CRYSTAL CLEAR
SPECIAL UTILITY DISTRICT

RENEWAL WITHOUT CHANGES FOR THE CROSSINGS AT HAVENWOOD WASTEWATER TREATMENT FACILITY PERMIT NO. WQ0015266001

By:

M&S ENGINEERING
CIVIL | ELECTRICAL | STRUCTURAL | MEP
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ADMINISTRATIVE REPORT 1.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: Crystal Clear Special Utility District

PERMIT NUMBER: WQ0015266001

Indicate if each of the following items is included in your application.

	Y	N		Y	N
Administrative Report 1.0	☒	☐	Original USGS Map	☒	☐
Administrative Report 1.1	☒	☐	Affected Landowners Map	☐	☒
SPIF	☒	☐	Landowner Disk or Labels	☐	☒
Core Data Form	☒	☐	Buffer Zone Map	☐	☒
Technical Report 1.0	☒	☐	Flow Diagram	☒	☐
Technical Report 1.1	☐	☒	Site Drawing	☒	☐
Worksheet 2.0	☒	☐	Original Photographs	☐	☒
Worksheet 2.1	☐	☒	Design Calculations	☐	☒
Worksheet 3.0	☐	☒	Solids Management Plan	☐	☒
Worksheet 3.1	☐	☒	Water Balance	☐	☒
Worksheet 3.2	☐	☒			
Worksheet 3.3	☐	☒			
Worksheet 4.0	☐	☒			
Worksheet 5.0	☐	☒			
Worksheet 6.0	☒	☐			
Worksheet 7.0	☒	☐			

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region _____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT 1.0

If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 29)

Indicate the amount submitted for the application fee (check only one).

Flow	New/Major Amendment	Renewal
<0.05 MGD	$350.00 ☐	$315.00 ☐
≥0.05 but <0.10 MGD	$550.00 ☐	$515.00 ☐
≥0.10 but <0.25 MGD	$850.00 ☐	$815.00 ☒
≥0.25 but <0.50 MGD	$1,250.00 ☐	$1,215.00 ☐
≥0.50 but <1.0 MGD	$1,650.00 ☐	$1,615.00 ☐
≥1.0 MGD	$2,050.00 ☐	$2,015.00 ☐

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed Check/Money Order Number: 10298

Check/Money Order Amount: $815

Name Printed on Check: Crystal Clear Special Utility District

EPAY Voucher Number: Click here to enter text.

Copy of Payment Voucher enclosed? Yes ☐

Section 2. Type of Application (Instructions Page 29)

☐ New TPDES

☐ Major Amendment *with* Renewal

☐ Major Amendment *without* Renewal

☒ Renewal without changes

☐ New TLAP

☐ Minor Amendment *with* Renewal

☐ Minor Amendment *without* Renewal

☐ Minor Modification of permit

For amendments or modifications, describe the proposed changes: Click here to enter text

For existing permits:

Permit Number: WQ0015266001

EPA I.D. (TPDES only): TX0135488

Expiration Date: February 1, 2020

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 29)

A. The owner of the facility must apply for the permit.

What is the Legal Name of the entity (applicant) applying for this permit?

Crystal Clear Special Utility District

(The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal documents forming the entity.)

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at http://www15.tceq.texas.gov/crpub/

CN: 605149392

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Mike Taylor

Credential (P.E, P.G., Ph.D., etc.): Wastewater Operator for Crystal Clear

Title: General Manager

B. Co-applicant information. Complete this section only if another person or entity is required to apply as a co-permittee.

What is the Legal Name of the co-applicant applying for this permit?

N/A

(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the legal documents forming the entity.)

If the co-applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at: http://www15.tceq.texas.gov/crpub/

CN: N/A

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix (Mr., Ms., Miss): N/A

First and Last Name: N/A

Credential (P.E, P.G., Ph.D., etc.): N/A

Title: N/A

Provide a brief description of the need for a co-permittee: N/A

C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0.

Attachment: A

Section 4. Application Contact Information (Instructions Page 30)

This is the person(s) TCEQ will contact if additional information is needed about this application. Provide a contact for administrative questions and technical questions.

A. Prefix (Mr., Ms., Miss): Ms.

First and Last Name: Carla Brayton

Credential (P.E, P.G., Ph.D., etc.): E.I.T.

Title: Graduate Engineer

Organization Name: M&S Engineering

Mailing Address: 376 Landa Street

City, State, Zip Code: New Braunfels, Texas, 78130

Phone No.: (830) 228-4227 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: cbrayton@msengr.com

Check one or both: ☒ Administrative Contact ☒ Technical Contact

B. Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Brady Kosub

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Project Engineer

Organization Name: M&S Engineering

Mailing Address: 376 Landa Street

City, State, Zip Code: New Braunfels, Texas, 78130

Phone No.: (830) 228-4136 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: bkosub@msengr.com

Check one or both: ☒ Administrative Contact ☒ Technical Contact

Section 5. Permit Contact Information (Instructions Page 30)

Provide two names of individuals that can be contacted throughout the permit term.

A. Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Mike Taylor

Credential (P.E, P.G., Ph.D., etc.): Wastewater Operator

Title: General Manager

Organization Name: Crystal Clear Special Utility District

Mailing Address: 2370 FM 1979

City, State, Zip Code: San Marcos, Texas, 78666

Phone No.: (830) 372-2031 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: miket@crystalclearsud.org

B. Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Brady Kosub

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Project Engineer

Organization Name: M&S Engineering

Mailing Address: 376 Landa Street

City, State, Zip Code: New Braunfels, Texas, 78130

Phone No.: (830) 228-4136 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: bkosub@msengr.com

Section 6. Billing Information (Instructions Page 30)

The permittee is responsible for paying the annual fee. The annual fee will be assessed to permits ***in effect on September 1 of each year***. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (using form TCEQ-20029).

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Mike Taylor

Credential (P.E, P.G., Ph.D., etc.): Wastewater Operator

Title: General Manager

Organization Name: Crystal Clear Special Utility District

Mailing Address: 2370 FM 1979

City, State, Zip Code: San Marcos, Texas, 78666

Phone No.: (830) 372-1031 Ext.: N/A Fax No.: N/A

E-mail Address: miket@crystalclearsud.org

Section 7. DMR/MER Contact Information (Instructions Page 31)

Provide the name and complete mailing address of the person delegated to receive and submit Discharge Monitoring Reports (EPA 3320-1) or maintain Monthly Effluent Reports.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Mike Taylor

Credential (P.E, P.G., Ph.D., etc.): Wastewater Operator

Title: General Manager

Organization Name: Crystal Clear Special Utility District

Mailing Address: 2370 FM 1979

City, State, Zip Code: San Marcos, Texas, 78666

Phone No.: (830) 372-1031 Ext.: Fax No.:

E-mail Address: miket@crystalclearsud.org

DMR data is required to be submitted electronically. Create an account at: https://www.tceq.texas.gov/permitting/netdmr/netdmr.html.

Section 8. Public Notice Information (Instructions Page 31)

A. Individual Publishing the Notices

Prefix (Mr., Ms., Miss): Mr.

First and Last Name:Mike Taylor

Credential (P.E, P.G., Ph.D., etc.): Wastewater Operator

Title: General Manager

Organization Name: Crystal Clear Special Utility District

Mailing Address: 2370 FM 1979

City, State, Zip Code: San Marcos, Texas, 78666

Phone No.: (830) 372-1031 Ext.: Fax No.:

E-mail Address: miket@crystalclearsud.org

B. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package

Indicate by a check mark the preferred method for receiving the first notice and instructions:

☒ E-mail Address : miket@crystalclearsud.org & bkosub@msengr.com

☐ Fax

☐ Regular Mail

C. Contact person to be listed in the Notices

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Mike Taylor

Credential (P.E, P.G., Ph.D., etc.): Wastewater Operator

Title: General Manager

Organization Name: Crystal Clear Special Utility District

Phone No.: (830) 372-1031 Ext.:

E-mail: miket@crystalclearsud.org

D. Public Viewing Information

If the facility or outfall is located in more than one county, a public viewing place for each county must be provided.

Public building name: New Braunfels Public Library

Location within the building: Help Desk

Physical Address of Building: 700 E. Common Street

City: New Braunfels, Texas County: Comal

Contact Name: Deborah Martin

Phone No.: 830-221-4313 Ext.: N/A

E. Bilingual Notice Requirements:

This information **is required** for **new, major amendment, and renewal applications**. It is not required for minor amendment or minor modification applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

   ☒ Yes ☐ No

   If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

   ☒ Yes ☐ No

3. Do the students at these schools attend a bilingual education program at another location?

   ☐ Yes ☒ No

4. Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC §89.1205(g)?

   ☐ Yes ☒ No

5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? Spanish

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 33)

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN**107324121

Search the TCEQ's Central Registry at http://www15.tceq.texas.gov/crpub/ to determine if the site is currently regulated by TCEQ.

B. Name of project or site (the name known by the community where located):

The Crossing at Havenwood

C. Owner of treatment facility: Crystal Clear Special Utility District

Ownership of Facility: ☒ Public ☐ Private ☐ Both ☐ Federal

D. Owner of land where treatment facility is or will be:

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Crystal Clear Special Utility District

Mailing Address: 2370 FM 1979

City, State, Zip Code: San Marcos, Texas, 78666

Phone No.: (830) 372-1031 E-mail Address: miket@crystalclearsud.org

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: B

E. Owner of effluent disposal site:

Prefix (Mr., Ms., Miss): N/A

First and Last Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A E-mail Address: N/A

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: N/A

F. Owner of sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant):

Prefix (Mr., Ms., Miss): N/A

First and Last Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A E-mail Address: N/A

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: N/A

Section 10. TPDES Discharge Information (Instructions Page 34)

A. Is the wastewater treatment facility location in the existing permit accurate?

☒ Yes ☐ No

If **no**, **or a new permit application**, please give an accurate description:

N/A

B. Are the point(s) of discharge and the discharge route(s) in the existing permit correct?

☒ Yes ☐ No

If **no**, **or a new or amendment permit application**, provide an accurate description of the point of discharge and the discharge route to the nearest classified segment as defined in 30 TAC Chapter 307:

N/A

City nearest the outfall(s): New Braunfels

County in which the outfalls(s) is/are located: Comal County

Outfall Latitude: N29° 46' 38.6" Longitude: W98° 03' 30.1"

C. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

☐ Yes ☒ No

If **yes**, indicate by a check mark if:

☐ Authorization granted ☐ Authorization pending

For **new and amendment** applications, provide copies of letters that show proof of contact and the approval letter upon receipt.

Attachment: N/A

D. For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge.

N/A

Section 11. TLAP Disposal Information (Instructions Page 36)

A. For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

☐ Yes ☐ No

If **no, or a new or amendment permit application**, provide an accurate description of the disposal site location:

N/A

B. City nearest the disposal site: N/A

C. County in which the disposal site is located: N/A

D. Disposal Site Latitude: N/A Longitude: N/A

E. For **TLAPs**, describe the routing of effluent from the treatment facility to the disposal site:

N/A

F. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained:

N/A

Section 12. Miscellaneous Information (Instructions Page 37)

A. Is the facility located on or does the treated effluent cross American Indian Land?

☐ Yes ☒ No

B. If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate?

☐ Yes ☐ No ☒ Not Applicable

If No, or if a new onsite sludge disposal authorization is being requested in this permit

application, provide an accurate location description of the sewage sludge disposal site.

Click here to enter text.

C. Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?

☐ Yes ☒ No

If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application:

Click here to enter text.

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If **yes**, provide the following information:

Account number: Click here to enter text. Amount past due: Click here to enter text.

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If **yes**, please provide the following information:

Enforcement order number: Click here to enter text. Amount past due: Click here to enter text.

Section 13. Attachments (Instructions Page 38)

Indicate which attachments are included with the Administrative Report. Check all that apply:

☒ Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.

☒ Original full-size USGS Topographic Map with the following information:

- Applicant's property boundary
- Treatment facility boundary
- Labeled point of discharge for each discharge point (TPDES only)
- Highlighted discharge route for each discharge point (TPDES only)
- Onsite sewage sludge disposal site (if applicable)
- Effluent disposal site boundaries (TLAP only)
- New and future construction (if applicable)
- 1 mile radius information

- 3 miles downstream information (TPDES only)
- All ponds.

