TMDL Branch, U.S. EPA Region 6, to Chris Linendoll, E.I.T., Section Manager, Wastewater Permitting Section, TCEQ, June 11, 2014.

Withdrawal of Objection Letter from Claudia V. Hosch, Associate Director, Water Quality Protection Division, NPDES Permits and TMDL Branch, U.S. EPA Region 6, to Chris Linendoll, E.I.T., Section Manager, Wastewater Permitting Section, TCEQ, July 22, 2014.

ATTACHMENT C



TPDES PERMIT NO. WQ0014477001
[For TCEQ office use only - EPA I.D.
No. TX0126195]

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

This amendment supersedes and
replaces TPDES Permit No.
WQ0014477001 issued June 17, 2009.

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

City of Liberty Hill

whose mailing address is

P.O. Box 1920
Liberty Hill, Texas 78642

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

located approximately 5,000 feet north of the South Fork San Gabriel River and 2,000 feet east of US Highway 183 in Williamson County, Texas 78641

to South Fork San Gabriel River in Segment No. 1250 of the Brazos River Basin

only according with 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, **December 1, 2018**.

ISSUED DATE:

For the Commission

INTERIM I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning upon the date of issuance and lasting through the completion of expansion of facility to 1.2 million gallons per day (MGD), the permittee is authorized to discharge subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.40 MGD; nor shall the average discharge during any two-hour period (2-hour peak) exceed 903 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 | Report Daily Avg. & Max. Single Grab Measurement Frequency | Sample Type |
| Flow, MGD | Report | N/A | Report | Five/week | Instantaneous |
| Carbonaceous Biochemical Oxygen Demand (5-day) | 5 (17) | 10 | 20 | One/week | Grab |
| Total Suspended Solids | 5 (17) | 10 | 20 | One/week | Grab |
| Ammonia Nitrogen | 2 (6.7) | 5 | 10 | One/week | Grab |
| Nitrate-Nitrogen | 16.6 (55) | N/A | 35.2 | One/week | Grab |
| Total Nitrogen | Report | Report | N/A | One/week | Grab |
| Total Phosphorus | 0.5 (1.7) | 1 | 2 | One/week | Grab |
| E. coli, CFU or MPN/100 ml | 126 | N/A | N/A | Five/week | Grab |

- 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.
- The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample.
- There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
- The effluent shall contain a minimum dissolved oxygen of 5.0 mg/l and shall be monitored once per week by grab sample.
- The annual average flow and maximum 2-hour peak flow shall be reported monthly.

INTERIM II EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the completion of expansion of facility to 1.2 million gallons per day (MGD) and lasting through the completion of expansion of facility to 4.0 MGD, the permittee is authorized to discharge subject to the following effluent limitations:

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The annual average flow of effluent shall not exceed 1.2 MGD; nor shall the average discharge during any two-hour period (2-hour peak) exceed 2,389 gallons per minute (gpm).

| Effluent Characteristic | Discharge Limitations | | Single Grab mg/l | Min. Self-Monitoring Requirements | |
|---|------------------------------|--------------------|---------------------|---|------------------|
| | Daily Avg. mg/l (lbs/day) | 7-day Avg. mg/l | | Report Daily Avg. & Daily Max. Measurement Frequency | Sample Type |
| Flow, MGD | Report | N/A | Report | Continuous | Totalizing Meter |
| Carbonaceous Biochemical Oxygen Demand (5-day) | 5 (50) | 10 | 30 | Two/week | Composite |
| Total Suspended Solids | 5 (50) | 10 | 30 | Two/week | Composite |
| Ammonia Nitrogen | 2 (20) | 5 | 15 | Two/week | Composite |
| Nitrate-Nitrogen | 16.6 (166) | N/A | 99.6 | Two/week | Composite |
| Total Nitrogen | Report (Report) | N/A | Report | Two/week | Composite |
| Total Phosphorus | 0.5 (5.0) | 1 | 3 | Two/week | Composite |
| <i>E. coli</i> , CFU or MPN/100 ml | 126 | N/A | 399 | Daily | Grab |

- 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.
- The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample.
- There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
- The effluent shall contain a minimum dissolved oxygen of 5.0 mg/l and shall be monitored twice per week by grab sample.
- The annual average flow and maximum 2-hour peak flow shall be reported monthly.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the completion of expansion of facility to 4.0 million gallons per day (MGD) and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 4.0 MGD; nor shall the average discharge during any two-hour period (2-hour peak) exceed 9,028 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 | Report Daily Avg. & Daily Max. Measurement Frequency | Sample Type |
| Flow, MGD | Report | N/A | Report | Continuous | Totalizing Meter |
| Carbonaceous Biochemical Oxygen Demand (5-day) | 5 (167) | 10 | 20 | Two/week | Composite |
| Total Suspended Solids | 5 (167) | 10 | 20 | Two/week | Composite |
| Ammonia Nitrogen | 2 (67) | 5 | 10 | Two/week | Composite |
| Nitrate-Nitrogen | 16.6 (554) | N/A | 35.2 | Two/week | Composite |
| Total Nitrogen | Report (Report) | N/A | Report | Two/week | Composite |
| Total Phosphorus | 0.15 (5.0) | 0.3 | 0.6 | Two/week | Composite |
| E. coli, CFU or MPN/100 ml | 126 | N/A | 399 | 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 6.5 standard units nor greater than 9.0 standard units and shall be monitored once 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 5.0 mg/l and shall be monitored twice per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

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 n th 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. Monitoring results must be reported on an approved self-report form that is 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. 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. 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 Publicly Owned Treatment Works (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 TWCS§ 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.

- 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 149) 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 or co-disposal landfill. **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 sludge. This provision does not authorize land application of Class A 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 I 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 11) 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 11) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year.

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

| <u>Pollutant</u> | <u>Ceiling Concentration</u> (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 shall be treated by one of the following methods to ensure that the sludge meets either the Class A or Class B pathogen requirements.

- a. Six alternatives are available to demonstrate compliance with Class A sewage sludge. The first 4 options require either the density of fecal coliform in the sewage sludge be less than 1000 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. Below are the additional requirements necessary to meet the definition of a Class A sludge.

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 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.

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of shall 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 shall 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. 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 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 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 I phase and annually in the Interim II and Final phases |
| PCBs | - once during the term of this permit in the Interim I 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):

| <u>Amount of sewage sludge (*) metric tons per 365-day period</u> | <u>Monitoring Frequency</u> |
|---|-----------------------------|
| 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 weight basis).*

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

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE FOR APPLICATION TO THE LAND MEETING CLASS A 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 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

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

Table 3

| <u>Pollutant</u> | <u>Monthly Average Concentration (milligrams per kilogram)*</u> |
|------------------|---|
| 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 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 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 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 11) and Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30 of each year the following information:

1. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.
2. The frequency of monitoring listed in Section I.C. that applies to the permittee.
3. Toxicity Characteristic Leaching Procedure (TCLP) results.
4. Identity of hauler(s) and TCEQ transporter number.
5. PCB concentration in sludge in mg/kg.
6. Date(s) of disposal.
7. Owner of disposal site(s).
8. Texas Commission on Environmental Quality registration number, if applicable.
9. Amount of sludge disposal dry weight (lbs/acre) at each disposal site.
10. 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.
11. Level of pathogen reduction achieved (Class A or Class B).
12. 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.
13. Vector attraction reduction alternative used as listed in Section I.B.4.
14. Annual sludge production in dry tons/year.
15. Amount of sludge land applied in dry tons/year.
16. 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.
17. 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 I 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 11) 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 11) and the Water Quality 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 11) and Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year the following information:

1. Toxicity Characteristic Leaching Procedure (TCLP) results.
2. Annual sludge production in dry tons/year.
3. Amount of sludge disposed in a municipal solid waste landfill in dry tons/year.
4. Amount of sludge transported interstate in dry tons/year.
5. 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.
6. Identity of hauler(s) and transporter registration number.
7. Owner of disposal site(s).
8. Location of disposal site(s).
9. 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.

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 and B in the Interim II and Final phases facility must be operated by a chief operator or an operator holding a Category C in the Interim I phase and B in the Interim II and Final phases 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 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 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. 1250 of the Brazos River Basin and any subsequent updating of the water quality model for Segment No. 1250, in order 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.
5. 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).
6. The permittee shall provide facilities for the protection of its wastewater treatment facilities from a 100-year flood.
7. 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 I phase and daily may be reduced to 5/week in the Interim II phase and 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.

8. Prior to construction of the treatment Interim II and the Final phase facilities, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary transmittal letter in accordance with the requirements in 30 TAC Section 217.6(c). 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. The permittee shall clearly show how the treatment system will meet the permitted effluent limitations required on Pages 2a and 2b of the permit.
9. The permittee shall notify the TCEQ Regional Office (MC Region 11) 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 new Interim II and Final phase facilities on Notification of Completion Form 20007.
10. The permittee is also authorized to haul sludge from the wastewater treatment facility, by a licensed hauler, to the Brushy Creek Regional Wastewater Treatment Facility, TPDES Permit No. WQ0010264002, or any other facility authorized by the TCEQ to accept sludge for final treatment processing and disposal.

The permittee shall keep records of all sludge removed from the wastewater treatment plant site and these records shall include the following information:

- a. the volume of sludge hauled;
- b. the date(s) that sludge was hauled;
- c. the identity of haulers; and
- d. the permittee, TCEQ permit number, and location of the wastewater treatment plant to which the sludge is hauled.

These records shall be maintained on a monthly basis and shall be reported to the TCEQ Regional Office (MC Region 11) and the TCEQ Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 1 of each year.

11. A certified operator shall inspect the facility daily and maintain at the plant site a record of these inspections. These records shall be available at the plant site for inspection by authorized representatives of the commission for at least three years. During this daily inspection the proper operation and maintenance of the batch reactors, the chemical addition system for phosphorus removal and the disinfection system shall be checked for compliance with the ammonia-nitrogen, nitrate-nitrogen, total phosphorus and *E. coli* bacteria effluent limits.

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 flashpoint of less than 140 degrees Fahrenheit (60 degrees 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 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., 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 degrees Fahrenheit (40 degrees 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.

Revised July 2007

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 60 days of initial discharge of the 1.2 MGD facility, the permittee shall conduct the following toxicity tests utilizing the test organisms, procedures and quality assurance requirements specified in this Part of the 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 comes 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 herein defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit. All test results, valid or invalid, must be submitted as described below.

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These additional effluent concentrations are 31%, 41%, 55%, 74%, and 98% effluent. The critical dilution, defined as 98% 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, Chemical-Specific (CS) effluent limits, a Best Management Practice (BMP), or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation 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 the permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant toxicity, the permittee will resume a quarterly testing frequency for that species until the 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 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;
 - 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 Fisher's Exact Test as described in the manual referenced above, or its most recent update.
 - 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 above, or its most recent update.

- 3) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The EPA manual, "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 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 herein defined as a statistically significant difference at the 95% confidence level between the survival, reproduction, or growth of the test organism(s) in a specified effluent dilution compared to the survival, reproduction, or growth of the test organism(s) 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 above.
- 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 above-referenced guidance manual will be used when making a determination of test acceptability.
- 8) Staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

- 1) Dilution water used in the toxicity tests shall be the receiving water collected at a point upstream of the discharge 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) utilize 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 item 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 item 2.a;
 - b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days);
 - c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3 of this Section.
- 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 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 numbers 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 any Part of 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 above, or its most recent update, 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. A significant effect is defined as a statistically significant difference, at the 95% confidence level, between a specified endpoint (survival, growth, or reproduction) of the test organism in a specified effluent dilution when compared to the specified endpoint of the test organism in the control. Significant lethality is defined as a statistically significant difference in survival at the critical dilution when compared to the survival in the control. 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 item 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of item 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 item 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in item 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 Toxicity Reduction Evaluation (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 analysis 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 item 1.b. As 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 specific pollutant(s) and source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant(s) and source(s) 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, as well as 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.
- e. Within 30 days of submittal of the TRE Action Plan and Schedule, the permittee shall implement the TRE with due diligence.
- 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(s) 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(s) of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data which 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.