☐ Attachment 1 for Individuals as co-applicants

☒ Other Attachments. Please specify: Core Data Form

Section 14. Signature Page (Instructions Page 39)

If co-applicants are necessary, each entity must submit an original, separate signature page.

Permit Number: WQ0015266001

Applicant: Crystal Clear Special Utility District

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code § 305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed): Mike Taylor

Signatory title: General Manager

Signature: _____ Date: 11-22-19

(Use blue ink)

Subscribed and Sworn to before me by the said Mike Taylor

on this 22nd day of November, 20 19.

My commission expires on the 18th day of December, 20 21.

_____

Notary Public

[SEAL]

Abigail Garcia Aguilar
Notary Public, State of Texas
My Comm. Exp. 12-18-2021
Notary ID 13138683-7

Guadalupe

County, Texas

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:

Application type: _____Renewal _____Major Amendment ____Minor Amendment _____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

_____ Texas Historical Commission _____ U.S. Fish and Wildlife

_____ Texas Parks and Wildlife Department _____ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 53)

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

Do not refer to a response of any item in the permit application form. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee: Crystal Clear Special Utility District

   Permit No. WQ00 15266001 EPA ID No. TX 0135488

   Address of the project (or a location description that includes street/highway, city/vicinity, and county):

   The project is located on the south side of FM 1102 directly across from the Havenwood subdivision. The site 3.3 miles northeast of HWY 306 and FM 1102 intersection in New Braunfels.

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Brady Kosub

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Project Engineer

Mailing Address: 376 Landa Street

City, State, Zip Code: New Braunfels, Texas, 78130

Phone No.: (830) 228-4136 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: bkosub@msengr.com

2. List the county in which the facility is located: Click here to enter text.
3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

Crystal Clear Special Utility District

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

The treated effluent is discharged to the Water Hole Creek; thence to Soil Conservation Service (SCS) Site 3 Reservoir; thence to Water Hole Creek; thence to York Creek; thence to Lower San Marcos River in Segment No. 1808 of the Guadalupe River Basin.

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- ☒ Proposed access roads, utility lines, construction easements
- ☐ Visual effects that could damage or detract from a historic property's integrity
- ☒ Vibration effects during construction or as a result of project design
- ☒ Additional phases of development that are planned for the future
- ☐ Sealing caves, fractures, sinkholes, other karst features

☒ Disturbance of vegetation or wetlands

6. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

The construction has impacted approximately 11.46 acres of brush land. No caves or other karst features are known to be present at the site.

7. Describe existing disturbances, vegetation, and land use:

The existing site contains driveways, electrical easements, over-head electric and vegetation consistent with the local flow which will be cleated as needed.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

8. List construction dates of all buildings and structures on the property:

N/A

9. Provide a brief history of the property, and name of the architect/builder, if known.

N/A

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DOMESTIC TECHNICAL REPORT 1.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION

DOMESTIC TECHNICAL REPORT 1.0

The Following Is Required For All Applications

Renewal, New, And Amendment

Section 1. Permitted or Proposed Flows (Instructions Page 51)

A. Existing/Interim I Phase

Design Flow (MGD): 0.0373 MGD

2-Hr Peak Flow (MGD): 0.1492 MGD

Estimated construction start date: January 2016

Estimated waste disposal start date: June 2018

B. Interim II Phase

Design Flow (MGD): N/A

2-Hr Peak Flow (MGD): N/A

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

C. Final Phase

Design Flow (MGD): 0.100 MGD

2-Hr Peak Flow (MGD): 0.400 MGD

Estimated construction start date: TBD

Estimated waste disposal start date: TBD

D. Current operating phase: Existing Phase

Provide the startup date of the facility: January 2016

Section 2. Treatment Process (Instructions Page 51)

A. Treatment process description

Provide a detailed description of the treatment process. **Include the type of**

treatment plant, mode of operation, and all treatment units. Start with the plant's head works and finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed in the permit, a description of *each phase* must be provided**. Process description:

See Attachment D: Domestic Technical Report Section 2, Part A

Port or pipe diameter at the discharge point, in inches: 3-inches

B. Treatment Units

In Table 1.0(1), provide the treatment unit type, the number of units, and dimensions (length, width, depth) **of each treatment unit, accounting for *all* phases of operation**.

Table 1.0(1) – Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Aerobic digestion recirculation & filtration pods	9	42' x 7.5' x 8'

C. Process flow diagrams

Provide flow diagrams for the existing facilities and **each** proposed phase of construction.

Attachment: E

Section 3. Site Drawing (Instructions Page 52)

Provide a site drawing for the facility that shows the following:

- The boundaries of the treatment facility;
- The boundaries of the area served by the treatment facility;
- If land disposal of effluent, the boundaries of the disposal site and all storage/holding ponds; and
- If sludge disposal is authorized in the permit, the boundaries of the land application or disposal site.

Attachment: F

Provide the name and a description of the area served by the treatment facility.

The Crossing at Havenwood Wastewater Treatment Facility (WWTF) will treat effluent from the Crossing at Havenwood and Spencerland developments. These developments are located northeast of the City of New Braunfels, west of I-35 corridor at the intersection of FM 1102 and Havenwood Blvd. A total of 494 residential lots will be served by the WWTF.

Section 4. Unbuilt Phases (Instructions Page 52)

Is the application for a renewal of a permit that contains an unbuilt phase or phases?

Yes ☒ No ☐

If yes, does the existing permit contain a phase that has not been constructed within five years of being authorized by the TCEQ?

Yes ☐ No ☒

If yes, provide a detailed discussion regarding the continued need for the unbuilt phase. Failure to provide sufficient justification may result in the Executive Director recommending denial of the unbuilt phase or phases.

N/A

Section 5. Closure Plans (Instructions Page 53)

Have any treatment units been taken out of service permanently, or will any units be taken out of service in the next five years?

Yes ☐ No ☒

If yes, was a closure plan submitted to the TCEQ?

Yes ☐ No ☐

If yes, provide a brief description of the closure and the date of plan approval.

N/A

Section 6. Permit Specific Requirements (Instructions Page 53)

For applicants with an existing permit, check the *Other Requirements* or *Special Provisions* of the permit.

A. Summary transmittal

Have plans and specifications been approved for the existing facilities and each proposed phase?

Yes ☒ No ☐

If yes, provide the date(s) of approval for each phase: September 18,2019

Provide information, including dates, on any actions taken to meet a requirement or provision pertaining to the submission of a summary transmittal letter. Provide a copy of an approval letter from the TCEQ, if applicable.

Attachment G is the approved permit for the current and proposed phase, issued on September 18,2019.

B. Buffer zones

Have the buffer zone requirements been met?

Yes ☒ No ☐

Provide information below, including dates, on any actions taken to meet the conditions of the buffer zone. If available, provide any new documentation relevant to maintaining the buffer zones.

The buffer zone for the WWTP has been established in the approved permit. Existing buffer zone is still maintained.

C. Other actions required by the current permit

Does the *Other Requirements* or *Special Provisions* section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc.

Yes ☒ No ☐

If yes, provide information below on the status of any actions taken to meet the conditions of an *Other Requirement* or *Special Provision*.

Special provision states to submit a summary transmittal letter in accordance with the requirements in 30 TAC 217.6 (d) prior to construction of the final phase. Construction for final phase has not been determined yet but will notify TCEQ as requested prior to it.

D. Grit and grease treatment

1. Acceptance of grit and grease waste

Does the facility have a grit and/or grease processing facility onsite that treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?

Yes ☐ No ☒

If No, stop here and continue with Subsection E. Stormwater Management.

2. Grit and grease processing

Describe below how the grit and grease waste is treated at the facility. In your description, include how and where the grit and grease is introduced to the treatment works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility.

Click here to enter text.

3. Grit disposal

Does the facility have a Municipal Solid Waste (MSW) registration or permit for grit disposal?

Yes ☐ No ☐

If No, contact the TCEQ Municipal Solid Waste team at 512-239-0000. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

Click here to enter text.

4. Grease and decanted liquid disposal

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-0000.

Describe how the decant and grease are treated and disposed of after grit separation.

Click here to enter text.

E. Stormwater management

1. Applicability

Does the facility have a design flow of 1.0 MGD or greater in any phase?

Yes ☐ No ☒

Does the facility have an approved pretreatment program, under 40 CFR Part 403?

Yes ☐ No ☒

If no to both of the above, then skip to Subsection F, Other Wastes Received.

2. MSGP coverage

Is the stormwater runoff from the WWTP and dedicated lands for sewage disposal currently permitted under the TPDES Multi-Sector General Permit (MSGP), TXR050000?

Yes ☐ No ☐

If yes, please provide MSGP Authorization Number and skip to Subsection F, Other Wastes Received:

TXR05 Click here to enter text or TXRNE Click here to enter text

If no, do you intend to seek coverage under TXR050000?

Yes ☐ No ☐

3. Conditional exclusion

Alternatively, do you intend to apply for a conditional exclusion from permitting based TXR050000 (Multi Sector General Permit) Part II B.2 or TXR050000 (Multi Sector General Permit) Part V, Sector T 3(b)?

Yes ☐ No ☐

If yes, please explain below then proceed to Subsection F, Other Wastes Received:

Click here to enter text

4. Existing coverage in individual permit

Is your stormwater discharge currently permitted through this individual TPDES or TLAP permit?

Yes ☐ No ☐

If yes, provide a description of stormwater runoff management practices at the site that are authorized in the wastewater permit then skip to Subsection F, Other Wastes Received.

Click here to enter text.

5. Zero stormwater discharge

Do you intend to have no discharge of stormwater via use of evaporation or other means?

Yes ☐ No ☐

If yes, explain below then skip to Subsection F. Other Wastes Received.

Click here to enter text.

Note: If there is a potential to discharge any stormwater to surface water in the state as the result of any storm event, then permit coverage is required under the MSGP or an individual discharge permit. This requirement applies to all areas of facilities with treatment plants or systems that treat, store, recycle, or reclaim domestic sewage, wastewater or sewage sludge (including dedicated lands for sewage sludge disposal located within the onsite property boundaries) that meet the applicability criteria of above. You have the option of obtaining coverage under the MSGP for direct discharges, (recommended), or obtaining coverage under this individual permit.

6. Request for coverage in individual permit

Are you requesting coverage of stormwater discharges associated with your treatment plant under this individual permit?

Yes ☐ No ☐

If yes, provide a description of stormwater runoff management practices at the site for which you are requesting authorization in this individual wastewater permit and describe whether you intend to comingle this discharge with your treated effluent or discharge it via a separate dedicated stormwater outfall. Please also indicate if you intend to divert stormwater to the treatment plant headworks and indirectly discharge it to water in the state.

Click here to enter text.

Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?
Yes ☐ No ☒

If yes, a Sewage Sludge Solids Management Plan is required. See Example 5 in the instructions.

G. Other wastes received including sludge from other WWTPs and septic waste

1. Acceptance of sludge from other WWTPs

Does the facility accept or will it accept sludge from other treatment plants at the facility site?
Yes ☐ No ☒

If yes, attach sewage sludge solids management plan. See Example 5 of the instructions.

In addition, provide the date that the plant started accepting sludge or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the sludge, and the design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Click here to enter text.

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

Yes ☐ No ☒

If yes, does the facility have a Type V processing unit?

Yes ☐ No ☐

If yes, does the unit have a Municipal Solid Waste permit?

Yes ☐ No ☐

If yes to any of the above, provide a the date that the plant started accepting septic waste, or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the septic waste, and the design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Click here to enter text.

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

3. Acceptance of other wastes (not including septic, grease, grit, or RCRA, CERCLA or as discharged by IUs listed in Worksheet 6)

Is the facility accepting or will it accept wastes that are not domestic in nature excluding the categories listed above?

Yes ☐ No ☒

If yes, provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or other physical characteristic of the waste. Also note if this information has or has not changed since the last permit action.

Click here to enter text.

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

Is the facility in operation?

Yes ☒ No ☐

If no, this section is not applicable. Proceed to Section 8.

If yes, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). **W*ater treatment facilities*** discharging filter backwash water, complete Table 1.0(3).

Note: The sample date must be within 1 year of application submission.