Copies of the TRE Activities Report shall also be submitted to the U.S. EPA Region 6 office.

- 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 (herein as defined below) 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. The permittee may only apply the "cessation of lethality" provision once.

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 herein defined as proactive efforts which 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 their pursuit of the TIE/TRE and must prove that circumstances beyond their control stalled the TIE/TRE. The report shall provide information pertaining to the specific control mechanism(s) selected that will, when implemented, result in reduction of effluent toxicity to no significant lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism(s). A copy of the TRE Final Report shall also be submitted to the U.S. EPA Region 6 office.
- h. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, to require a compliance schedule for implementation of corrective actions, to specify a WET limit, to specify a BMP, and to specify CS limits.

TABLE 1 (SHEET 1 OF 4)

BIOMONITORING REPORTING

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Dates and Times Composites Collected

No. 1 FROM: _____ Date Time _____ TO: _____ Date Time _____

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% | 31% | 41% | 55% | 74% | 98% |
| 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 (98%): _____ YES _____ NO

PERCENT SURVIVAL

| Time of Reading | Percent effluent | | | | | |
|-----------------|------------------|-----|-----|-----|-----|-----|
| | 0% | 31% | 41% | 55% | 74% | 98% |
| 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 (98%): _____ 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

No. 1 FROM: _____ Date Time _____ TO: _____ Date Time _____

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% | | | | | | | |
| 31% | | | | | | | |
| 41% | | | | | | | |
| 55% | | | | | | | |
| 74% | | | | | | | |
| 98% | | | | | | | |
| PMSD | | | | | | | |

* Coefficient of Variation = standard deviation x 100/mean

- 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 (98%): _____ 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% | | | | | | | | | |
| 31% | | | | | | | | | |
| 41% | | | | | | | | | |
| 55% | | | | | | | | | |
| 74% | | | | | | | | | |
| 98% | | | | | | | | | |

* 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 (98%): _____ 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 the Surface Water Quality Standard, 30 TAC §307.6(e)(2)(B), of greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.
- b. Within 60 days of initial discharge of the 1.2 MGD facility, the toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests utilizing 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 in 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 in 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 herein 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. 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.

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 consist of standard, synthetic, moderately hard, reconstituted water.

c. Samples and Composites

- 1) The permittee shall collect one composite sample from Outfall 001.
- 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 discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. 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 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 samples shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in any Part of 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 above, or its most recent update thereof, 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 January 20th and July 20th for biomonitoring conducted during the previous 6 month period.
 - 2) Quarterly biomonitoring test results are due on or before January 20th, April 20th, July 20th, and October 20th, for biomonitoring conducted during the previous calendar quarter.
- c. Enter the following codes on 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, here defined as a mean mortality of 50% or greater to organisms exposed to the 100% effluent concentration after 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 additional 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 item 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5 of this Section.

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 Toxicity Reduction Evaluation (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 analysis 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 item 1.b. As 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(s) and source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant(s) and source(s) 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, as well as 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 with due diligence.
- 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(s) 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(s) of effluent toxicity;
- 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
- 5) any data which 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.

Copies of the TRE Activities Report shall also be submitted to the U.S. EPA Region 6 office.

- 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 (herein as defined below) 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. The permittee may only apply the "cessation of lethality" provision once.

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 herein defined as proactive efforts which 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 their pursuit of the TIE/TRE and must prove that circumstances beyond their control stalled

the TIE/TRE. The report shall specify the control mechanism(s) that will, when implemented, reduce effluent toxicity as specified in item 5.g. The report will also specify a corrective action schedule for implementing the selected control mechanism(s). 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 their pursuit of the TIE/TRE and must prove that circumstances beyond their control stalled the TIE/TRE.

The requirement to comply with 30 TAC §307.6(e)(2)(B) may be exempted upon proof 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, the 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, to require a compliance schedule for implementation of corrective actions, to specify a WET limit, to specify a BMP, and to specify a CS limit.

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

ATTACHMENT D

TCEQ INTRAAGENCY TRANSMITTAL MEMO

DATE: October 2, 2014

TO: FINAL DOCUMENTS TEAM LEADER
OFFICE OF THE CHIEF CLERK
BUILDING F, MC-105

FROM: STEFANIE SKOGEN
ENVIRONMENTAL LAW DIVISION
BUILDING A, MC-173

Attached: Executive Director's Response to Comment

Application Information:

Program Area (Air, Water, or Waste): **Water**

Permit No. **WQ0014477001**

Name: **City of Liberty Hill**

CID Item #: **86762**

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY
2014 OCT -2 AM 9:07
CHIEF CLERKS OFFICE

OCC Action Required (check applicable boxes)

Date stamp and return copy to above-noted ELD Staff Attorney and

FOR ALL PROGRAM AREAS: (required only when changes needed to official agency mailing list)

- Update the mailing list in your file with the attached contact names and addresses.
Include corrected or additional names and addresses for mailing list.

FOR WASTE & WATER:

- Send Response to Comments Letter which solicits hearing requests and requests for reconsideration to the mailing list in your files.

For Waste and Water, this would occur in all circumstances when comments have been received for 801 applications.

Or

- Send Response to Comments Letter and Motion to Overturn Letter which solicits motions to overturn to the mailing list in your files.

For Waste and Water this may occur when all comments have been withdrawn for 801 applications or when comments are received for applications that will not be set for agenda.

FOR AIR (NSR only):

- Send RTC with response to comments letter which solicits contested case hearing requests and requests for reconsideration to the mailing list in your files.

For Air NSR applications, this would occur only when there are pending contested case hearing requests (except no-increase renewals).

- Set for commission agenda and send RTC with agenda setting letter.

This would occur when there are pending contested case hearing requests on a no-increase renewal and technical review is complete.

- Hold until a commission agenda date is requested and then send RTC with the Agenda Setting Letter.

For Air applications, this would occur when there are pending hearing requests on a no-increase renewal; but technical review is NOT complete.

If this box is checked, ED staff must call the OCC Agenda Team Leader to arrange a specific agenda date.

- Place RTC in File - no further action required by OCC.

For Air NSR applications, this would occur when the matter is uncontested but comments were received, APD will send a copy with MTO letter.

- Other Instructions:

TPDES Permit No. WQ0014477001

APPLICATION BY THE CITY OF LIBERTY §
HILL FOR A MAJOR AMENDMENT AND §
RENEWAL OF TEXAS POLLUTANT §
DISCHARGE ELIMINATION SYSTEM §
(TPDES) PERMIT NO. WQ0014477001 §

BEFORE THE TEXAS §
COMMISSION ON §
ENVIRONMENTAL QUALITY §

CHIEF CLERK'S OFFICE

OCT - 2 2014

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director (ED) of the Texas Commission on Environmental Quality (Commission or TCEQ) files this Response to Public Comment on the City of Liberty Hill's application for a major amendment and renewal of TPDES Permit No. WQ0014477001 and the ED's preliminary decision. As required by title 30, section 55.156 of the Texas Administrative Code, before a permit is issued, the ED prepares a response to all timely, relevant, and material, or significant, comments. The Office of the Chief Clerk timely received comment letters from Sally and Wendell Barrick, Jackson Cassady, Sharon Cassady, Terry Cassady, P.E., the City of Leander, Laura Cutrer, Torrias Heads, Mary Jo Humphreys, Tim Humphreys, and Audrey and Dean Swearingen. Also, at a public meeting held on August 7, 2014, the TCEQ received oral comments from Casey Callahan, Sharon and Terry Cassady, Sue Couchman, Stephanie Morris, Jeff Ulmann, and Terry Vance and a written comment from Terry Cassady. This response addresses all such timely public comments received, whether or not withdrawn. For more information about this permit application or the wastewater permitting process, please call the TCEQ Public Education Program at 1-800-687-4040. General information about the TCEQ can be found on the TCEQ web site at www.tceq.texas.gov.

I. BACKGROUND

A. Facility Description

Liberty Hill has applied to the TCEQ for a major amendment and renewal of TPDES Permit No. WQ0014477001 to authorize an increase in the discharge of treated domestic wastewater effluent from an annual average flow not to exceed 1.2 million gallons per day (MGD) to an annual average flow not to exceed 4.0 MGD. The Liberty Hill Regional Wastewater Treatment Facility is an activated sludge process plant operated in the extended aeration mode. Treatment units in the Interim I phase include a bar screen, post-equalization basin, aerobic sludge digester, ultraviolet disinfection system, step aeration system, chemical addition for phosphorus removal, effluent rotating disc filters, and sequencing batch reactors. The sizes of the Interim II and Final phase sequencing batch reactors and digester units would be identical to their sizes in the Interim I phase. The filters and ultraviolet disinfection system are already sized for the Final phase. The facility is currently operating in the Interim I phase. The Interim II

and Final phase facilities have not been constructed.

Effluent limits in all phases of the proposed permit, based on a thirty-day average, are 5 milligrams per liter (mg/L) carbonaceous biochemical oxygen demand (five-day), 5 mg/L total suspended solids, 2 mg/L ammonia nitrogen, 16.6 mg/L nitrate-nitrogen, report total nitrogen, 126 colony-forming units or most probable number of *E. coli* per 100 milliliters, and 5 mg/L minimum dissolved oxygen. The total phosphorus limit, based on a thirty-day average, is 0.5 mg/L in the Interim I and II phases and 0.15 mg/L in the Final phase. The permittee shall use an ultraviolet disinfection system for disinfection purposes.

The wastewater treatment facility is located approximately 5,000 feet north of the South Fork San Gabriel River and 2,000 feet east of U.S. Highway 183 in Williamson County, Texas 78641. The treated effluent is discharged to the South Fork San Gabriel River in Segment No. 1250 of the Brazos River Basin. The designated uses for Segment No. 1250 are high aquatic life use, public water supply, aquifer protection, and primary contact recreation.

B. Procedural Background

The TCEQ received the application on February 11, 2013, and declared it administratively complete on March 21, 2013. The first Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) was published on April 3, 2013. ED staff completed the technical review of the application on March 21, 2014, and prepared a draft permit. The first Notice of Application and Preliminary Decision for a Water Quality Permit (NAPD) was published on May 15, 2014. Due to issues with the first NORI and NAPD, a combined NORI/NAPD/Notice of Public Meeting was published on July 6, 2014, in *The Williamson County Sun*. A public meeting was held on August 7, 2014, which was also the date the public comment period ended. This application was administratively complete on or after September 1, 1999. Therefore, it is subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

C. Access to Rules, Statutes, and Records

- Secretary of State web site for all Texas administrative rules: www.sos.state.tx.us.
- TCEQ rules in title 30 of the Texas Administrative Code: www.sos.state.tx.us/tac (select "View the current *Texas Administrative Code*" on the right, then "Title 30 Environmental Quality").
- Texas statutes: www.statutes.legis.state.tx.us.
- TCEQ web site: www.tceq.texas.gov (for downloadable rules in Adobe portable document format, select "Rules," then "Download TCEQ Rules").
- Federal rules in title 40 of the Code of Federal Regulations: www2.epa.gov/laws-regulations/regulations#find.
- Federal environmental laws: www2.epa.gov/laws-regulations.

Commission records for this application are available for viewing and copying at

the TCEQ's main office in Austin, 12100 Park 35 Circle, Building F, First Floor (Office of the Chief Clerk), until the TCEQ takes final action. The public viewing and copying location for the application, proposed permit, and Fact Sheet and ED's Preliminary Decision for this facility is the Georgetown Public Library, 402 West Eighth Street, Georgetown, Texas.

If you would like to file a complaint about the facility concerning its compliance with provisions of its permit or TCEQ rules, you may call the TCEQ Environmental Complaints Hot Line at 1-888-777-3186 or the TCEQ Region 11 Office directly at 1-512-339-2929. Citizen complaints may also be filed by sending an e-mail to complaint@tceq.texas.gov or online at the TCEQ web site (select "Reporting," then "Make an Environmental Complaint"). If the facility is found to be out of compliance, it may be subject to enforcement action.

II. COMMENTS AND RESPONSES

Comment 1

Sharon Cassady commented that the South San Gabriel River has become a sludge and muck-covered cesspool, with bubbles of methane gas that rise if you step into the green slime, and has gotten worse since December 2012. Mary Jo Humphreys commented that there is green algae growing everywhere in the river below the discharge point and that the river was pristine when she moved to the area in 1993. Tim Humphreys commented that the river upstream of the discharge point should be compared with the nasty mess that is downstream of the discharge point. Audrey Swearingen stated that algae sinks to the riverbed and forms a gooey mess that smells like rotten eggs, while the surface is covered with a thick green scum. Audrey and Dean Swearingen made a similar statement in a later comment. Audrey Swearingen stated that Google Earth shows that the river turns green at the discharge point and that when heavy rainfall washed out the scum and slime in early October 2013, the river was scummy and smelly again less than a week later. Laura Cutrer stated that the river stinks and has green slime and that fish are dying. Terry Cassady commented that the river's surface is covered in algae and that the bottom is covered with two to three inches of anaerobically decaying organic matter. Sue Couchman commented that aerial photographs show that the algae growth began after the plant began discharging and that the algae has only gone away when there was a huge flood.

Response 1

The conditions in the South San Gabriel River described by the commenters can be caused by nutrient enrichment from phosphorus in the treated effluent being discharged to this receiving stream. On July 30, 2013, the TCEQ issued an agreed order in TCEQ Docket No. 2013-0010-MWD-E through the Enforcement Division to address issues in which Liberty Hill was not in compliance with some of the effluent limits in its discharge permit. Since the order was issued, Liberty Hill has hired new staff to run the wastewater treatment plant, resulting in improved plant performance and effluent

quality. TCEQ staff visited the receiving stream at the outfall on May 14, 2013, prior to the hiring of the new wastewater treatment plant staff, and observed thick algal growth immediately downstream of the outfall. TCEQ staff revisited the location on August 7, 2014, after the new staff was hired to run the wastewater treatment plant, and noticed a marked improvement and reduced levels of algae in the receiving stream at the outfall and downstream. The stream's condition is corroborated by the recently observed trend in the facility's effluent quality monitoring data, which indicates not only compliance with the permit effluent limits, but less variability in effluent quality. The proposed permit aims to further control the effluent variability by adding daily inspection requirements to ensure more uniform effluent quality while meeting permit limits.

Central Texas has been experiencing an extended drought, which has resulted in below-average stream flows and reduced dilution of the treated effluent in the receiving stream. This may have contributed to the algal growth. The receiving stream is highly vulnerable to additions of phosphorus, which is the nutrient of concern in fresh waters. It is difficult to determine what effects minor changes to nutrient additions may have on a receiving stream with scientific precision due to constantly changing conditions in the stream. To assess the effectiveness of the permit's effluent limits to protect the river's water quality, TCEQ staff will perform routine biological, chemical, and habitat monitoring of the river at the outfall and, if necessary, take appropriate action to ensure that the Texas Surface Water Quality Standards are not violated.

To address unwanted effects to the receiving stream, the existing permit has a total phosphorus limit of 0.5 mg/L, which will remain in effect during the Interim I and II phases of the proposed permit. With the permit amendment request for additional flow, the TCEQ had concerns that an additional loading of phosphorus to the receiving stream may cause excessive algal growth or otherwise result in unwanted effects on the stream. To address these concerns, the TCEQ imposed a very stringent permit limit of 0.15 mg/L for total phosphorus in the Final phase of the proposed permit to greatly reduce the concentration of phosphorus in the effluent and reduce the likelihood of excessive algal growth in the receiving stream.

Comment 2

Sharon Cassady asked who is regulating Liberty Hill's present treatment and noted that Liberty Hill was found to be in violation of its permit in December 2012. Terry Cassady asked why Liberty Hill had not been fined for its ten exceedances of its ammonia nitrogen limit that occurred between June 2012 and May 2013. Mary Jo Humphreys commented that Liberty Hill should be required to take corrective action to fix the pollution problem, as Liberty Hill has destroyed portions of the river. She also asked for help fixing the problems that already exist. Tim Humphreys also commented that the river needs to be cleaned up. Audrey Swearingen stated that Liberty Hill's plant has never been operated properly and that the river has become increasingly polluted. She pointed out that the river has gotten worse since the TCEQ issued Liberty Hill an agreed order in TCEQ Docket No. 2013-0010-MWD-E for effluent violations. Sally and Wendell Barrick stated that they live on the river south of the discharge point and that Liberty Hill needs to clean up its current discharge before being permitted to discharge a

larger flow. Terry Cassady and Audrey and Dean Swearingen wondered why the TCEQ would allow Liberty Hill to increase its permitted discharge volume when the existing discharge is not meeting state criteria.

Response 2

The TCEQ Office of Compliance and Enforcement oversees permittees to ensure compliance with TCEQ permits and applicable state and federal regulations. The TCEQ enforcement process begins when a violation is discovered either during an inspection conducted at the regulated entity's location or through a records review at the TCEQ central office. Due to this oversight, the TCEQ Enforcement Division issued a notice of enforcement on December 13, 2012, regarding the August and September 2012 ammonia nitrogen violations. In response to the notice of enforcement, a formal administrative order (Docket No. 2013-0010-MWD-E), which also cited the June 2012 ammonia nitrogen and total phosphorus violations and August and September 2012 *E. coli* violations, was issued on July 30, 2013. The total administrative penalty was \$7,500. Additionally, the order included a technical requirement for the permittee to come into compliance with the effluent limits within 90 days from the effective date of the order. Liberty Hill met this requirement.

The proposed permit's purpose is to regulate the discharge of treated effluent so the river's water quality and uses are protected. While the proposed permit contains effluent limits and other requirements that seek to prevent the degradation of the river's water quality, requiring a cleanup of the river is beyond the permit's scope. However, the permit does not limit an affected person's ability to seek legal remedies against Liberty Hill regarding any potential trespass, nuisance, or other cause of action in response to activities that may result in injury to human health or property or that interfere with the normal use and enjoyment of property.

The recently observed trend in the Liberty Hill facility's effluent quality monitoring data is towards less variability and staying within the existing permit's effluent limits. The proposed permit aims to further control the effluent quality variability and thus result in a more uniform effluent quality while meeting the permit's effluent limits.

Comment 3

Sharon Cassady commented that her access to the river from her land has been impacted due to the river's slime-covered condition and that her grandchildren cannot play in the river as she had intended them to when she bought her property.

Response 3

The TCEQ's jurisdiction over the permitting process is established by the Texas Legislature and is limited to controlling the discharge of pollutants into and protecting the quality of water in the state. Pursuant to title 30, chapter 309, subchapter B of the

Texas Administrative Code, the TCEQ has the authority to condition the issuance of a wastewater discharge permit on the selection of a site that minimizes impacts on surface water. As discussed in other responses in this document, the proposed permit is designed to be protective of surface water based on TCEQ requirements and ED staff's observations of the river. Any use of neighboring properties should not be further impacted by the discharged effluent if Liberty Hill operates its facility in accordance with TCEQ rules and the proposed permit.

The proposed permit would not limit anyone's ability to seek legal remedies from Liberty Hill regarding any potential trespass, nuisance, or other cause of action in response to the facility's activities that may result in injury to human health or property or interfere with the normal use and enjoyment of property. Furthermore, if members of the public experience nuisance conditions from the facility, they may use the contact information listed in section I.C. to notify the TCEQ of any problems. If the TCEQ found that the facility was out of compliance with applicable laws or the proposed permit, the facility may be subject to enforcement action. The TCEQ's periodic facility inspections and review of Liberty Hill's annual reports also help to identify potential violations.

Comment 4

Terry Cassady commented that the existing permit is insufficient because the river's quality has deteriorated since the plant first started operating. He assumed that the problem is the permit and not compliance with the permit, as the TCEQ has issued only one fine for a permit violation, which occurred in late 2013. He expressed concern that the proposed permit contains the same requirements as the existing permit, which have proven to be insufficient, and asked whether actual field data should be used when setting effluent limits. He also asked for the TCEQ's opinion regarding what is causing the algal growth if the TCEQ believes it is not the amount of ammonia nitrogen and phosphorus in the effluent, as Liberty Hill has been meeting its permit limits for those pollutants for the most part. Based on the assumption the effluent is degrading the river's water quality with its existing effluent limits and relatively low flow (200,000 gallons per day), he thought it would be correct to assume that the river's water quality would continue to degrade at higher flows because the total amount of nitrogen and phosphorus discharged would be higher. Sharon Cassady commented that the river's condition should dictate the permit's terms, not the numbers.

Response 4

TCEQ staff visited the receiving stream at the outfall on May 14, 2013, and observed thick algal growth immediately downstream of the outfall. TCEQ staff revisited the location on August 7, 2014, and noticed a marked improvement and reduced levels of algae immediately downstream of the outfall since Liberty Hill hired new staff to run the wastewater treatment plant following the permit violations referenced by Mr. Cassady. These in-stream observations are corroborated by a recently observed trend in the facility's effluent quality monitoring data, which indicates not only compliance with the permit effluent limits, but less variability in effluent quality. The proposed permit aims to further control the effluent variability by adding daily inspection requirements

to ensure a more uniform effluent quality while meeting permit effluent limits.

Central Texas has been experiencing an extended drought, which has resulted in below-average stream flows and reduced dilution of the treated effluent in the receiving stream. This may have contributed to the algal growth. The receiving stream is highly vulnerable to additions of phosphorus, which is the nutrient of concern in fresh waters. It is difficult to determine what effects minor changes to nutrient additions may have on a receiving stream with scientific precision due to constantly changing conditions in the stream. To assess the effectiveness of the permit effluent limits to protect the river's water quality, TCEQ staff will perform routine biological, chemical, and habitat monitoring of the river at the outfall and, if necessary, take appropriate action to ensure that the Texas Surface Water Quality Standards are not violated.

To address unwanted effects to the receiving stream, the existing permit has a total phosphorus limit of 0.5 mg/L, which would remain in effect during the Interim I and II phases of the proposed permit. With the permit amendment request for additional flow, the TCEQ had concerns that an additional loading of phosphorus to the receiving stream may cause excessive algal growth or otherwise result in unwanted effects on the stream. To address these concerns, the TCEQ imposed a very stringent permit limit of 0.15 mg/L for total phosphorus in the Final phase of the proposed permit to greatly reduce the concentration of phosphorus in the effluent and reduce the likelihood of excessive algal growth in the receiving stream.

The ammonia nitrogen limits in Liberty Hill's existing and proposed permits are there to ensure that dissolved oxygen levels in the river will be maintained above the Texas Surface Water Quality Standards minimum dissolved oxygen criterion for the segment. ED staff's dissolved oxygen modeling analysis evaluated the predicted direct impact on dissolved oxygen levels in the river by ammonia nitrogen, and other oxygen-demanding constituents, in the effluent. The ammonia nitrogen limits are not in the permits to control algal growth.

Comment 5

Terry Cassady recommended that the TCEQ require Liberty Hill to conduct an environmental study to determine the best parameters for the proposed permit, which would include the river's characteristics, the river's ability to assimilate various waste components, and the proposed treatment processes' reliability.

Response 5

An environmental study was required as a permit condition in a previous permit for this facility and was performed by the permit holders at the time, the Lower Colorado River Authority and Brazos River Authority, in 2006 and 2007. The study results indicated that levels of total phosphorus increased below the outfall but failed to elicit meaningful information regarding river characteristics, such as increases in algae coverage. Going forward, to assess the effectiveness of the permit effluent limits to protect the river's water quality, TCEQ staff will perform routine biological, chemical,

and habitat monitoring of the river at the outfall and, if necessary, take appropriate action to ensure that the Texas Surface Water Quality Standards are not violated.