Table 1.0(2) - Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	**Average Conc.**	**Max Conc.**	**No. of Samples**	**Sample Type**	**Sample Date/Time**
$CBOD_5$, mg/l	--	3	1	Grab	10/31/2019
Total Suspended Solids, mg/l	--	<1	1	Grab	10/29/2019
Ammonia Nitrogen, mg/l	--	0.05	1	Grab	10/29/2019
Nitrate Nitrogen, mg/l	--	38.9	1	Grab	10/29/2019
Total Kjeldahl Nitrogen, mg/l	--	<0.20	1	Grab	10/29/2019
Sulfate, mg/l	--	38.1	1	Grab	10/29/2019
Chloride, mg/l	--	107	1	Grab	10/29/2019
Total Phosphorus, mg/l	--	5.45	1	Grab	10/29/2019
pH, standard units	--	7.3	1	Grab	10/29/2019
Dissolved Oxygen*, mg/l	--	7.0	1	Grab	10/29/2019
Chlorine Residual, mg/l	--	3.0	1	Grab	10/29/2019
E.coli (CFU/100ml) freshwater	--	--	--	--	--
Entercocci (CFU/100ml)	--	--	--	--	--

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
saltwater					
Total Dissolved Solids, mg/l	--	666	1	Grab	10/29/2019
Electrical Conductivity, µmohs/cm, †	--	--	--	--	--
Oil & Grease, mg/l	--	No	1	Grab	03/28/2019
Alkalinity ($CaCO_3$)*, mg/l	--	177	1	Grab	10/29/2019

*TPDES permits only

†TLAP permits only

Table 1.0(3) - Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l					
Total Dissolved Solids, mg/l					
pH, standard units					
Fluoride, mg/l					
Aluminum, mg/l					
Alkalinity ($CaCO_3$), mg/l					

Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: Michael Taylor

Facility Operator's License Classification and Level: Class A

Facility Operator's License Number: WW0009531

Section 9. Sewage Sludge Management and Disposal (Instructions Page 60)

A. Sludge disposal method

Identify the current or anticipated sludge disposal method or methods from the

following list. Check all that apply.

☒ Permitted landfill

☐ Permitted or Registered land application site for beneficial use

☐ Land application for beneficial use authorized in the wastewater permit

☐ Permitted sludge processing facility

☐ Marketing and distribution as authorized in the wastewater permit

☐ Composting as authorized in the wastewater permit

☐ Permitted surface disposal site (sludge monofill)

☐ Surface disposal site (sludge monofill) authorized in the wastewater permit

☐ Transported to another permitted wastewater treatment plant or permitted sludge processing facility. If you selected this method, a written statement or contractual agreement from the wastewater treatment plant or permitted sludge processing facility accepting the sludge must be included with this application.

☒ Other: Sludge is contained in the interceptor tanks at the home units. The sludge is collected from the interceptor tanks and sent to a TCEQ approved site.

B. Sludge disposal site

Disposal site name: N/A

TCEQ permit or registration number: Disposal site has not been selected yet.

County where disposal site is located: N/A

C. Sludge transportation method

Method of transportation (truck, train, pipe, other): Method will be truck

Name of the hauler: Not Assigned Yet

Hauler registration number: N/A

Sludge is transported as a:

Liquid ☐ semi-liquid ☒ semi-solid ☐ solid ☐

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

Does the existing permit include authorization for land application of sewage sludge for beneficial use?

Yes ☐ No ☒

If yes, are you requesting to continue this authorization to land apply sewage sludge for beneficial use?

Yes ☐ No ☐

If yes, is the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)** attached to this permit application (see the instructions for details)?

Yes ☐ No ☐

B. Sludge processing authorization

Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?

Sludge Composting	Yes ☐	No ☒
Marketing and Distribution of sludge	Yes ☐	No ☒
Sludge Surface Disposal or Sludge Monofill	Yes ☐	No ☒
Temporary storage in sludge lagoons	Yes ☐	No ☒

If yes to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)** attached to this permit application?

Yes ☐ No ☐

Section 11. Sewage Sludge Lagoons (Instructions Page 61)

Does this facility include sewage sludge lagoons?

Yes ☐ No ☒

If yes, complete the remainder of this section. If no, proceed to Section 12.

A. Location information

The following maps are required to be submitted as part of the application. For each map, provide the Attachment Number.

- Original General Highway (County) Map:

  Attachment: Click here to enter text.

- USDA Natural Resources Conservation Service Soil Map:

  Attachment: Click here to enter text.

- Federal Emergency Management Map:

  Attachment: Click here to enter text.

- Site map:

  Attachment: Click here to enter text.

Discuss in a description if any of the following exist within the lagoon area.

Check all that apply.

☐ Overlap a designated 100-year frequency flood plain

☐ Soils with flooding classification

☐ Overlap an unstable area

☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

Attachment: Click here to enter text.

If a portion of the lagoon(s) is located within the 100-year frequency flood plain, provide the protective measures to be utilized including type and size of protective structures:

Click here to enter text.

B. Temporary storage information

Provide the results for the pollutant screening of sludge lagoons. These results are in addition to pollutant results in Section 7 of Technical Report 1.0.

Nitrate Nitrogen, mg/kg: Click here to enter text.

Total Kjeldahl Nitrogen, mg/kg: Click here to enter text.

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: Click here to enter text.

Phosphorus, mg/kg: Click here to enter text.

Potassium, mg/kg: Click here to enter text.

pH, standard units: Click here to enter text.

Ammonia Nitrogen mg/kg: Click here to enter text.

Arsenic: Click here to enter text.

Cadmium: Click here to enter text.

Chromium: Click here to enter text.

Copper: Click here to enter text.

Lead: Click here to enter text.

Mercury: Click here to enter text.

Molybdenum: Click here to enter text.

Nickel: Click here to enter text.

Selenium: Click here to enter text.

Zinc: Click here to enter text.

Total PCBs: Click here to enter text.

Provide the following information:

Volume and frequency of sludge to the lagoon(s): Click here to enter text.

Total dry tons stored in the lagoons(s) per 365-day period: Click here to enter text.

Total dry tons stored in the lagoons(s) over the life of the unit: Click here to enter text.

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of $1x10^{-7}$ cm/sec?

Yes ☐ No ☐

If yes, describe the liner below. Please note that a liner is required.

Click here to enter text.

D. Site development plan

Provide a detailed description of the methods used to deposit sludge in the lagoon(s):

Click here to enter text.

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)

  Attachment: Click here to enter text.

- Copy of the closure plan

  Attachment: Click here to enter text.

- Copy of deed recordation for the site

  Attachment: Click here to enter text.

- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

  Attachment: Click here to enter text.

- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  Attachment: Click here to enter text.

- Procedures to prevent the occurrence of nuisance conditions

  Attachment: Click here to enter text.

E. Groundwater monitoring

Is groundwater monitoring currently conducted at this site, or are any wells available for groundwater monitoring, or are groundwater monitoring data otherwise available for the sludge lagoon(s)?

Yes ☐ No ☐

If groundwater monitoring data are available, provide a copy. Provide a profile of soil types encountered down to the groundwater table and the depth to the shallowest groundwater as a separate attachment.

Attachment: Click here to enter text.

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 63)

A. Additional authorizations

Does the permittee have additional authorizations for this facility, such as reuse authorization, sludge permit, etc?

Yes ☐ No ☒

If yes, provide the TCEQ authorization number and description of the authorization:

Click here to enter text.

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

Yes ☐ No ☒

Is the permittee required to meet an implementation schedule for compliance or enforcement?

Yes ☐ No ☒

If yes to either question, provide a brief summary of the enforcement, the implementation schedule, and the current status:

Click here to enter text.

Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

A. RCRA hazardous wastes

Has the facility received in the past three years, does it currently receive, or will it receive RCRA hazardous waste?

Yes ☐ No ☒

B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will

it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

Yes ☐ No ☒

C. Details about wastes received

If yes to either Subsection A or B above, provide detailed information concerning these wastes with the application.

Attachment: Click here to enter text.

Section 14. Laboratory Accreditation (Instructions Page 64)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
  - periodically inspected by the TCEQ; or
  - located in another state and is accredited or inspected by that state; or
  - performing work for another company with a unit located in the same site; or
  - performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review *30 TAC Chapter 25* for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.*

Printed Name: Mike Taylor

Title: General Manager

Signature: _____

Date: 10-23-2019

DOMESTIC TECHNICAL REPORT WORKSHEET 2.0

DOMESTIC TECHNICAL REPORT WORKSHEET 2.0

RECEIVING WATERS

The following is required for all TPDES permit applications

Section 1. Domestic Drinking Water Supply (Instructions Page 73)

Is there a surface water intake for domestic drinking water supply located within 5 miles downstream from the point or proposed point of discharge?

Yes ☐ No ☒

If yes, provide the following:
Owner of the drinking water supply: Click here to enter text.

Distance and direction to the intake: Click here to enter text.

Attach a USGS map that identifies the location of the intake.

Attachment: Click here to enter text.

Section 2. Discharge into Tidally Affected Waters (Instructions Page 73)

Does the facility discharge into tidally affected waters?

Yes ☐ No ☒

If yes, complete the remainder of this section. If no, proceed to Section 3.

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: N/A

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

Yes ☐ No ☐

If yes, provide the distance and direction from outfall(s).

N/A

C. Sea grasses

Are there any sea grasses within the vicinity of the point of discharge?

Yes ☐ No ☐

If yes, provide the distance and direction from the outfall(s).

N/A

Section 3. Classified Segments (Instructions Page 73)

Is the discharge directly into (or within 300 feet of) a classified segment?

Yes ☐ No ☒

If yes, this Worksheet is complete.

If no, complete Sections 4 and 5 of this Worksheet.

Section 4. Description of Immediate Receiving Waters (Instructions Page 75)

Name of the immediate receiving waters: Water Hole Creek

A. Receiving water type

Identify the appropriate description of the receiving waters.

☒ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: Click here to enter text.

Average depth of the entire water body, in feet: Click here to enter text.

Average depth of water body within a 500-foot radius of discharge point, in feet: Click here to enter text.

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click here to enter text.

B. Flow characteristics

If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one).

☒ Intermittent - dry for at least one week during most years

☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses

☐ Perennial - normally flowing

Check the method used to characterize the area upstream (or downstream for new dischargers).

☐ USGS flow records

☐ Historical observation by adjacent landowners

☒ Personal observation

☐ Other, specify: Click here to enter text.

C. Downstream perennial confluences

List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point.

N/A

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

Yes ☒ No ☐

If yes, discuss how.

The receiving water changes into a reservoir named Soil Conservation Service Site 3.

E. Normal dry weather characteristics

Provide general observations of the water body during normal dry weather conditions.

Wet

Date and time of observation: 1/10/2019

Was the water body influenced by stormwater runoff during observations?

Yes ☐ No ☒

Section 5. General Characteristics of the Waterbody (Instructions Page 74)

A. Upstream influences

Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

- ☐ Oil field activities
- ☐ Upstream discharges
- ☒ Septic tanks
- ☒ Urban runoff
- ☐ Agricultural runoff
- ☐ Other(s), specify Click here to enter text

B. Waterbody uses

Observed or evidences of the following uses. Check all that apply.

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation

☐ Domestic water supply ☐ Industrial water supply

☐ Park activities ☒ Other(s), specify Dry-Creek (run-off)

C. Waterbody aesthetics

Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional

☒ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored

☐ Common Setting: not offensive; developed but uncluttered; water may be colored or turbid

☐ Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

WORKSHEET 6.0

DOMESTIC WORKSHEET 6.0

INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works (POTWs)

Section 1. All POTWs (Instructions Page 99)

A. Industrial users

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs – non-categorical, and Other IUs.

If there are no users, enter 0 (zero).

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

Yes ☐ No ☒

If yes, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

Click here to enter text

C. Treatment plant pass through

In the past three years, has your POTW experienced pass through (see instructions)?

Yes ☐ No ☒

If yes, identify the dates, duration, a description of the pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IUs that may have caused pass through.

Click here to enter text.

D. Pretreatment program

Does your POTW have an approved pretreatment program?

Yes ☐ No ☒

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

Yes ☐ No ☒

If yes, complete Section 2.c. and 2.d. only, and skip Section 3.

If no to either question above, skip Section 2 and complete Section 3 for each significant industrial user and categorical industrial user.