Looking specifically at the facility's treatment processes, ED staff does not believe that an environmental study would shed any additional light on the proposed treatment process's reliability. The existing and proposed treatment process, the sequencing batch reactor, is one of the many variations of the activated sludge process used for wastewater treatment. The activated sludge process is the most frequently used biological wastewater treatment process for treating domestic wastewater, and the use of sequencing batch reactors has been well established since the late 1970s. The design criteria for activated sludge systems and sequencing batch reactors are available in title 30, chapter 217, subchapter F of the Texas Administrative Code.

Comment 6

Sharon Cassady commented that they can no longer fish or swim in the river. Torrias Heads has a spouse, and they want to be able to take their children and grandchildren to fish and play in the river like they did when they were younger. Torrias Heads does not want to have to worry about whether the river is clean and safe enough to use it. People need the river to be as close to natural as possible. Changing the river's ecosystem changes people's lives and the surrounding community. Mary Jo Humphreys commented that the river is full of coliform, and she is concerned about the potential for bacteria to make her children, grandchildren, and pets sick. Terry Cassady commented that no one would think of swimming in the river.

Response 6

As part of the permit application process, the TCEQ determines the uses of the receiving waters and establishes effluent limits that are protective of those uses. As stated above, the designated uses for Segment No. 1250 (South Fork San Gabriel River) are primary contact recreation, public water supply, aquifer protection, and high aquatic life use. The effluent limits and monitoring requirements in the proposed permit are designed to protect and maintain the river's existing uses. ED staff took Liberty Hill's proposed flow of 4.0 MGD into consideration when screening the discharge for compliance with the Texas Surface Water Quality Standards. Based on the results of the screening process, treated effluent discharged in accordance with the requirements of the proposed permit would be protective of the surface water uses. The TCEQ also performed Tier 1 and Tier 2 antidegradation reviews in accordance with the Texas Surface Water Quality Standards and the *Procedures to Implement the Texas Surface Water Quality Standards* (2010). This review resulted in the inclusion of effluent limits in the proposed permit intended to prevent the river's degradation.

Regarding the river's recreational use, the proposed permit has effluent limits for *E. coli* that require Liberty Hill to disinfect the treated wastewater in a manner that will maintain the primary contact recreation use of the river. Additionally, stringent permit limits for total phosphorus have been included in the proposed permit to help prevent excessive algal growth in the river. As discussed in Response 2, the agreed order issued

on July 30, 2013, addressed issues in which Liberty Hill was not in compliance with some of its permit's effluent limits, including two violations of its *E. coli* single grab limit. Since the order was issued, Liberty Hill hired new staff to run the wastewater treatment plant, resulting in improved plant performance and effluent quality. TCEQ staff visited the receiving stream at the outfall on May 14, 2013, prior to the hiring of the new wastewater treatment plant staff, and observed thick algal growth immediately downstream of the outfall. TCEQ staff revisited the location on August 7, 2014, after the new staff was hired to run the wastewater treatment plant, and noticed a marked improvement and reduced levels of algae in the receiving stream at the outfall and downstream. The stream's condition is corroborated by the recently observed trend in the facility's effluent quality monitoring data, which indicates not only compliance with the permit effluent limits, but less variability in effluent quality. The proposed permit aims to further control the effluent variability by adding daily inspection requirements to ensure more uniform effluent quality while meeting permit limits. To assess the effectiveness of the permit effluent limits to protect the river's water quality, TCEQ staff will perform routine biological, chemical, and habitat monitoring of the river at the outfall and, if necessary, take appropriate action to ensure that the Texas Surface Water Quality Standards are not violated.

Comment 7

Sharon Cassady and Mary Jo Humphreys commented that Liberty Hill is adding new sewer customers despite the fact that the application has not yet been granted.

Response 7

A wastewater discharge permit regulates the quantity of effluent that a permittee may discharge and the effluent's quality based, in part, on that quantity. It does not regulate the number of customers, or sewer service connections, that a permittee may serve. As long as a permittee does not exceed its permitted effluent flow, it can serve as many connections as it wishes. According to information supplied with the application, Liberty Hill has discharged an average of 0.105 MGD from February 2008 through November 2013. The existing permit allows Liberty Hill to discharge up to 1.2 MGD. Therefore, Liberty Hill can take on additional customers and not exceed its current flow limit.

Comment 8

Mary Jo Humphreys and Tim Humphreys commented that the Lower Colorado River Authority stated that the wastewater discharge plant would have no adverse effect on the river. Sharon Cassady stated that none of the things they asked for when the Lower Colorado River Authority first proposed the project were implemented.

Response 8

While the ED recognizes that the Lower Colorado River Authority was one of the

original permit holders of TPDES Permit No. WQ0014477001, the current permitting action is about the current permit holder, Liberty Hill, and what activities Liberty Hill seeks to conduct under its permit at this time. Liberty Hill did not become the permit holder until the transfer of ownership that the TCEQ approved on April 10, 2012. The current permitting action does provide opportunities for public participation, such as submitting the comments that have been referenced in this response and requesting a contested case hearing. This permitting action also does not prohibit Liberty Hill and any interested person, such as a neighboring landowner, from discussing the proposed permit or the effluent's past impacts on the river.

Comment 9

Sharon Cassady commented that, under title 30, section 281.19 of the Texas Administrative Code, Liberty Hill's application is no longer valid because the time limit for the technical review has expired. She observed that the TCEQ received the application on February 11, 2013, and her comment was dated March 11, 2014.

Response 9

According to title 30, section 281.1 of the Texas Administrative Code, the purpose of the application processing rules found in chapter 281 is to "establish a general policy for the processing of applications for permits . . . to achieve the greatest efficiency and effectiveness possible."¹ While ED staff attempts to complete its technical review of an application within the timeframe required by section 281.19, it is not always possible for staff to do so. The rules themselves take into account the possibility of potential delays with completing the technical review process. For example, section 281.19(b) allows for an extension when the TCEQ must obtain additional information from the applicant. Section 281.20 provides an additional procedure for the ED to extend the technical review deadline. Furthermore, even if the ED does not meet the technical review deadline, section 281.24 states that the chapter 281 time limits are not jurisdictional. In other words, the TCEQ maintains jurisdiction over an application even if ED staff does not complete its technical review of the application by the section 281.19(a) deadline. Therefore, Liberty Hill's application is still valid, and the TCEQ can continue to process it.

Comment 10

Sharon Cassady, Torrias Heads, Mary Jo Humphreys, Tim Humphreys, and Audrey Swearingen expressed explicit opposition to allowing Liberty Hill to increase its permitted effluent flow.

Response 10

The ED acknowledges the commenters' opposition to allowing Liberty Hill to

¹ 30 TEX. ADMIN. CODE § 281.1 (West 2014).

increase its permitted effluent flow. As discussed in Response 6, ED staff took Liberty Hill's proposed flow of 4.0 MGD into consideration when screening the discharge for compliance with the Texas Surface Water Quality Standards and believes treated effluent discharged in accordance with the requirements of the proposed permit will be protective of the river's surface water uses.

Comment 11

Jackson Cassady and Terry Cassady provided a link to a video regarding the South San Gabriel River. Sharon Cassady also provided a link to a video, but the link did not work as of August 27, 2014. Sally and Wendell Barrick provided photographs of the river taken from behind their house, which is downstream from the discharge point, and from approximately 0.75 mile upstream from the discharge point.

Response 11

The TCEQ acknowledges receipt of the video links and photographs.

Comment 12

The City of Leander commented that Liberty Hill's application is based on influent from areas located in what it referred to as the Leander Territory, which is the area located within Leander's city limits and extraterritorial jurisdiction north of the South San Gabriel River. Leander intends to provide sewer service to the Territory and is currently developing a CCN application and working with a developer to obtain a TPDES permit for the Territory. Leander expressed concern that, if the TCEQ grants Liberty Hill's application, it would adversely affect Leander's ability to provide service to the Territory and obtain a TPDES permit. Leander also argued that it would be better able to plan and provide for the orderly development of land within its jurisdiction if it were the sewer service provider than Liberty Hill would be able to. People who reside in Leander would have a political voice with regard to their rates, and developers would benefit from the service provider and development regulator being the same entity.

Response 12

In its application, Liberty Hill stated that it needs to increase its permitted flow because it is contractually or otherwise legally obligated to serve connections in seven different areas. The connections are located in Liberty Hill's sewer CCN No. 20969 area (650 living unit equivalents (LUEs)), Stonewall Ranch MUD (1,136 LUEs), Williamson County MUD No. 12 (1,584 LUEs), Williamson County MUD No. 13 (1,100 LUEs), Rosenbusch Tract (900 LUEs), Williamson County MUD No. 19 (1,000 LUEs), and Williamson County MUD No. 19A (6,667 LUEs). The total number of committed LUEs for this plant is 13,037. At a daily average flow of 275 gallons per day/LUE, this equates to a daily average flow of 3.59 MGD. Liberty Hill is applying for a total permitted flow of 4.0 MGD to accommodate all the committed LUEs and allow for additional growth in the future.

Leander did not indicate that Liberty Hill seeks to provide service within an area covered by an existing sewer CCN held by Leander. Under title 16, section 24.101 of the Texas Administrative Code, a municipality does not have to obtain a CCN to serve an area unless another retail public utility is already serving in that area. As Leander has not indicated that it has a CCN for the area it noted or is already providing service in the area, the ED is not aware of any reason why Liberty Hill would be prohibited from providing service in that area.

Comment 13

Terry Cassady asked for a copy of the Tier 1 and Tier 2 antidegradation reviews or information regarding where he can obtain copies of the reviews. He also asked who conducted the review, what criteria were used and how they were measured, and whether the person who conducted the review also visited the river. He and Audrey and Dean Swearingen commented that whoever conducted the reviews did not observe the river's present condition. Audrey and Dean Swearingen commented that the treatment plant has already destroyed the river's primary contact recreation use.

Response 13

Attachment A contains the Tier 1 and Tier 2 antidegradation reviews conducted by Peter Schaefer, Standards Implementation Team, Water Quality Permits Division. The documents show what information went into conducting the reviews. Mr. Schaefer was aware of the river's condition when he conducted the reviews. Responses 1 and 4 discuss how the river's condition was taken into account when setting the thirty-day average total phosphorus limit for the Final phase of the proposed permit.

Comment 14

Terry Cassady stated he took three samples from Liberty Hill's outfall and had them tested for chlorides, sulfates, and total dissolved solids. He stated the results showed that Liberty Hill's effluent is exceeding the Texas Surface Water Quality Standards for the river for those three pollutants.

Response 14

The TCEQ performed screening calculations for total dissolved solids, which includes chlorides and sulfates, in accordance with the *Procedures to Implement the Texas Surface Water Quality Standards (2010)*. These calculations took into consideration the dilution that occurs when effluent mixes with water in the receiving stream, which results in levels of total dissolved solids less than what is found in effluent taken directly from the outfall before mixing. Also, Liberty Hill does not receive contributions of wastewater with elevated total dissolved solids from industrial sources that could be examined for possible industrial process changes that would reduce the load of these dissolved solids entering the wastewater treatment plant. Therefore, the dissolved solids come from source water (drinking water) that eventually reaches the

wastewater treatment plant as sewage. Reduction of these dissolved solids would require reverse osmosis treatment that would result in an additional waste stream of highly concentrated dissolved solids that would have to be disposed of, such as discharging to a water course.

Comment 15

Sue Couchman asked that Liberty Hill look into other ways to filter the effluent before it reaches the river. Terry Cassady suggested that Liberty Hill could engage in direct or indirect water reuse for its effluent and convert the power line right-of-way through which the discharge pipeline runs into a bio-filter and buffer from plant upsets, which would mean the outfall would move to where the pipeline first enters the right-of-way. Stephanie Morris requested that a study be conducted to look into shortening the outfall, even if it were just an academic study. Terry Vance asked that Liberty Hill consider investing in acreage so it can land apply its effluent rather than discharge it.