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 100)

A. Substantial modifications

Have there been any **substantial modifications** to the approved pretreatment program that have not been submitted to the TCEQ for approval according to *40 CFR §403.18*?

Yes ☐ No ☒

If yes, identify the modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click here to enter text.

B. Non-substantial modifications

Have there been any **non-substantial modifications** to the approved pretreatment program that have not been submitted to TCEQ for review and acceptance?

Yes ☐ No ☒

If yes, identify all non-substantial modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click here to enter text.

C. Effluent parameters above the MAL

In Table 6.0(1), list all parameters measured above the MAL in the POTW's effluent monitoring during the last three years. Submit an attachment if necessary.

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

Has any SIU, CIU, or other IU caused or contributed to any problems (excluding interferences or pass throughs) at your POTW in the past three years?

Yes ☐ No ☒

If yes, identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.

Click here to enter text

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 100)

A. General information

Company Name: N/A

SIC Code: N/A

Telephone number: N/A Fax number: N/A

Contact name: N/A

Address: N/A

City, State, and Zip Code: N/A

B. Process information

Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).

N/A

C. Product and service information

Provide a description of the principal product(s) or services performed.

N/A

D. Flow rate information

See the Instructions for definitions of "process" and "non-process wastewater."

Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the instructions?

Yes ☐ No ☒

Is the SIU or CIU subject to categorical pretreatment standards found in *40 CFR Parts 405-471*?

Yes ☐ No ☒

If subject to categorical pretreatment standards, indicate the applicable category and subcategory for each categorical process.

Category: N/A
Subcategories: N/A

Category: N/A
Subcategories: N/A

Category: N/A
Subcategories: N/A

Category: N/A
Subcategories: N/A

Category: N/A
Subcategories: N/A

F. Industrial user interruptions

Has the SIU or CIU caused or contributed to any problems (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?

Yes ☐ No ☒

If yes, identify the SIU, describe each episode, including dates, duration, description of problems, and probable pollutants.

N/A

WORKSHEET 7.0

WORKSHEET 7.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit to:
TCEQ
IUC Permits Team
Radioactive Materials Division
MC-233
PO Box 13087
Austin, Texas 78711-3087
512-239-6466

For TCEQ Use Only
Reg. No._____
Date Received_____
Date Authorized_____

Section 1. General Information (Instructions Page 102)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): TPDES

Program ID: WQ0015266001

Contact Name: N/A

Phone Number: N/A

2. Agent/Consultant Contact Information

Contact Name: Brady Kosub, P.E.

Address: 376 Landa Street

City, State, and Zip Code: New Braunfels, Texas, 78130

Phone Number: (830) 228-4136

3. Owner/Operator Contact Information

Owner ☒ Operator ☐

Owner/Operator Name: Crystal Clear Special Utility District

Contact Name: Mike Taylor

Address: 2370 FM 1979

City, State, and Zip Code: San Marcos, Texas, 78666

Phone Number: (830) 372-1031

4. Facility Contact Information

Facility Name: The Crossing at Havenwood Treatment Facility

Address: 5979 FM 1102

City, State, and Zip Code: New Braunfels, Texas 78132

Location description (if no address is available): Location is approximately on the south side of FM 1102 from the Havenwood subdivision, and 3.3 miles northeast of HWY 306 and FM 110.

Facility Contact Person: Mike Taylor

Phone Number: (830) 372-1031

5. Latitude and Longitude, in degrees-minutes-seconds

Latitude: 29.777334 Longitude: -98.058492

Method of determination (GPS, TOPO, etc.): Google Earth

Attach topographic quadrangle map as attachment A.

6. Well Information

Type of Well Construction, select one:

- ☐ Vertical Injection
- ☐ Subsurface Fluid Distribution System
- ☐ Infiltration Gallery
- ☐ Temporary Injection Points
- ☒ Other, Specify: N/A

Number of Injection Wells: N/A

7. Purpose

Detailed Description regarding purpose of Injection System:

N/A

Attach a Site Map as Attachment B (Attach the Approved Remediation Plan, if appropriate.)

8. Water Well Driller/Installer

Water Well Driller/Installer Name: Click here to enter text.

City, State, and Zip Code: Click here to enter text.

Phone Number: Click here to enter text.

License Number: Click here to enter text.

Section 2. Proposed Down Hole Design

Attach a diagram signed and sealed by a licensed engineer as Attachment C.

Table 7.0(1) –Down Hole Design Table

Name of String	Size	Setting Depth	Sacks Cement/Grout – Slurry Volume – Top of Cement	Hole Size	Weight (lbs/ft) PVC/Steel
Casing	N/A				
Tubing	N/A				
Screen	N/A				

Section 3. Proposed Trench System, Subsurface Fluid Distribution System, or Infiltration Gallery

Attach a diagram signed and sealed by a licensed engineer as Attachment D.

System(s) Dimensions: N/A

System(s) Construction: N/A

Section 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: N/A
2. Receiving Formation Name of Injection Zone: N/A
3. Well/Trench Total Depth: N/A
4. Surface Elevation: N/A
5. Depth to Ground Water: N/A
6. Injection Zone Depth: N/A
7. Injection Zone vertically isolated geologically? Yes ☐ No ☒

Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:

Name: N/A

Thickness: N/A

8. Provide a list of contaminants and the levels (ppm) in contaminated aquifer

Attach as Attachment E.

9. Horizontal and Vertical extent of contamination and injection plume

Attach as Attachment F.

10. Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc.

Attach as Attachment G.

11. Injection Fluid Chemistry in PPM at point of injection

Attach as Attachment H.

12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: N/A

13. Maximum injection Rate/Volume/Pressure: N/A

14. Water wells within 1/4 mile radius (attach map as Attachment I): N/A

15. Injection wells within 1/4 mile radius (attach map as Attachment J): N/A

16. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): N/A

17. Sampling frequency: N/A

18. Known hazardous components in injection fluid: N/A

Section 5. Site History

1. Type of Facility: N/A

2. Contamination Dates: N/A

3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations (attach as Attachment L): N/A

4. Previous Remediation: N/A

Attach results of any previous remediation as attachment M

NOTE: Authorization Form should be completed in detail and authorization given by the TCEQ before construction, operation, and/or conversion can begin. Attach additional pages as necessary.

Class V Injection Well Designations

5A07	Heat Pump/AC return (IW used for groundwater to heat and/or cool buildings)
5A19	Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)
5B22	Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an aquifer)
5D02	Storm Water Drainage (IW designed for the disposal of rain water)
5D04	Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)
5F01	Agricultural Drainage (IW that receive agricultural runoff)
5R21	Aquifer Recharge (IW used to inject fluids to recharge an aquifer)
5S23	Subsidence Control Wells (IW used to control land subsidence caused by ground water withdrawal)
5W09	Untreated Sewage
5W10	Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)
5W11	Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)
5W12	WTTP disposal
5W20	Industrial Process Waste Disposal Wells
5W31	Septic System (Well Disposal method)
5W32	Septic System Drainfield Disposal
5X13	Mine Backfill (IW used to control subsidence, dispose of mining byproducts, and/or fill sections of a mine)
5X25	Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)
5X26	Aquifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW)
5X27	Other Wells
5X28	Motor Vehicle Waste Disposal Wells (IW used to dispose of waste from a motor vehicle site - These are currently banned)
5X29	Abandoned Drinking Water Wells (waste disposal)

ATTACHMENT A

CORE DATA FORM

TCEQ Core Data Form

TCEQ Use Only

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)

☐ New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)

☒ Renewal (Core Data Form should be submitted with the renewal form) ☐ Other

2. Customer Reference Number (if issued): CN 605149392

Follow this link to search for CN or RN numbers in Central Registry**

3. Regulated Entity Reference Number (if issued): RN 107324121

SECTION II: Customer Information

4. General Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy): Not Applicable

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name (If an individual, print last name first: e.g.: Doe, John): Crystal Clear Special Utility District

If new Customer, enter previous Customer below:

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
N/A	N/A	N/A	N/A

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ State ☒ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees: ☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated? ☐ Yes ☒ No

14. Customer Role (Proposed or Actual) - as it relates to the Regulated Entity listed on this form. Please check one of the following:

☒ Owner ☐ Operator ☐ Owner & Operator

☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address: 2370 FM 1979

City	State	ZIP	ZIP + 4
San Marcos	TX	78666	2100

16. Country Mailing Information (if outside USA):

17. E-Mail Address (if applicable): miket@crystalclearsud.org

18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)
(830) 372-1031		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If `New Regulated Entity" is selected below this form should be accompanied by a permit application)

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)

The Crossing At Havenwood WWTP

23. Street Address of the Regulated Entity: (No PO Boxes)	5975 FM 1102						
	City: New Braunfels	State: TX	ZIP: 78132	ZIP +: 3410			
24. County							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	On the south side of FM 1102 from the Havenwood subdivision. Site is 3.3 miles northeast of Hwy 306 and FM 1102 intersection				
26. Nearest City		State	Nearest ZIP Code		
New Braunfels		TX	78132		
27. Latitude (N) In Decimal:	29.4850	28. Longitude (W) In Decimal:	98		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	47	10	98	03	11

29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)
1521			

33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)

Residential Subdivision

34. Mailing Address:	2370 FM 1979						
	City: San Marcos	State: TX	ZIP: 78666	ZIP + 4: 2100			
35. E-Mail Address:	miket@crystalclearsud.org						

36. Telephone Number	37. Extension or Code	38. Fax Number (if applicable)
(830) 372-1031		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	41. Title:		
Brady Kosub, P.E.	Project Engineer		
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(830) 228 - 4136		( ) -	bkosub@msengr.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	M&S Engineering	Job Title:	Project Engineer
Name(*In Print*):	Brady Kosub, P.E.	Phone:	830 228 4136
			11/19/2019

ATTACHMENT B

SPECIAL WARRANTY DEED

7/C

201606016600 04/25/2016 02:13:41 PM 1/7

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

SPECIAL WARRANTY DEED

THE STATE OF TEXAS §
§ KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF COMAL §

Grantor: SOUTHSTAR AT SPENCER LAND, LLC, a Texas limited liability company
P. O. Box 630105
Irving, Texas 75063

Grantee: CRYSTAL CLEAR SPECIAL UTILITY DISTRICT
2370 FM 1979
San Marcos, Texas 78666

That Grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) cash and other good and valuable consideration to it in hand paid by Grantee, the receipt of which is hereby acknowledged and confessed has GRANTED, SOLD and CONVEYED, and by these presents does GRANT, SELL and CONVEY, unto the Grantee, the Property described herein to wit:

> BEING a 2.301 acre tract of land situated in the Nancy Kenner Survey No. 3, Abstract No. 306, Comal County, Texas, and out of The Crossings at Havenwood, Unit 1, plat recorded in Document # 201506048119, Official Map and Plat Records, Comal County, Texas, said 2.301 acre tract being more particularly described by metes and bounds on the attached Exhibit A which is incorporated herein by reference for all purposes (hereinafter the "Property").

TO HAVE AND TO HOLD the Property, together with all and singular the rights and appurtenances thereto in anyway belonging, unto Grantee, its heirs and assigns forever; and Grantor does hereby bind itself, its heirs, successors and assigns, to WARRANT AND FOREVER DEFEND all and singular the Property unto the Grantee, its heirs and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof, when the claim is by, through or under Grantor, but not otherwise.

THIS CONVEYANCE IS MADE AND ACCEPTED by Grantee SUBJECT TO (i) taxes for the current year, which have been prorated as of the date of closing, the payment of which Grantee assumes; (ii) all subsequent tax assessments for the current year, the payment of which Grantee assumes; (iii) all restrictions, covenants, conditions, easements, reservations, leases, mineral severances, and other instruments that affect the Property and as may be shown in the public records of Comal County, Texas; (iv) all zoning laws, regulations and ordinances of municipal and/or other governmental authorities that affect the Property and (v) the items listed below:

1. Subject to those items, restrictions, building setback lines, easements and Notes shown on the plat recorded in Document #201506048119, Official Map and Plat Records, Comal County, Texas, as well as the covenants, conditions and restrictions set out under the area described as "Notes".