Response 15

The Texas Water Code authorizes discharges into water in the state, provided the discharger obtains a permit from the TCEQ. The TCEQ does not have the authority to mandate a different type of wastewater treatment or discharge location than the one proposed by an applicant if the TCEQ is able to provide appropriate effluent limits that protect the receiving stream's uses. Following the issuance of a wastewater discharge permit, a permittee can apply for authorization to reuse effluent under the rules set forth in title 30, chapter 210 of the Texas Administrative Code.

According to Liberty Hill, it does not have plans at this time for an effluent bio-filter or to relocate its outfall. It further stated that it is exploring its Type I reclaimed water use options for its effluent under chapter 210.

Comment 16

Casey Callahan requested that the river itself be monitored by TCEQ scientists who would take samples regularly.

Response 16

To assess the effectiveness of the permit effluent limits to protect the river's water quality, TCEQ staff will perform routine biological, chemical, and habitat monitoring of the river at the outfall and, if necessary, take appropriate action to ensure that the Texas Surface Water Quality Standards are not violated.

Comment 17

Stephanie Morris asked for an increase in public service announcements that would educate people regarding how their personal wastewater production and fertilizer

use could impact the river. She commented that those who live along the river should not use fertilizer at all.

Response 17

Chapter 26 of the Texas Water Code does not authorize the TCEQ to require these types of public service announcements when issuing a discharge permit. Anyone may contact the Take Care of Texas Program of the TCEQ at 512-239-2204 to explore the possibility of providing information about the impact of wastewater and fertilizer on the river to the public. As noted on the Take Care of Texas web site,² using fewer and better pesticides and fertilizers helps avoid chemical runoff into water bodies.

Comment 18

Stephanie Morris asked that a service be created, whether a law needs to be passed requiring the service or not, to which the public can subscribe to receive notifications when a permittee has a significant fluctuation in its effluent water quality.

Response 18

Under Monitoring and Reporting Requirement No. 7 of the proposed permit, Liberty Hill must notify the TCEQ of any instance of noncompliance with its permit that may endanger human health or safety or the environment within twenty-four hours of learning of the noncompliance. Anyone may contact the TCEQ Region 11 Office at 512-339-2929 at any time to learn of any reports of noncompliance for Liberty Hill's permit. Information can also be obtained online from the TCEQ's Central Registry and U.S. Environmental Protection Agency's Enforcement and Compliance History Online web sites.³

III. CHANGES MADE TO THE PROPOSED PERMIT IN RESPONSE TO COMMENT

The ED did not make any changes to the proposed permit in response to public comment.

² <http://takecareoftexas.org>

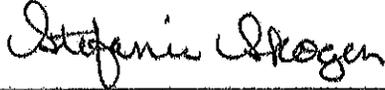
³ The TCEQ's Central Registry can be accessed from the TCEQ's home page, the address for which was provided in section I.C. The U.S. Environmental Protection Agency's Enforcement and Compliance History Online web site is available at <http://echo.epa.gov>.

Respectfully submitted,

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

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ATTACHMENT A

Permit Review for Classified Waters by Standards Team
X Amendment or New

Name: City of Liberty Hill

Number: 14477-001

County: Williamson

Region: 11

Basin: Brazos

Date Application Received: February 11, 2013

1. Segment in Which Discharge is Located: 1250; South Fork San Gabriel River
2. Designated Uses and Pertinent Criteria: PCR, H, PS/AP; DO = 5.0 mg/L
3. Additional Comments: Applicant is amending permit to increase discharge from 1.2 to 4 MGD. Currently under and enforcement order due to two exceedances for NH₃-N. Plant and outfall located in the Edwards Aquifer Contributing Zone.

Current effluent limits =

0.4 MGD phase: 5 mg/L CBOD, 5 mg/L TSS, 2 mg/L NH₃-N, 16.6 mg/L nitrate nitrogen, 0.5 mg/L (1.7 lbs/d) TP, report only for total nitrogen, and 126 cfu's E coli.

0.8 MGD phase: 5 mg/L CBOD, 5 mg/L TSS, 2 mg/L NH₃-N, 16.6 mg/L nitrate nitrogen, 0.5 mg/L (3.3 lbs/d) TP, report only for total nitrogen, and 126 cfu's E coli.

1.2 MGD phase: 5 mg/L CBOD, 5 mg/L TSS, 2 mg/L NH₃-N, 16.6 mg/L nitrate nitrogen, 0.5 mg/L (5.0 lbs/d) TP, report only for total nitrogen, and 126 cfu's E coli.

305b . Screening concerns for depressed DO in upper reaches of segment.

4. Applicable Toxic Criteria: Acute, chronic, sustainable fish tissue, public water supply.

Critical low flow = 0.15 cfs and HM = 0.4 cfs

5. Antidegradation Review:

Nutrients: TP screening indicates that TP limits are needed. The applicant is currently permitted to discharge 1.2 MGD with a 0.5 mg/L TP limit. Because algal growth is currently visible beginning at the outfall location and extending downstream for some distance, it is recommended that a 0.15 mg/L TP limit be imposed on the 4 MGD final phase to keep existing TP loading from increasing as a result of the increase in flow.

TDS: Screening calculations were performed for TDS in accordance with the 2003 and draft 2010 IP's. The screening indicated that permit limits for TDS, chloride and sulfate are needed. The ambient TDS is 276 mg/L, and the TDS reported in the effluent analysis provided with the permit application was 544 mg/L. Because this is a typical rise in TDS above ambient (300 mg/L rise is usually considered typical) that would be expected from a wastewater facility with no industrial contributors, no TDS, chloride, or sulfate limits are recommended at this time.

6. Endangered species: None.

Signature: Peter Schaefer

Date: April 4, 2013

(Over)

Entered into Database:
ERC Review date:

Peer reviewer, fill in the bold columns. Standards reviewer, fill in the non-bold columns.

| Date to Peer Reviewer (PR) | PR initial s | Date to SR for reevaluation | Date to PR for Final Review | Date to SR for Finalization | Date to Crit Conditions |
|----------------------------|---------------------|------------------------------------|-----------------------------|------------------------------------|-------------------------|
| March 28, 2013 | JT | 4/2/13 | 4/4/13 | 4/4/13 | 4/05/2013 |

RE-EVALUATION COMMENTS

Nutrient Screening for Streams and Rivers (see pages 37 - 43 of the draft IPs)

Applicant Name City of Liberty Hill
 Permit number: 14477-001

Segment: 1250 South Fork San Gabriel River

STEP 1: Determine evaluation distance. This a rough guide (page 37).

| Permitted flow (MGD) | Evaluation distance (stream miles) |
|----------------------|------------------------------------|
| <0.25 | <3 |
| 0.25 to <1.0 | <7 |
| ≥ 1.0 | <15 |

STEP 2: Assess concerns: enter point values in boxes to the right.

| Level of concern | HIGH (5 points) | | | Specific notes on scores for this permit. |
|--|---|--|--|--|
| | LOW (1 point) | MOD (3 points) | HIGH (5 points) | |
| Discharge (MGD) | <0.25 | 0.25 to <1.0 | ≥1.0 | 5 proposing to increase flow of 4 MGD |
| Instream dilution (percent effluent) | >10 | 10 to <25 | ≥25 | 5 Proposed flow if 4 mgd, LIM is 0.4 MGD and TQ2 is 0.15 MGD. |
| Bottom (Sensitivity to growth of attached algae) | Mud or sand | Rocky cobble, gravel, usually with some riffle areas | Larger rocks and boulders, rock slabs | 5 clear water, shallow bedrock stream. |
| Depth (Sensitivity to growth of attached vegetation) | Relatively steep banks and deep channels across streams | Gently sloping sides with some shallow areas | Substantial shallow areas near banks and in stream channel | 5 clear water, shallow bedrock stream. |
| Water clarity | Turbid or lannic | Some turbidity, not murky | Clear water | 5 clear water, shallow bedrock stream. |
| Observation* (Sensitivity to growth of aquatic vegetation) | Little | Limited/some | Heavy patches | 5 aerial photos show what looks like widespread algae/phytoplankton growth beginning at existing outfall and extending from 300 yards to 1 mile downstream. |
| Shading (Sensitivity to growth of aquatic vegetation) | Extensive canopy cover shades most of stream surface | Substantial canopy cover but only partial shading; not "deep woods" | Canopy cover diffuses light some, but substantial light reaches stream | 5 stream bottom open canopy. |
| Stream type | Intermittent | Intermittent with pools | Perennial | 5 Perennial |
| Impoundments | No impoundments >300' long, not many pools | No impoundments >300', substantial pools over 20% of reach | At least one impoundment >300' | 5 many pooled areas in stream. First inouundment (0.75 mi long X 80 feet wide) begins approx. 13 mi. downstream. |
| Consistency | Similar permits do not have TP limits | Some similar permits have TP limits, but applicability is site-specific and not across the board | Discharges w/similar characteristics usually have a TP limit | 5 Current permit has 0.5 mg/L TP limit. |
| Concern 305(b) and 303(d) | No concern for nutrients or aquatic veg in latest integrated report | Concern for exceedance of 85th percentile | Documented problems | 1 Concerns for depressed DO in upper reaches, but not at outfall. No nutrient concerns currently identified. |

Sum: 51
 Average: 4.64

Average <2, probably no TP limit needed

Average >4, TP limit probably needed

Average 2-4, TP monitoring or a limit is possible, depending.

If a TP limit is needed, screening factors and levels of concern can be used to determine the TP limit.

Total Phosphorus concentration calculation for perennial streams

| | | |
|---|-------------|-----------------------------------|
| Effluent flow in MGD | 4 | |
| | 6.2 | Effluent flow in cfs (calculated) |
| Harmonic mean flow in cfs | 0.4 | |
| Ambient TP in mg/L | 0.05 | |
| Effluent TP in mg/L | 0.15 | Presume 3.5 mg/L unless using sar |
| Concentration of TP downstream of outfall in mg/L | 0.143939394 | |
| TP loading in lbs/day | 5.004 | 5.004 |

Total Phosphorus concentration calculation for perennial streams

| | | |
|---|-------------|-----------------------------------|
| Effluent flow in MGD | 1.2 | |
| | 1.86 | Effluent flow in cfs (calculated) |
| Harmonic mean flow in cfs | 0.4 | |
| Ambient TP in mg/L | 0.05 | |
| Effluent TP in mg/L | 0.5 | Presume 3.5 mg/L unless using sar |
| Concentration of TP downstream of outfall in mg/L | 0.420353982 | |
| TP loading in lbs/day | 5.004 | 5.004 |

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate
Menu 3 - Discharge to a Perennial Stream or River

Applicant Name: City of Liberty Hill (Liberty Hill Regional Plant)
 Permit Number: 14477-001
 Segment Number: 1250

| Enter values needed for screening: | | Data Source |
|--|-------------------|-----------------------------|
| QE - Average effluent flow | <u>4</u> MGD | Permit application |
| QS - Perennial stream harmonic mean flow | <u>0.67</u> cfs | Critical conditions memo |
| QE - Average effluent flow | <u>6.1889</u> cfs | Calculated |
| CA - TDS - ambient segment concentration | <u>270</u> mg/L | IP, Appendix D (Segment) |
| CA - chloride - ambient segment concentration | <u>17</u> mg/L | IP, Appendix D (Segment) |
| CA - sulfate - ambient segment concentration | <u>21</u> mg/L | IP, Appendix D (Segment) |
| CC - TDS - segment criterion | <u>350</u> mg/L | TSWQS, Appendix A (Segment) |
| CC - chloride - segment criterion | <u>50</u> mg/L | TSWQS, Appendix A (Segment) |
| CC - sulfate - segment criterion | <u>50</u> mg/L | TSWQS, Appendix A (Segment) |
| CE - TDS - average effluent concentration | <u>544</u> mg/L | Permit application |
| CE - chloride - average effluent concentration | <u>181</u> mg/L | Permit application |
| CE - sulfate - average effluent concentration | <u>93</u> mg/L | Permit application |

Screening Equation

$$CC \geq \frac{(QS)(CA) + (QE)(CE)}{QE + QS}$$

Preliminary Calculations

| Parameter | Load in River | Effluent Load | New Concentration | Consider | % Change |
|-----------|---------------|---------------|-------------------|----------|--------------|
| | QSCA | QECE | Equation 2 | Limit? | In Ambient |
| TDS | <u>181</u> | <u>3,367</u> | <u>517</u> | yes | <u>91.6</u> |
| Chloride | <u>11</u> | <u>1,120</u> | <u>165</u> | yes | <u>870.5</u> |
| Sulfate | <u>14</u> | <u>572</u> | <u>86</u> | yes | <u>307.2</u> |

Permit Limit Calculations

TDS

| | | | |
|------------------------------------|-------------------------------------|---|-----------------------------|
| Calculate the WLA | WLA = $[(CC)(QE+QS) - (QS)(CA)]/QE$ | | <u>359</u> |
| Calculate the LTA | LTA = WLA * 0.93 | | <u>334</u> |
| Calculate the daily average | Daily Avg. = LTA * 1.47 | | <u>490</u> |
| Calculate the daily maximum | Daily Max. = LTA * 3.11 | | <u>1,037</u> |
| Calculate 70% of the daily average | 70% of Daily Avg. = | | <u>343</u> |
| Calculate 85% of the daily average | 85% of Daily Avg. = | | <u>417</u> |
| No permit limitations required if: | <u>544</u> | < | <u>343</u> |
| Reporting required if: | <u>544</u> | > | <u>343</u> but < <u>417</u> |
| Permit limits may be required if: | <u>544</u> | > | <u>417</u> |

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate
Menu 3 - Discharge to a Perennial Stream or River

Chloride

| | | | | | | |
|---|-----------------------------------|-----|---|-----|-------|----|
| Calculate the WLA | $WLA = [CC(QE+QS) - (QS)(CA)]/QE$ | | | 54 | | |
| Calculate the LTA | $LTA = WLA * 0.93$ | | | 50 | | |
| Calculate the daily average | $Daily\ Avg. = LTA * 1.47$ | | | 73 | | |
| Calculate the daily maximum | $Daily\ Max. = LTA * 3.11$ | | | 155 | | |
| Calculate 70% of the daily average | 70% of Daily Avg. = | | | 51 | | |
| Calculate 85% of the daily average | 85% of Daily Avg. = | | | 62 | | |
| No permit limitations required if: | | 181 | ≥ | 51 | | |
| Reporting required if: | | 181 | > | 51 | but ≤ | 62 |
| Permit limits may be required if: | | 181 | > | 62 | | |

Sulfate

| | | | | | | |
|---|-----------------------------------|----|---|-----|-------|----|
| Calculate the WLA | $WLA = [CC(QE+QS) - (QS)(CA)]/QE$ | | | 53 | | |
| Calculate the LTA | $LTA = WLA * 0.93$ | | | 49 | | |
| Calculate the daily average | $Daily\ Avg. = LTA * 1.47$ | | | 73 | | |
| Calculate the daily maximum | $Daily\ Max. = LTA * 3.11$ | | | 154 | | |
| Calculate 70% of the daily average | 70% of Daily Avg. = | | | 51 | | |
| Calculate 85% of the daily average | 85% of Daily Avg. = | | | 62 | | |
| No permit limitations required if: | | 93 | ≥ | 51 | | |
| Reporting required if: | | 93 | > | 51 | but ≤ | 62 |
| Permit limits may be required if: | | 93 | > | 62 | | |

Permit Action: Amendment to increase flow from a final phase of 1.2 MGD to 4 MGD. The discharge route is directly to the South Fork San Gabriel River.

Concerns: The plant was initially permitted in December 2004 and began discharging in November 2006. Aerial photos reveal visible algal growth at the outfall location in every photo since the plant began discharging. No algae is visible in any of the aerial photos taken before the plant began discharging. The existing permit has a total phosphorus (TP) limit of 0.5 mg/L and a final phase of 1.2 MGD. Due to concerns for nutrient enrichment that were brought up with the initial new permit application, the permit included a requirement that the applicant to perform a study to determine the effects of increased nutrients on the stream. Several parameters were measured at sampling sites upstream and downstream of the outfall, including periphyton (attached algae) density. Periphyton density is the most useful data from this study for determining the effects of nutrient enrichment in this stream and the data indicate increased periphyton downstream of the outfall. Pictures of the receiving stream near the outfall were taken during a site visit on May 14, 2013 corroborating the aerial photos by revealing dense algal growth. All of the above evidence indicate a propensity for algal growth in the receiving stream.

Enforcement Order: Plant is currently under a TCEQ enforcement order for violations of permit limits for bacteria, ammonia, and total phosphorus. The violations occurred in June, August, and September of 2012, but the plant had been operating within limits previously. TCEQ enforcement personnel stated that the excursion was likely due to something being dumped into the sewer system that killed the plant's flora.

Proposed TP limits: To address possible instream effects from the proposed effluent flow increase, staff is recommending a TP limit of 0.15 mg/L at the final phase of 4 MGD so that the overall TP loading to the stream will not increase from what is currently permitted and the TP concentration will be greatly reduced from what is currently permitted. See chart below.

The wastewater treatment plant is currently discharging approximately 0.1 MGD, and are currently permitted to discharge up to 1.2 MGD.

| | Flow MGD | TP limit mg/L | Loading lbs/d |
|---|----------|---------------|---------------|
| Currently permitted TP loading | 1.2 | 0.5 | 5.004 |
| TP loading with increased flow and same TP limits | 4 | 0.5 | 16.68 |
| TP loading with increased flow and staff recommended limits | 4 | 0.15 | 5.004 |
| Current TP loading based on current effluent flows | 0.1 | 0.5 | 0.417 |



Figure 1. Aerial Photo taken 1/06/1996.



Figure 2. Aerial Photo taken 12/31/2001.



Figure 3. Aerial Photo taken 6/27/2005.

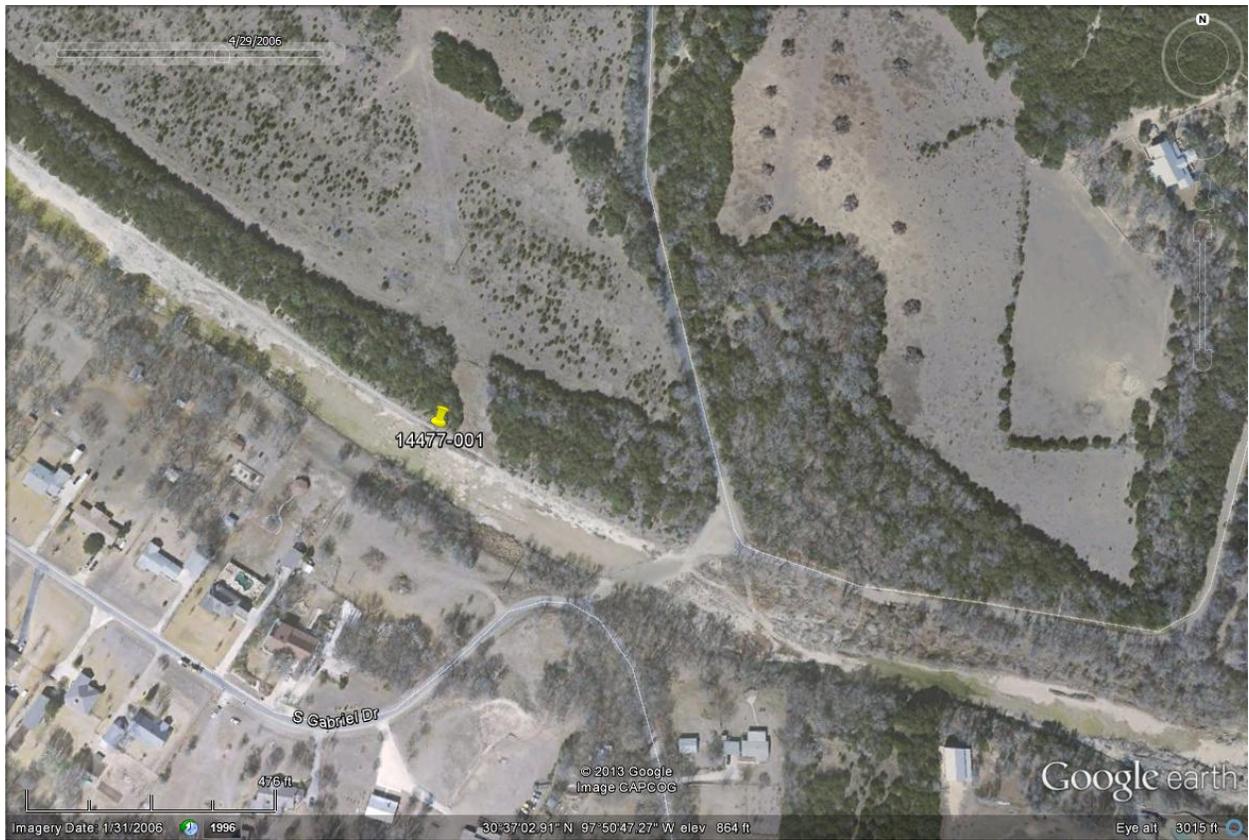


Figure 4. Aerial Photo taken 1/31/2006.

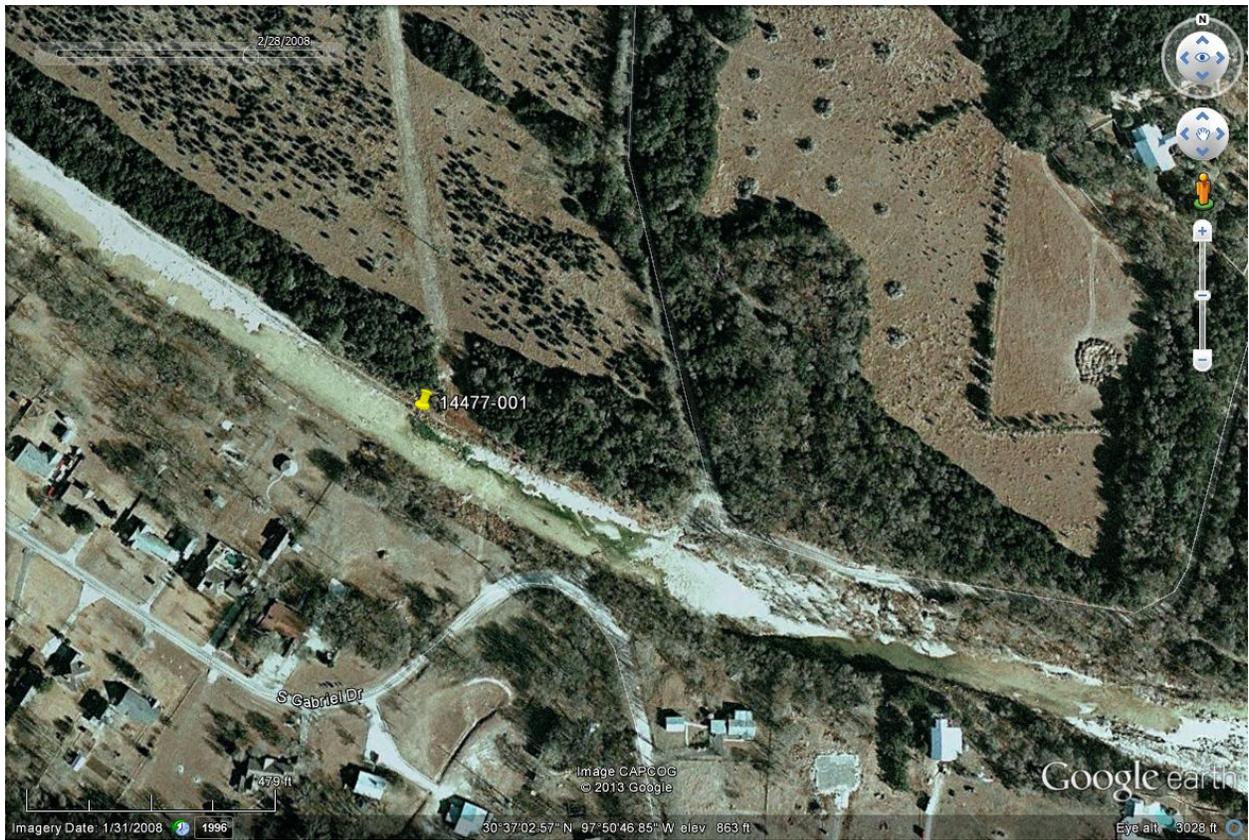


Figure 5. Aerial Photo taken 1/31/2008.