2. Easement and Right of Way to Comal Power Company recorded in Volume 51, Page 460, Official Deed Records, Comal County, Texas;

3. Subject to the Declaration of Conditions, Covenants and Restrictions for The Crossings at Havenwood, recorded at Clerk's Document #201506048478, Document #201506048809, Document #201506048810, Document #201506048811, Official Public Records, Comal County, Texas;

4. Subject to the restrictions contained in Document #200506026533, Official Public Records, Comal County, Texas;

5. All oil, gas and other minerals of every character in and under the herein described property, reserved by instrument recorded in Document #201406041516, Official Public Records of Comal County, Texas;

GRANTOR AND GRANTEE, GRANTOR IS CONVEYING THE PROPERTY TO GRANTEE "AS IS, WHERE IS," AND WTIH ALL FAULTS, AND SPECIFICALLY AND EXPRESSLY WITHOUT ANY WARRANTIES, REPRESENTATIONS, OR GUARANTEES, EITHER EXPRESS OR IMPLIED, OF ANY KIND, NATURE, OR TYPE FROM OR ON BEHALF OF GRANTOR, EXCEPT FOR GRANTOR'S SPECIAL WARRANTY OF TITLE STATED ABOVE. GRANTEE ACKNOWLEDGES AND STIPULATES THAT GRANTEE IS NOT RELYING ON ANY REPRESENTATION, STATEMENT, OR OTHER ASSERTION ABOUT THE CONDITION OF THE PROPERTY MADE BY GRANTOR, OR ANYONE ACTING ON GRANTOR'S BEHALF, BUT IS RELYING ON GRANTEE'S OWN EXAMINATION OF THE PROPERTY.

When the context requires, singular nouns and pronouns include the plural.

EXECUTED on the 19th day of April, 2016.

SOUTHSTAR AT SPENCER LAND, LLC,
A Texas limited liability company

Diane Malloy
Notary Public, State of Texas
Commission # 130515400
Expires: 01/28/2020

By: _____
Thad Rutherford, President

ACKNOWLEDGMENT

STATE OF TEXAS §
§
COUNTY OF Travis §

This instrument was acknowledged before me on the 19th day of April, 2016, by Thad Rutherford, President of SOUTHSTAR AT SPENCER LAND, LLC, Grantor in above Special Warranty Deed.

_____
NOTARY PUBLIC, STATE OF TEXAS

AFTER RECORDING RETURN TO:

SHERWOOD SURVEYING & S.U.E.
UTILITIES | RESIDENTIAL | COMMERCIAL | INDUSTRIAL

6477 FM 311 | PO BOX 992
SPRING BRANCH, TX 78070
830.228.5788 P | 830.885.2170 F
WWW.MSENGR.COM | TBPLS #10044200

2.301 ACRE TRACT
14MS052.DWG

FN NO. 14MS052
APRIL 11, 2016

FIELDNOTE DESCRIPTION
TRACT 1 - 2.301 ACRES

BEING A 2.301 ACRE TRACT OF LAND SITUATED IN THE NANCY KENNER SURVEY NO. 3, ABSTRACT NO. 306, COMAL COUNTY, TEXAS, AND OUT OF THE CROSSINGS AT HAVENWOOD, UNIT 1, PLAT RECORDED IN DOCUMENT NO. 201506048119, MAP AND PLAT RECORDS, COMAL COUNTY, TEXAS, SAID 2.301 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING, AT A FOUND 1/2" IRON ROD SITUATED ON THE SOUTHEASTERLY CURVING RIGHT OF WAY LINE OF FM 1102 AND ON THE EASTERLY BOUNDARY LINE OF THAT CERTAIN 68.465 ACRE TRACT RECORDED IN DOCUMENT NO. 200606053122, OFFICIAL PUBLIC RECORDS, COMAL COUNTY, TEXAS, MARKING THE WESTERLY CORNER OF SAID THE CROSSINGS AT HAVENWOOD AND THE MOST WESTERLY CORNER AND **POINT OF BEGINNING** OF THIS TRACT;

THENCE, ALONG THE SOUTHEASTERLY RIGHT OF WAY LINE OF FM 1102, NORTHEASTERLY, ALONG THE ARC OF SAID CURVE TO THE RIGHT HAVING A RADIUS OF 1860.10 FEET, A CENTRAL ANGLE OF 03°36'49", AN ARC LENGTH OF 117.31 FEET AND A CHORD BEARING: N 56°01'41" E, 117.29 FEET TO A SET 1/2" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING THE NORTHERLY CORNER OF THIS TRACT;

THENCE, INTO AND ACROSS SAID THE CROSSINGS AT HAVENWOOD, THE FOLLOWING COURSES:

S 46° 14' 14" E, A DISTANCE OF 968.98 FEET TO A SET 1/2" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

N 43° 58' 18" E, A DISTANCE OF 83.14 FEET TO A SET 1/2" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

N 62° 45' 44" E, A DISTANCE OF 104.44 FEET TO A SET 1/2" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

S 46° 01′ 42″ E, A DISTANCE OF 133.78 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

N 48° 22′ 30″ E, A DISTANCE OF 1267.53 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

N 42° 45′ 17″ E, A DISTANCE OF 10.00 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

S 47° 14′ 43″ E, A DISTANCE OF 10.00 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

S 42° 45′ 17″ W, A DISTANCE OF 10.00 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

S 48° 22′ 30″ W, A DISTANCE OF 1267.74 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

S 43° 58′ 18″ W, A DISTANCE OF 135.31 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

S 46° 14′ 14″ E, A DISTANCE OF 135.31 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" SITUATED ON THE COMMON NORTHWESTERLY RIGHT OF WAY LINE OF THE UNION PACIFIC RAILROAD AND THE SOUTHEASTERLY BOUNDARY LINE OF SAID THE CROSSINGS AT HAVENWOOD, MARKING A CORNER OF THIS TRACT;

THENCE, S 42° 45′ 17″ W, ALONG THE COMMON LINE OF SAID UNION PACIFIC RAILROAD AND THIS TRACT, A DISTANCE OF 40.01 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING THE SOUTHERLY CORNER OF THIS TRACT;

THENCE, INTO AND ACROSS SAID THE CROSSINGS AT HAVENWOOD, THE FOLLOWING COURSES:

N 46° 14′ 14″ W, A DISTANCE OF 1145.83 FEET TO A SET 1/2″ IRON ROD WITH YELLOW PLASTIC CAP STAMPED "SHERWOOD SURVEYING" MARKING A CORNER OF THIS TRACT;

N 71° 02′ 05″ W, A DISTANCE OF 177.91 FEET TO THE **POINT OF BEGINNING**, CONTAINING AN AREA OF 2.301 ACRES OF LAND MORE OR LESS.

I, RICHARD A GOODWIN, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE PROPERTY DESCRIBED HEREIN WAS DETERMINED FROM A SURVEY MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION.

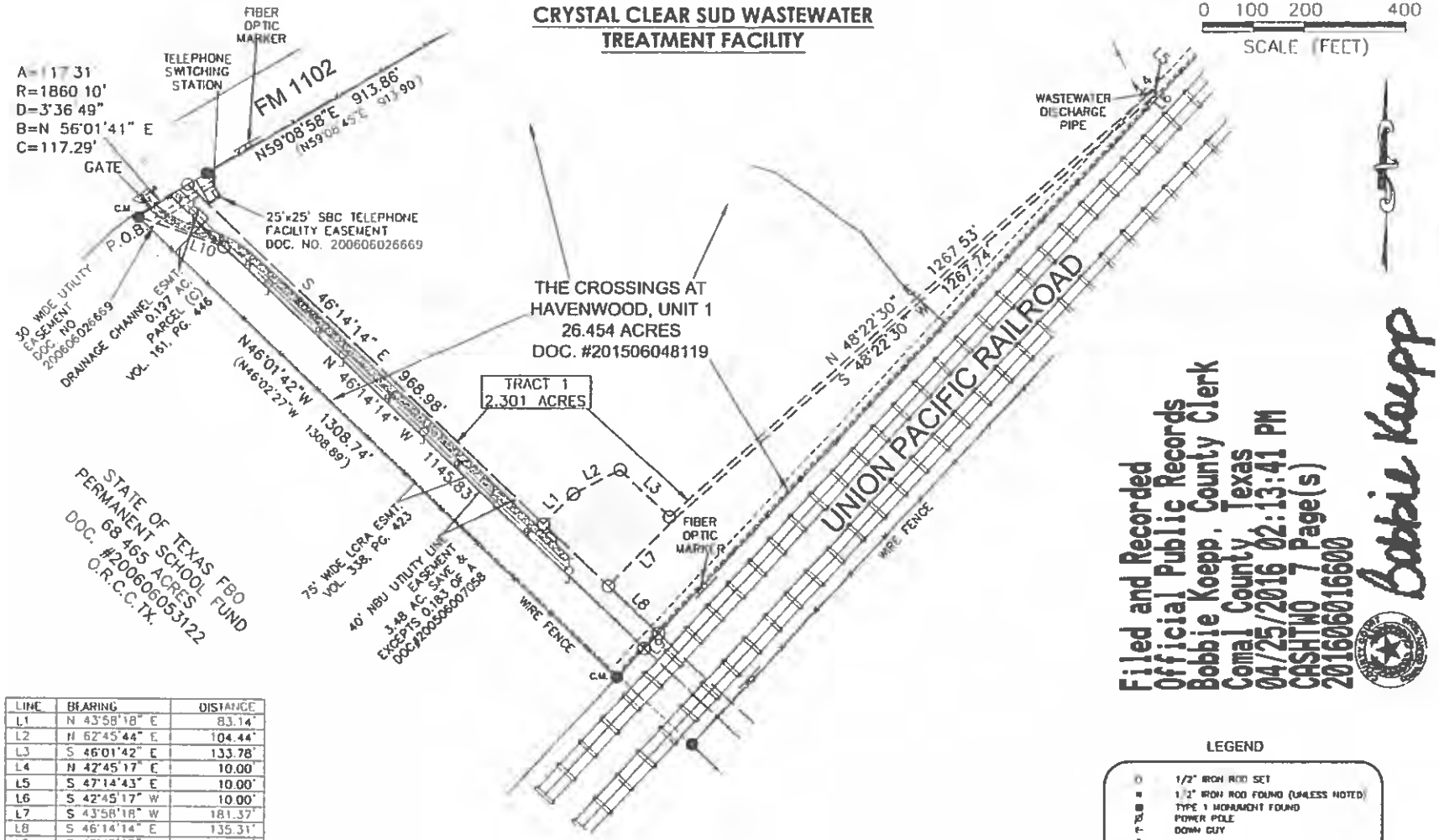
A SURVEY EXHIBIT WAS PREPARED ON THIS SAME DATE. BASIS OF BEARING IS NAD 83 TEXAS STATE PLANE COORDINATES, SOUTH CENTRAL ZONE.

4/11/16

SHERWOOD SURVEYING, LLC
P.O. BOX 992
SPRING BRANCH, TEXAS 78070

RICHARD A. GOODWIN DATE
R.P.L.S. #4069 STATE OF TEXAS

CRYSTAL CLEAR SUD WASTEWATER TREATMENT FACILITY



LINE	BEARING	DISTANCE
L1	N 43°58'18" E	83.14'
L2	N 62°45'44" E	104.44'
L3	S 46°01'42" E	133.78'
L4	N 42°45'17" E	10.00'
L5	S 47°14'43" E	10.00'
L6	S 42°45'17" W	10.00'
L7	S 43°58'18" W	181.37'
L8	S 46°14'14" E	135.31'
L9	S 42°45'17" W	40.01'
L10	N 71°02'05" W	177.91'

LEGAL DESCRIPTION

BEING A 2.301 ACRE TRACT OF LAND SITUATED IN THE NANCY KENNER SURVEY No. 3 ABSTRACT No. 306, COMAL COUNTY TEXAS, AND THE CROSSINGS AT HAVENWOOD, UNIT 1 RECORDED IN DOCUMENT No. 201506048119 OFFICIAL PUBLIC RECORDS COMAL COUNTY TEXAS.