Figure 6. Aerial Photo taken 1/31/2009.

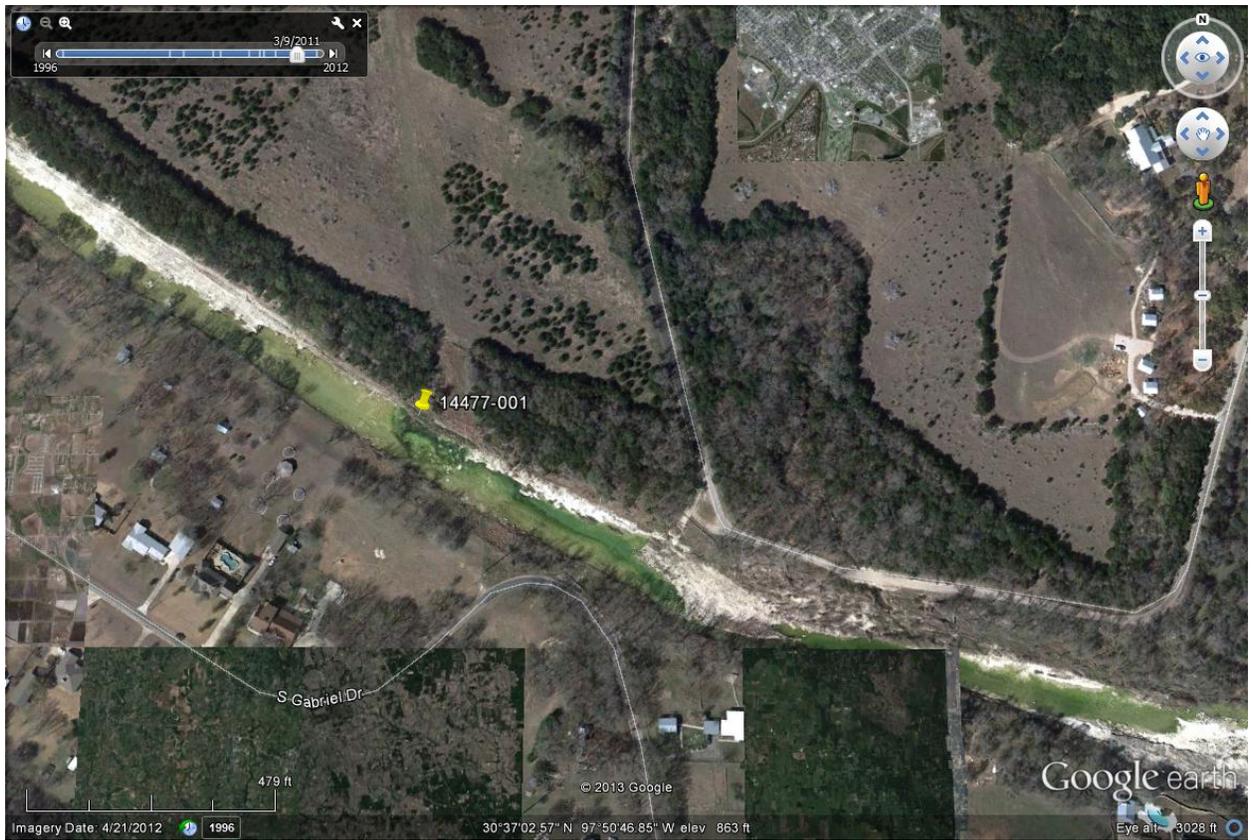


Figure 7. Aerial Photo taken 4/12/2012.

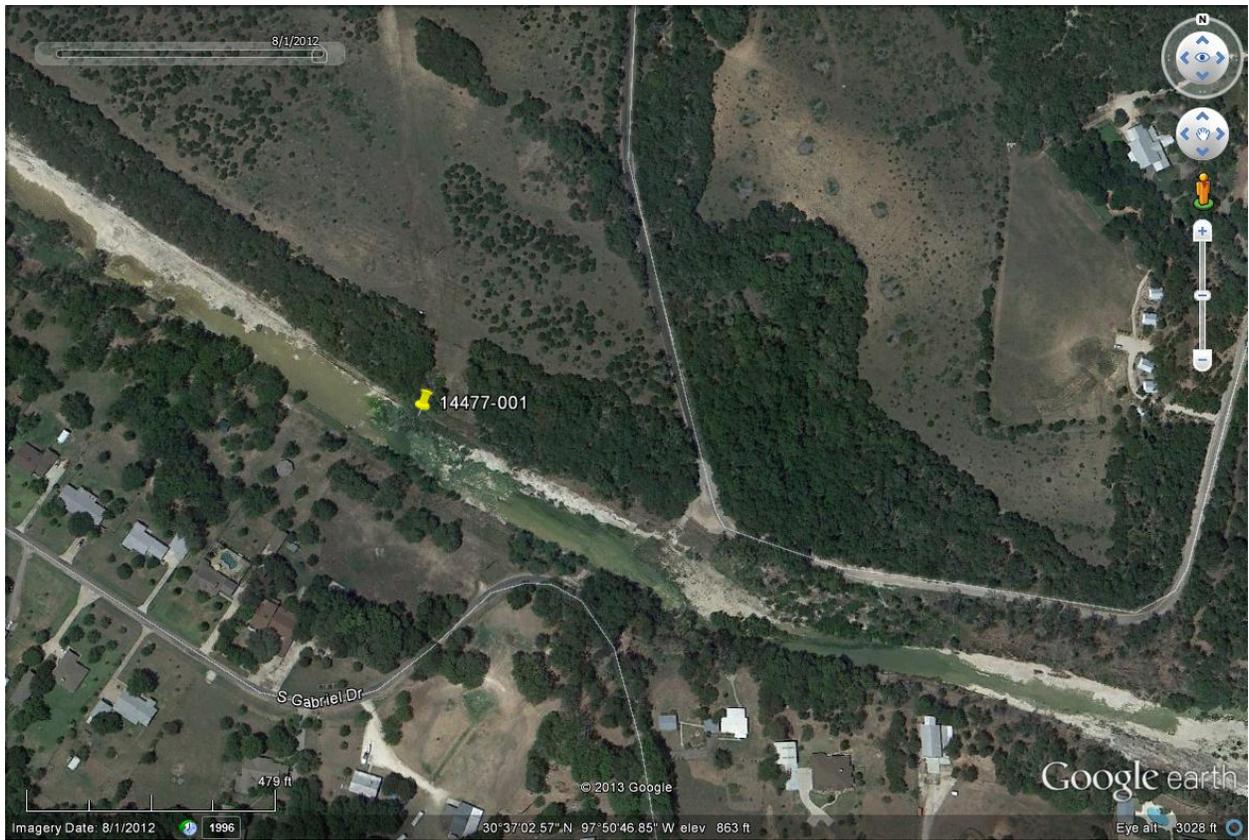


Figure 8. Aerial Photo taken 8/01/2012.



Figure 9. South Fork San Gabriel River approximately 150 feet downstream of 14477-001 outfall looking upstream 5/14/2013.



Figure 10. South Fork San Gabriel River approximately 150 feet downstream of 14477-001 outfall looking across river 5/14/2013.



Figure 11. South Fork San Gabriel River approximately 150 feet downstream of 14477-001 outfall looking downstream 5/14/2013.



Figure 12. South Fork San Gabriel River approximately 150 feet downstream of 14477-001 outfall 5/14/2013.



Figure 13. South Fork San Gabriel River at 14477-001 outfall 5/14/2013.



Figure 14. South Fork San Gabriel River looking upstream from 14477-001 outfall. Notice clear water beginning upstream of outfall 5/14/2013.

ATTACHMENT E



Compliance History Report

PUBLISHED Compliance History Report for CN602959033, RN104102132; Rating Year 2014 which includes Compliance History (CH) components from September 1, 2009, through August 31, 2014.

| | | | | | |
|---|--|--------------------------|----------------|---------------------|------------|
| Customer, Respondent, or Owner/Operator: | CN602959033, City of Liberty Hill | Classification: | SATISFACTORY | Rating: | 5.23 |
| Regulated Entity: | RN104102132, LIBERTY HILL REGIONAL WWTP | Classification: | SATISFACTORY | Rating: | 5.23 |
| Complexity Points: | 8 | Repeat Violator: | NO | | |
| CH Group: | 08 - Sewage Treatment Facilities | | | | |
| Location: | APPROX 9150 FT SW OF INTX OF US HWY 183 & SH 29 & APPROX 4000 FT N OF THE S FORK SAN GABRIEL RIVER WILLIAMSON, TX, WILLIAMSON COUNTY | | | | |
| TCEQ Region: | REGION 11 - AUSTIN | | | | |
| ID Number(s): | | | | | |
| WASTEWATER EPA ID | TX0126195 | WASTEWATER PERMIT | WQ0014477001 | | |
| Compliance History Period: | September 01, 2009 to August 31, 2014 | Rating Year: | 2014 | Rating Date: | 09/01/2014 |
| Date Compliance History Report Prepared: | January 29, 2015 | | | | |
| Agency Decision Requiring Compliance History: | Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit. | | | | |
| Component Period Selected: | February 11, 2008 to January 29, 2015 | | | | |
| TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History. | | | | | |
| Name: | TCEQ Staff Member | Phone: | (512) 239-1000 | | |

Site and Owner/Operator History:

- 1) Has the site been in existence and/or operation for the full five year compliance period? YES
- 2) Has there been a (known) change in ownership/operator of the site during the compliance period? NO
- 3) If YES for #2, who is the current owner/operator? N/A
- 4) If YES for #2, who was/were the prior owner(s)/operator(s)? N/A
- 5) If YES, when did the change(s) in owner or operator occur? N/A

Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:

- 1 Effective Date: 08/08/2013 ADMINORDER 2013-0010-MWD-E (1660 Order-Agreed Order With Denial)
Classification: Moderate
Citation: 2D TWC Chapter 26, SubChapter A 26.121(a)(1)
30 TAC Chapter 305, SubChapter F 305.125(1)
Rqmt Prov: Int. I & II Effl. Lim. & Mon. Req. No. 1 PERMIT
Description: Failed to comply with permitted effluent limits.

See addendum for information regarding federal actions.