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
04/25/2016 02:13:41 PM
CASHTWO 7 Page(s)
201606016600
Bobbie Koepp

LEGEND

○	1/2" IRON ROD SET
●	1/2" IRON ROD FOUND (UNLESS NOTED)
■	TYPE 1 MONUMENT FOUND
	POWER POLE
	DOWN GUY
	TELEPHONE RISER
	ELECTRIC METER
	MAIL BOX
	CHAIN LINK FENCE
	WIRE FENCE
	OVERHEAD ELEC. LINE
	FIBER OPTIC CABLE MARKER
(XXX)	RECORD INFORMATION
O.R.C.C.TX	OFFICIAL RECORDS COMAL COUNTY, TEXAS
C.M.	CONTROLLING MONUMENT

I, RICHARD A. GOODWIN, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, REGISTRATION NUMBER 4069, HEREBY STATE THAT DURING THE MONTH OF APRIL, 2016, A SURVEY OF THE REAL PROPERTY SHOWN HEREON WAS MADE UPON THE GROUND UNDER MY DIRECTION AND SUPERVISION.

RICHARD A. GOODWIN
REGISTERED PROFESSIONAL
LAND SURVEYOR NO. 4069

STATE OF TEXAS
REGISTERED
RICHARD A. GOODWIN
4069
PROFESSIONAL
LAND SURVEYOR

SURVEYOR NOTES:
THIS BOUNDARY SURVEY WAS COMPLETED WITHOUT ADDITIONAL RESEARCH TO DETERMINE IF OTHER MATTERS OF RECORD, IF ANY, MIGHT AFFECT THIS PROPERTY, SUCH AS EASEMENTS, SETBACKS, OR OTHER ENCUMBRANCES.

BASIS OF BEARING IS NAD83 TEXAS STATE PLANE COORDINATES, SOUTH CENTRAL ZONE

DATE OF FIELDWORK: 4-5-16

SHERWOOD SURVEYING & S.U.E.
UTILITIES | RESIDENTIAL, COMMERCIAL, INDUSTRIAL
6477 FM 311 P.O. BOX 992 TBPLS FIRM#10043300
SPRING BRANCH, TEXAS 78070
PHONE (830) 228-3788 FAX (830) 885-2171

DATE: 4/11/16 | DRAWN BY: VLH | PROJECT No. 14SD12

ATTACHMENT C

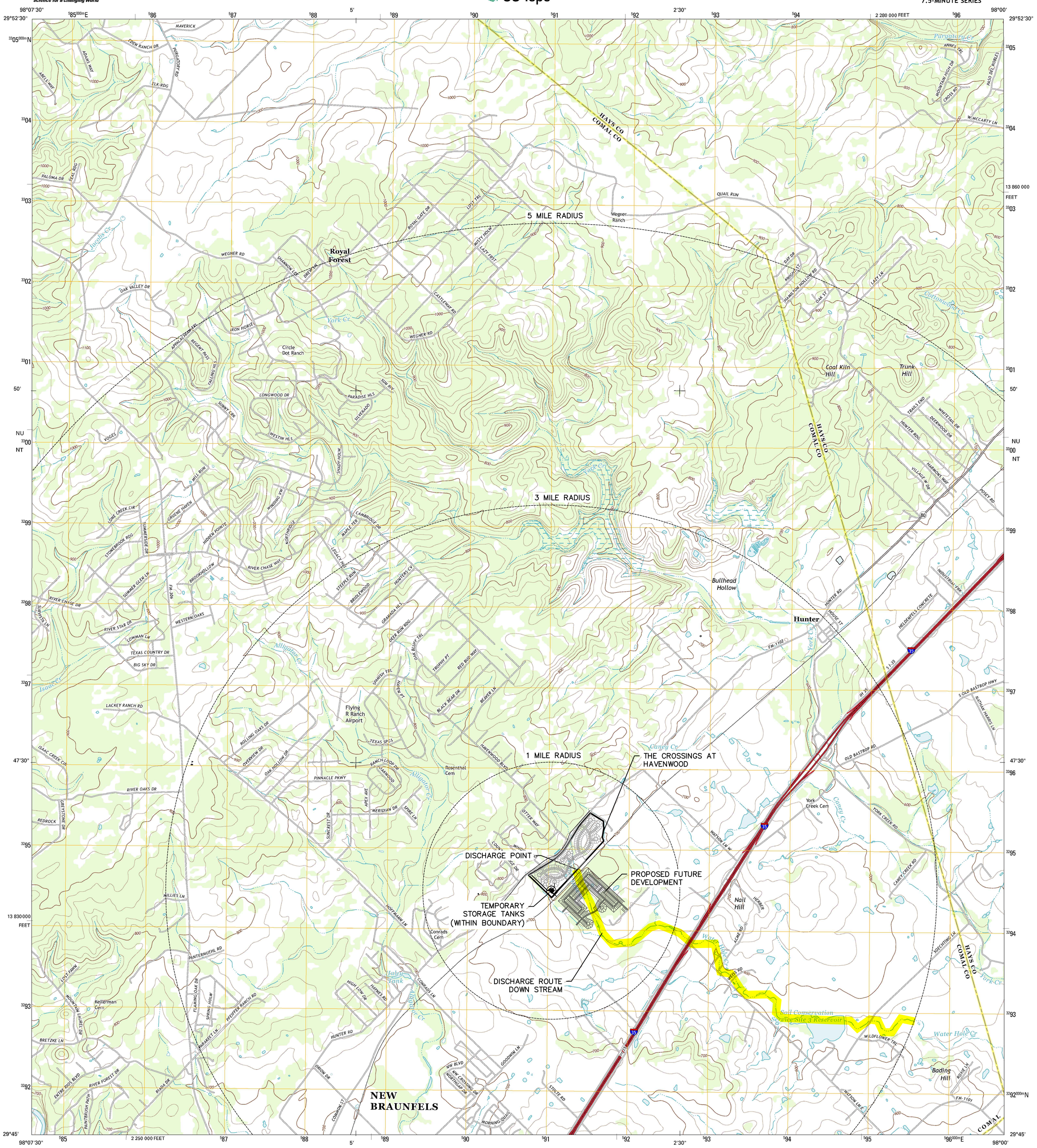
USGS MAP

USGS science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

The National Map US Topo

HUNTER QUADRANGLE
TEXAS
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 14R
10 000-foot ticks: Texas Coordinate System of 1983 (south central zone)

Imagery.....NAIP, May 2010
Roads.....©2006-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2010
Contours.....National Elevation Dataset, 2004
Boundaries.....Census, IBWC, IBC, USGS, 1972 - 2012

MN 4° 33′ 81 MILS
GN 0° 28′ 8 MILS
UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID: NU / NT — 33°00
Grid Zone Designation: 14R

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

Devils Backbone	Wimberley	San Marcos North
Sattler	Hunter	San Marcos South
New Braunfels West	New Braunfels East	Geronimo

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

Interstate Route		State Route	
US Route		Local Road	
Ramp		4WD	

Interstate Route · US Route · State Route

HUNTER, TX
2013

ATTACHMENT D

DOMESTIC TECHNICAL REPORT SECTION 2, PART A

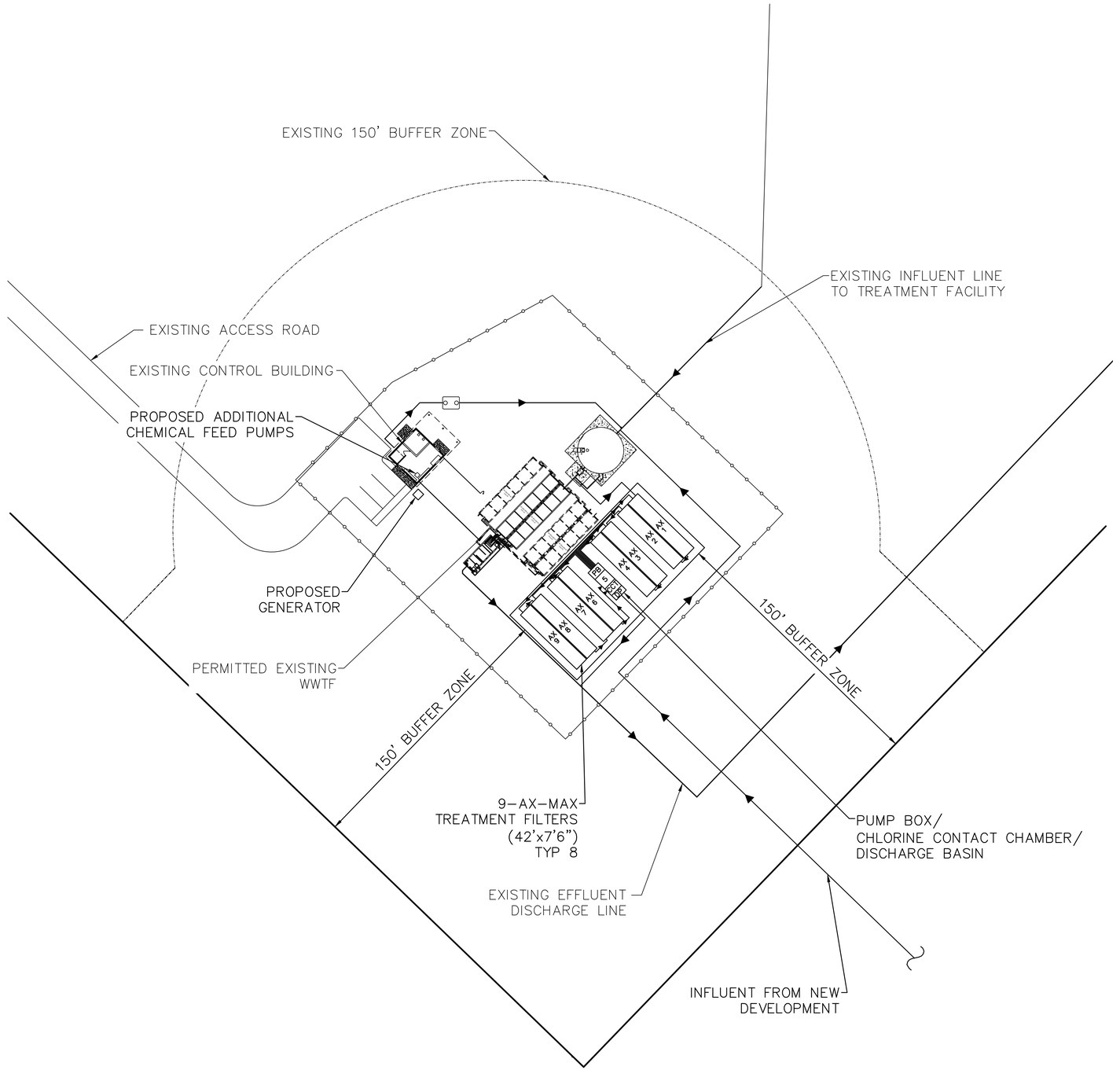
DOMESTIC TECHNICAL REPORT 1.0
Section 2.A -Treatment Process Description

The Crossing at Havenwood Wastewater Treatment Facility (WWTF) is an effluent pumping system which includes first an interceptor tank (septic tank) followed by recirculation and packed-bed media filters. The treatment process for the existing phase and eventually the final phase, includes the incorporation of individual interceptor tanks at each lot/home site, recirculation and blending tanks, and packed-bed media filter pods which discharge the treated effluent through a subsurface drip dispersal system. Primary treatment of raw sewage is accomplished with anaerobic digestion through appropriately sized interceptor tanks. The sludge is contained within these individual tanks at the home sites. After the primary treatment, the non-sludge effluent is pumped to the secondary treatment pods, where the aerobic treatment process provides oxidation and digestion for both organic and nutrient reduction. During the secondary treatment within the pods, the effluent enters a recirculation chamber where the influent is blended and diluted with filtrate before being dosed onto the filter by recirculation pumps. The pumps transport the effluent to a distribution manifold above the filter. Effluent percolates down through the textile media, where the organic and inorganic matter is treated by naturally occurring heterotrophic and autotrophic microorganisms that populate the filter. The flow of the filtered effluent is mechanically divided between the recirculation-blend chamber and the recirculation-filtrate chamber via a tank baffle; the liquid levels within the recirculation-blend chamber and the recirculation-filtrate chamber are controlled by the recirculation return valve. Finally, the treated effluent is discharged at a defined point location.

For each home built, a primary tank is added. The tanks are connected to WWTF. Currently, the WWTF has 5 recirculation fixed filter pod unites installed. The final phase will consist of 9 additional recirculation fixed filter pod units to the WWTF, with a total of 14 treatment pod units.

ATTACHMENT E

PROCESS FLOW DIAGRAM



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SCALE (FEET)

LEGEND:

AX	AX-MAX UNIT
PB	PUMP BASIN
CCT	CHLORINE CONTACT TANK
DP	DISCHARGE PUMP

NOTES:
1. 4' SETBACK RECTANGLE ON ALL SIDES.
2. 5' SPACING BETWEEN PAIRED UNITS.
3. 6" SPACING BETWEEN EACH UNIT.

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TEXAS REGISTERED ENGINEERING FIRM F-1394

STATE OF TEXAS
TREVOR N. TAST
124101
LICENSED
PROFESSIONAL ENGINEER
03/07/2018

CROSSING AT HAVENWOOD
WWTF EXPANSION
PROCESS FLOW DIAGRAM

JOB: 17BSW006	
DATE: FEBRUARY,2018	
DRAWN: JKB	PM: TNT
DESIGN: JM	DM: LK
PEER:	OTHER:

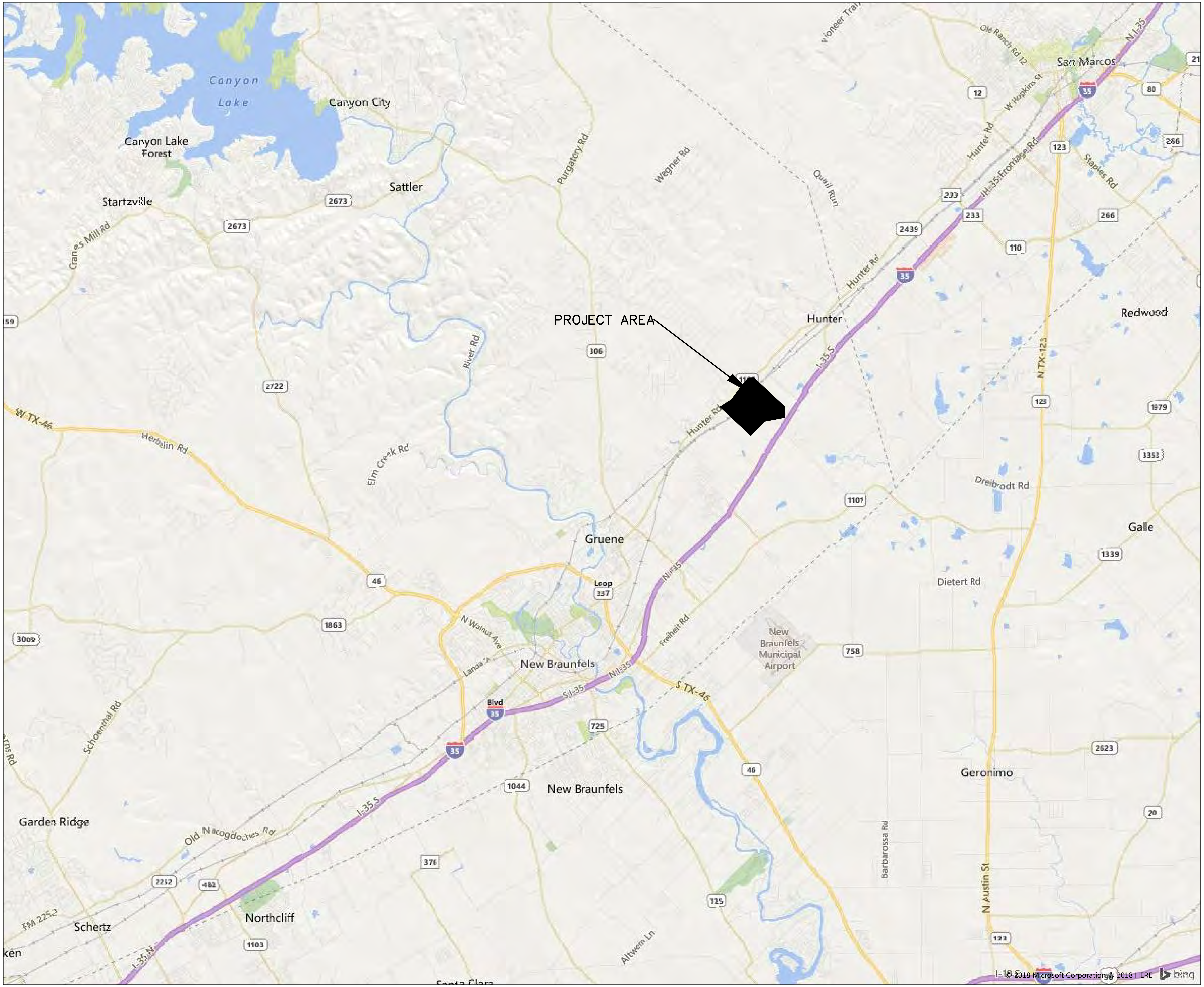
REVISIONS:

DELTA	DESCRIPTION

SHEET: 2

ATTACHMENT F

OVERALL SITE PLAN
LOCATION EXHIBIT



VINTAGE OAKS AT THE VINEYARD

OVERALL SITE PLAN LOCATION EXHIBIT

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TEXAS REGISTERED ENGINEERING FIRM F-1394 SURVEYING FIRM # 10044200

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SPRING BRANCH, TX 78070

BRANCH OFFICE
376 LANDA ST.
NEW BRAUNFELS, TX 78130
PHONE: (830) 629-2988

STATE OF TEXAS
TREVOR N. TAST
124101
LICENSED
PROFESSIONAL ENGINEER
03/07/2018

JOB: 17BSW006
DATE: FEBRUARY 2017
DRAWN: PM:
DESIGN: DM:
PEER: OTHER:

REVISIONS:

DELTA	DESCRIPTION

SHEET:
3

Date: Feb 20, 2018, 9:45am User ID: jmore
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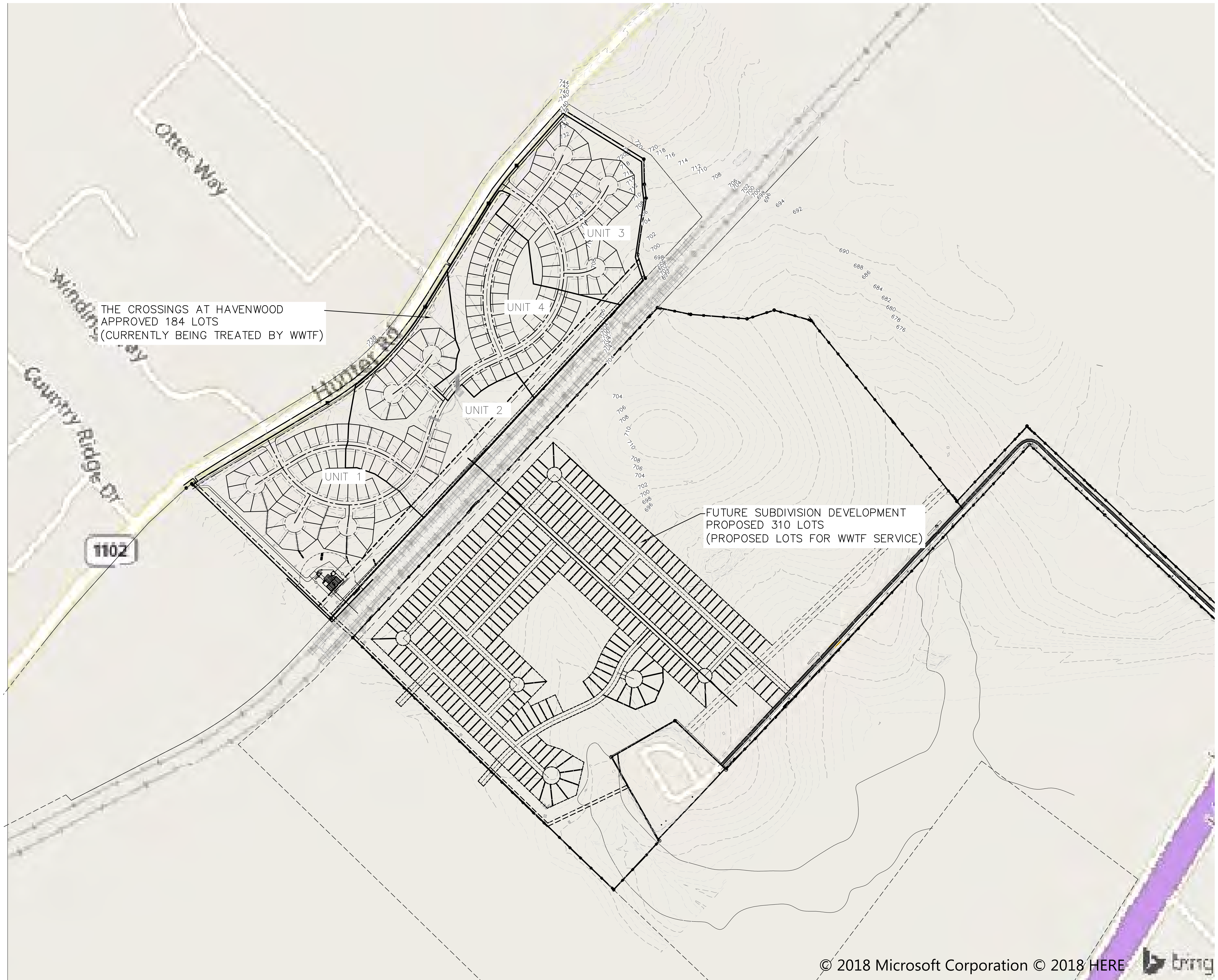

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SCALE (FEET)

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STATE OF TEXAS
TREVOR N. TAST
124101
LICENSED
PROFESSIONAL ENGINEER
04/26/2018

VINTAGE OAKS AT THE VINEYARD

OVERALL SITE PLAN EXHIBIT

JOB: 17BSW006
DATE: FEBRUARY 2017
DRAWN: PM:
DESIGN: DM:
PEER: OTHER:

REVISIONS:

DELTA	DESCRIPTION

SHEET: 1

Date: Apr 10, 2018, 4:08pm User ID: jmore
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ATTACHMENT G

APPROVED PERMIT
ISSUED DATE:
SEPTEMBER 18, 2019

TPDES PERMIT NO. WQ0015266001
[For TCEQ office use only - EPA I.D. No. TX0135488]

This major amendment supersedes and replaces TPDES Permit No. WQ0015266001 issued on April 7, 2015.

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

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

Crystal Clear Special Utility District

whose mailing address is

2370 Farm-to-Market Road 1979
San Marcos, Texas 78666

is authorized to treat and discharge wastes from the The Crossing at Havenwood Wastewater Treatment Facility, SIC Code 4952

located at 5975 Farm-to Market Road 1102, in Comal County, Texas 78132

to Water Hole Creek; thence to Soil Conservation Service (SCS) Site 3 Reservoir; thence to Water Hole Creek; thence to York Creek; thence to Lower San Marcos River in Segment No. 1808 of the Guadalupe River Basin

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

This permit shall expire at midnight, **February 1, 2020**.

ISSUED DATE: **September 18, 2019**

For the Commission

INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through the completion of expansion to the 0.100 million gallons per day (MGD) facility, the permittee is authorized to discharge subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 0.0373 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 52 gallons per minute (gpm).

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Max. Single Grab Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing meter
Biochemical Oxygen Demand (5-day)	20 (6.2)	30	45	65	One/week	Grab
Total Suspended Solids	20 (6.2)	30	45	65	One/week	Grab
E. coli, colony-forming units or most probable number per 100 ml	126	N/A	N/A	399	One/quarter	Grab

2. The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored five times per week by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

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

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

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

6. The effluent shall contain a minimum dissolved oxygen of 2.0 mg/l and shall be monitored once per week by grab sample.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the completion of expansion to the 0.100 million gallons per day (MGD) facility and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 0.1 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 139 gallons per minute (gpm).