B. Criminal convictions:

N/A

C. Chronic excessive emissions events:

N/A

D. The approval dates of investigations (CCEDS Inv. Track. No.):

- Item 1 February 20, 2008 (677886)

| | | |
|---------|--------------------|-----------|
| Item 2 | March 20, 2008 | (677887) |
| Item 3 | April 18, 2008 | (677888) |
| Item 4 | May 20, 2008 | (696718) |
| Item 5 | June 20, 2008 | (696719) |
| Item 6 | July 21, 2008 | (696720) |
| Item 7 | August 20, 2008 | (718437) |
| Item 8 | October 17, 2008 | (718438) |
| Item 9 | November 20, 2008 | (733680) |
| Item 10 | December 19, 2008 | (733681) |
| Item 11 | January 20, 2009 | (733682) |
| Item 12 | February 13, 2009 | (756829) |
| Item 13 | April 20, 2009 | (756831) |
| Item 14 | May 18, 2009 | (773675) |
| Item 15 | June 15, 2009 | (773676) |
| Item 16 | July 20, 2009 | (931301) |
| Item 17 | August 20, 2009 | (821380) |
| Item 18 | September 18, 2009 | (821381) |
| Item 19 | November 20, 2009 | (821383) |
| Item 20 | December 18, 2009 | (821384) |
| Item 21 | January 19, 2010 | (821385) |
| Item 22 | February 17, 2010 | (821379) |
| Item 23 | March 19, 2010 | (836762) |
| Item 24 | April 14, 2010 | (836763) |
| Item 25 | May 14, 2010 | (836764) |
| Item 26 | June 18, 2010 | (848070) |
| Item 27 | August 20, 2010 | (869132) |
| Item 28 | September 17, 2010 | (875992) |
| Item 29 | November 17, 2010 | (889957) |
| Item 30 | December 17, 2010 | (898375) |
| Item 31 | January 14, 2011 | (904214) |
| Item 32 | February 17, 2011 | (911085) |
| Item 33 | March 16, 2011 | (918372) |
| Item 34 | April 18, 2011 | (931300) |
| Item 35 | May 13, 2011 | (940102) |
| Item 36 | June 15, 2011 | (947501) |
| Item 37 | July 18, 2011 | (954752) |
| Item 38 | August 16, 2011 | (961335) |
| Item 39 | September 19, 2011 | (967454) |
| Item 40 | October 18, 2011 | (973396) |
| Item 41 | November 18, 2011 | (979518) |
| Item 42 | December 19, 2011 | (986367) |
| Item 43 | January 18, 2012 | (992750) |
| Item 44 | February 20, 2012 | (1000092) |
| Item 45 | March 20, 2012 | (1005587) |
| Item 46 | April 20, 2012 | (1012148) |
| Item 47 | May 17, 2012 | (1018547) |
| Item 48 | June 15, 2012 | (1026250) |
| Item 49 | September 04, 2012 | (1040130) |
| Item 50 | February 19, 2013 | (1083435) |
| Item 51 | May 20, 2013 | (1108838) |
| Item 52 | July 19, 2013 | (1119351) |
| Item 53 | September 18, 2013 | (1131637) |
| Item 54 | October 18, 2013 | (1137381) |
| Item 55 | November 13, 2013 | (1142803) |
| Item 56 | December 17, 2013 | (1149220) |
| Item 57 | January 17, 2014 | (1155324) |
| Item 58 | February 20, 2014 | (1162648) |
| Item 59 | March 19, 2014 | (1169247) |
| Item 60 | April 16, 2014 | (1176445) |
| Item 61 | July 16, 2014 | (1194884) |

Item 62 August 18, 2014 (1201597)
Item 63 September 15, 2014 (1116256)

E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

- | | | | |
|---|--|--------------------------|--|
| 1 | Date: 04/30/2014 (1182690) | CN602959033 | |
| | Self Report? YES | Classification: Moderate | |
| | Citation: 2D TWC Chapter 26, SubChapter A 26.121(a) 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Description: Failure to meet the limit for one or more permit parameter | | |
| 2 | Date: 05/31/2014 (1189559) | CN602959033 | |
| | Self Report? YES | Classification: Moderate | |
| | Citation: 2D TWC Chapter 26, SubChapter A 26.121(a) 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Description: Failure to meet the limit for one or more permit parameter | | |
| 3 | Date: 09/30/2014 (1214267) | CN602959033 | |
| | Self Report? YES | Classification: Moderate | |
| | Citation: 2D TWC Chapter 26, SubChapter A 26.121(a) 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Description: Failure to meet the limit for one or more permit parameter | | |
| 4 | Date: 10/31/2014 (1220494) | CN602959033 | |
| | Self Report? YES | Classification: Moderate | |
| | Citation: 2D TWC Chapter 26, SubChapter A 26.121(a) 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Description: Failure to meet the limit for one or more permit parameter | | |

F. Environmental audits:

N/A

G. Type of environmental management systems (EMSs):

N/A

H. Voluntary on-site compliance assessment dates:

N/A

I. Participation in a voluntary pollution reduction program:

N/A

J. Early compliance:

N/A

Sites Outside of Texas:

N/A

The TCEQ is committed to accessibility.
To request a more accessible version of this report, please contact the TCEQ Help Desk at (512) 239-4357.



Compliance History Report

PUBLISHED Compliance History Report for CN602959033, RN104102132, Rating Year 2013 which includes Compliance History (CH) components from September 1, 2008, through August 31, 2013.

| | | | | | |
|---|--|---------------------------------------|----------------|---------------------|------------|
| Customer, Respondent, or Owner/Operator: | CN602959033, City of Liberty Hill | Classification: | SATISFACTORY | Rating: | 7.69 |
| Regulated Entity: | RN104102132, LIBERTY HILL REGIONAL WWTP | Classification: | SATISFACTORY | Rating: | 7.69 |
| Complexity Points: | 8 | Repeat Violator: | NO | | |
| CH Group: | 08 - Sewage Treatment Facilities | | | | |
| Location: | APPROX 9150 FT SW OF INTX OF US HWY 183 & SH 29 & APPROX 4000 FT N OF THE S FORK SAN GABRIEL RIVER WILLIAMSON, TX, WILLIAMSON COUNTY | | | | |
| TCEQ Region: | REGION 11 - AUSTIN | | | | |
| ID Number(s): | | | | | |
| WASTEWATER EPA ID TX0126195 | | WASTEWATER PERMIT WQ0014477001 | | | |
| Compliance History Period: | September 01, 2008 to August 31, 2013 | Rating Year: | 2013 | Rating Date: | 09/01/2013 |
| Date Compliance History Report Prepared: | December 23, 2013 | | | | |
| Agency Decision Requiring Compliance History: | Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit. | | | | |
| Component Period Selected: | February 11, 2008 to December 23, 2013 | | | | |
| TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History. | | | | | |
| Name: | J. D. Centeno, Jr. | Phone: | (512) 239-4608 | | |

Site and Owner/Operator History:

- 1) Has the site been in existence and/or operation for the full five year compliance period? YES
- 2) Has there been a (known) change in ownership/operator of the site during the compliance period? NO
- 3) If YES for #2, who is the current owner/operator? N/A
- 4) If YES for #2, who was/were the prior owner(s)/operator(s)? N/A
- 5) If YES, when did the change(s) in owner or operator occur? N/A

Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:

1 Effective Date: 08/08/2013 ADMINORDER 2013-0010-MWD-E (1660 Order-Agreed Order With Denial)
Classification: Moderate
Citation: 2D TWC Chapter 26, SubChapter A 26.121(a)(1)
30 TAC Chapter 305, SubChapter F 305.125(1)
Rqmt Prov: Int. I & II Effl. Lim. & Mon. Req. No. 1 PERMIT
Description: Failed to comply with permitted effluent limits.

See addendum for information regarding federal actions.

B. Criminal convictions:
N/A

C. Chronic excessive emissions events:
N/A

D. The approval dates of investigations (CCEDS Inv. Track. No.):
Item 1 February 20, 2008 (677886)

| | | |
|---------|--------------------|-----------|
| Item 2 | March 20, 2008 | (677887) |
| Item 3 | April 18, 2008 | (677888) |
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| Item 6 | July 21, 2008 | (696720) |
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| Item 8 | October 17, 2008 | (718438) |
| Item 9 | November 20, 2008 | (733680) |
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| Item 11 | January 20, 2009 | (733682) |
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| Item 13 | April 20, 2009 | (756831) |
| Item 14 | May 18, 2009 | (773675) |
| Item 15 | June 15, 2009 | (773676) |
| Item 16 | July 20, 2009 | (931301) |
| Item 17 | August 20, 2009 | (821380) |
| Item 18 | September 18, 2009 | (821381) |
| Item 19 | November 20, 2009 | (821383) |
| Item 20 | December 18, 2009 | (821384) |
| Item 21 | January 19, 2010 | (821385) |
| Item 22 | February 17, 2010 | (821379) |
| Item 23 | March 19, 2010 | (836762) |
| Item 24 | April 14, 2010 | (836763) |
| Item 25 | May 14, 2010 | (836764) |
| Item 26 | June 18, 2010 | (848070) |
| Item 27 | August 20, 2010 | (869132) |
| Item 28 | September 17, 2010 | (875992) |
| Item 29 | November 17, 2010 | (889957) |
| Item 30 | December 17, 2010 | (898375) |
| Item 31 | January 14, 2011 | (904214) |
| Item 32 | February 17, 2011 | (911085) |
| Item 33 | March 16, 2011 | (918372) |
| Item 34 | April 18, 2011 | (931300) |
| Item 35 | May 13, 2011 | (940102) |
| Item 36 | June 15, 2011 | (947501) |
| Item 37 | July 18, 2011 | (954752) |
| Item 38 | August 16, 2011 | (961335) |
| Item 39 | September 19, 2011 | (967454) |
| Item 40 | October 18, 2011 | (973396) |
| Item 41 | November 18, 2011 | (979518) |
| Item 42 | December 19, 2011 | (986367) |
| Item 43 | January 18, 2012 | (992750) |
| Item 44 | February 20, 2012 | (1000092) |
| Item 45 | March 20, 2012 | (1005587) |
| Item 46 | April 20, 2012 | (1012148) |
| Item 47 | May 17, 2012 | (1018547) |
| Item 48 | June 15, 2012 | (1026250) |
| Item 49 | September 04, 2012 | (1040130) |
| Item 50 | February 19, 2013 | (1083435) |
| Item 51 | May 20, 2013 | (1108838) |
| Item 52 | July 19, 2013 | (1119351) |
| Item 53 | September 18, 2013 | (1131637) |
| Item 54 | October 18, 2013 | (1137381) |

E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

1 Date: 12/31/2012 (1083436) CN602959033
 Self Report? YES Classification: Moderate
 Citation: 2D TWC Chapter 26, SubChapter A 26.121(a)

Published Compliance History Report for CN602959033, RN104102132, Rating Year 2013 which includes Compliance History (CH) components from February 11, 2008, through December 23, 2013.

| | | | | |
|---|--------------|---|-----------------|----------|
| | Description: | 30 TAC Chapter 305, SubChapter F 305.125(1) Failure to meet the limit for one or more permit parameter | | |
| 2 | Date: | 02/28/2013 (1091460) | CN602959033 | |
| | Self Report? | YES | Classification: | Moderate |
| | Citation: | 2D TWC Chapter 26, SubChapter A 26.121(a) 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Description: | Failure to meet the limit for one or more permit parameter | | |
| 3 | Date: | 03/31/2013 (1097804) | CN602959033 | |
| | Self Report? | YES | Classification: | Moderate |
| | Citation: | 2D TWC Chapter 26, SubChapter A 26.121(a) 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Description: | Failure to meet the limit for one or more permit parameter | | |
| 4 | Date: | 05/31/2013 (1112396) | CN602959033 | |
| | Self Report? | YES | Classification: | Moderate |
| | Citation: | 2D TWC Chapter 26, SubChapter A 26.121(a) 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Description: | Failure to meet the limit for one or more permit parameter | | |
| 5 | Date: | 07/31/2013 (1127101) | CN602959033 | |
| | Self Report? | YES | Classification: | Moderate |
| | Citation: | 2D TWC Chapter 26, SubChapter A 26.121(a) 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Description: | Failure to meet the limit for one or more permit parameter | | |

F. Environmental audits:

N/A

G. Type of environmental management systems (EMSs):

N/A

H. Voluntary on-site compliance assessment dates:

N/A

I. Participation in a voluntary pollution reduction program:

N/A

J. Early compliance:

N/A

Sites Outside of Texas:

N/A