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Max. Single Grab Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (8.3)	15	25	35	One/week	Grab
Total Suspended Solids	15 (13)	25	40	60	One/week	Grab
Ammonia Nitrogen	3 (2.5)	6	10	15	One/week	Grab
Total Phosphorus	1 (0.8)	2	4	6	One/week	Grab
E. coli, colony-forming units or most probable number per 100 ml	126	N/A	N/A	399	One/month	Grab

2. The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored five times per week by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

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

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

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

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

DEFINITIONS AND STANDARD PERMIT CONDITIONS

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

1. Flow Measurements

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

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

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

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

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

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

2. Concentration Measurements

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

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

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

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

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

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

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

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

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

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

3. Sample Type

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

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

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

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

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

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

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

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

2. Test Procedures

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

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

3. Records of Results

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

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

c. Records of monitoring activities shall include the following:

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

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

iii. date and time of analysis;

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

v. the technique or method of analysis; and

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

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

4. Additional Monitoring by Permittee

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

5. Calibration of Instruments

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

6. Compliance Schedule Reports

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

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

7. Noncompliance Notification

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

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

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

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

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

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

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

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

9. Changes in Discharges of Toxic Substances

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

becoming aware of or having reason to believe:

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

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

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

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

   iv. The level established by the TCEQ.

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

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

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

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

   iv. The level established by the TCEQ.

10. Signatories to Reports

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

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

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

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

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

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

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

PERMIT CONDITIONS

1. General

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

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

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

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

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

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

2. Compliance

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

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

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

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

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

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

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

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

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

3. Inspections and Entry

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

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

4. Permit Amendment and/or Renewal

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

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

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

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

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

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

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

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

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

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

5. Permit Transfer

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

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

6. Relationship to Hazardous Waste Activities

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

7. Relationship to Water Rights

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

8. Property Rights

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

9. Permit Enforceability

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

10. Relationship to Permit Application

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

11. Notice of Bankruptcy

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

i. the permittee;

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

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

b. This notification must indicate:

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

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

iii. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

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

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

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

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

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

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

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

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

7. Documentation

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

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

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

      If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) 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 Class A or Class AB Sewage Sludge. This provision does not authorize the permittee to land apply sludge on property owned, leased or under the direct control of the permittee.**

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE LAND APPLICATION

A. General Requirements

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

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

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

B. Testing Requirements

1. Sewage sludge shall be tested once during the term of this permit in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division and the Regional Director (MC Region 13) 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 13) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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

TABLE 1

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

* Dry weight basis

3. Pathogen Control

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

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

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

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

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

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

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

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

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

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

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

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

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

Alternative 1

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4. Vector Attraction Reduction Requirements

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

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

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

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

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

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

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

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

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

Alternative 9 - i. Sewage sludge shall be injected below the surface of the land.

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

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

Alternative 10- i. Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

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

C. Monitoring Requirements

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

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

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

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

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

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

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

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

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

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

A. Pollutant Limits

Table 2

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

Table 3

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

*Dry weight basis

B. Pathogen Control

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

C. Management Practices

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

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

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

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

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

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

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

D. Notification Requirements

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

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

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

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

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

E. Record keeping Requirements

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

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

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

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

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

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

5. The following certification statement:

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

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

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

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

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

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

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

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

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

F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 13) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year the following information. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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

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

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

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

5. Toxicity Characteristic Leaching Procedure (TCLP) results.

6. PCB concentration in sludge in mg/kg.

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

8. Date(s) of transport.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

   Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division and the Regional Director (MC Region 13) 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 13) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year.

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

F. Record keeping Requirements

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

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

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

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

G. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 13) and Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year the following information. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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

2. Toxicity Characteristic Leaching Procedure (TCLP) results.

3. Annual sludge production in dry tons/year.

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

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

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

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

8. Owner of disposal site(s).

9. Location of disposal site(s).

10. Date(s) of disposal.

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

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

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

A. General Requirements

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

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

B. Record Keeping Requirements

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

   a. the amount of sludge transported;

   b. the date of transport;

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

   d. the location of the receiving facility or facilities;

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

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

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

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

C. Reporting Requirements

The permittee shall report the following information annually to the TCEQ Regional Office (MC Region 13) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year. Effective September 1, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (e.g., sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
2. the annual sludge production;
3. the amount of sludge transported;
4. the owner of each receiving facility;
5. the location of each receiving facility; and
6. the date(s) of disposal at each receiving facility.

TCEQ Revision 01/2016

OTHER REQUIREMENTS

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

   This Category C facility must be operated by a chief operator or an operator holding a Category C license or higher. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift 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. Prior to construction of the Final phase treatment facility, the permittee shall submit sufficient evidence of legal restrictions prohibiting residential structures within the part of the buffer zone not owned by the permittee according to 30 TAC § 309.13(e)(3). The evidence of legal restrictions shall be submitted to the Executive Director in care of the TCEQ Wastewater Permitting Section (MC 148). The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). (See Attachment A.)

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

5. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, 1/quarter may be reduced to 1/6 months in the Interim phase, and 1/month may be reduced to 1/quarter in the Final phase. **A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148).** The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.

6. Prior to construction of the Final phase treatment facility, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary transmittal letter in accordance with the requirements in 30 TAC § 217.6(d). If requested by the Wastewater Permitting Section, the permittee shall submit plans and specifications and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the final permitted effluent limitations required on Page 2a of this permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

7. Within 60 days from permit issuance, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary transmittal letter in accordance with the requirements in 30 TAC § 217.6(d). If requested by the Wastewater Permitting Section, the permittee shall submit plans and specifications and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the permitted interim effluent limitations required on Page 2 of this permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

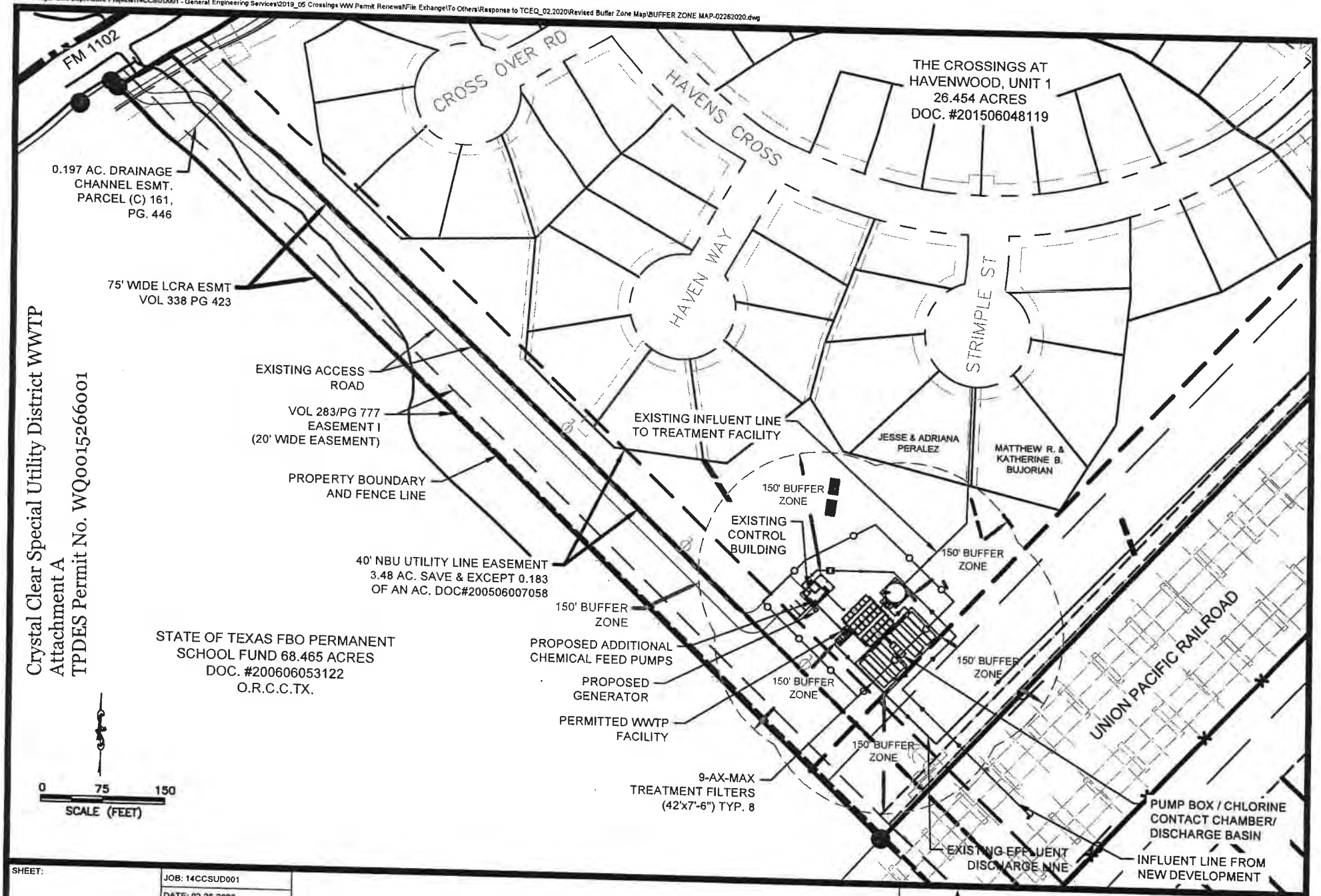
   a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and

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

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

Revised July 2007

Date: Feb 27, 2020, 4:18pm User ID: gsharp
File: \\cougar\Civil Dept\Active Projects\14CCSUD001 - General Engineering Services\2019_05 Crossings WW Permit Renewal\File Exhange\To Others\Response to TCEQ_02.2020\Revised Buffer Zone Map\BUFFER ZONE MAP-02262020.dwg



Crystal Clear Special Utility District WWTP
Attachment A
TPDES Permit No. WQ0015266001

SHEET:	
JOB: 14CCSUD001	
DATE: 02-26-2020	
DRAWN: GS	PM:
DESIGN: CB	DM:
PEER:	OTHER:

THE CROSSINGS AT HAVENWOOD
BUFFER ZONE MAP

M&S ENGINEERING
CIVIL | ELECTRICAL | STRUCTURAL | MEP
TEXAS PROFESSIONAL ENGINEERING FIRM # F-1394
WWW.MSENGR.COM | (830) 228-5446

ATTACHMENT H

AQUA-TECH
LAB RESULTS

Email information for report date:

11/15/19 09:22

C034654

Crystal Clear SUD

Attn: Regina Franke

regina@crystalclearsud.org

2370 FM 1979

San Marcos, TX 78666

Submission forms:

Due to updates by TCEQ, the submission form used for Drinking Water Revised Coliform Rule has been updated. Please contact us if you need a copy of this new Chain of Custody form.

Aqua-Tech values you as a customer and encourages you to speak with our sampling staff at 979-778-3707 option 2 or samplingbryan@aqua-techlabs.com if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

CORPORATE OFFICE
635 Phil Gramm Boulevard
Bryan, TX 77807
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Fax: (979) 778-3193

AQUA-TECH LABORATORIES, INC.

AUSTIN OFFICE
7500 Hwy 71 W, Suite 105
Austin, TX 78735
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not required by the State of Texas.
DWP	Accreditation through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

TCEQ DW Lab ID TX 239

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations .
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien, Technical Director

corp@aqua-techlabs.com www.aqua-techlabs.com

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Analytical Report

Crystal Clear SUD

Report Printed: **11/15/19** **9:22**

C034654

Crystal Clear WWTP Effluent Permit

Collected: 10/29/19 08:44 by Audrey Landrum
Received: 10/29/19 10:35 by Audrey Landrum

Type: Grab
Matrix: Non Potable
C-O-C #: N/A

Lab ID# C034654-01

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
Field Parameters											
Field pH	**7.3**	Std Units		0.01	0.01	0.1	*Austin*	At Collection	SM4500-H+ B 2000	M105154	NEL
Dissolved Oxygen	**7.0**	mg/L		0.1	0.1	0.1	*Austin*	At Collection	SM4500 O G 2011	M105154	NEL
Temperature	**23.4**	Deg. C		0.1	0.1	0.1	*Austin*	At Collection	SM2550 B 2000	M105154	ANR
Total Residual Chlorine	**3.0**	mg/L			0.10	0.10	*Austin*	At Collection	SM4500-Cl F 2011	[CALC]	NEL
General Chemistry											
Carbonaceous BOD (5 day)	**3**	mg/L		1	1	1	*Austin*	10/30/19 07:45 PMY	SM5210 B 2011	M105290	NEL
Total Suspended Solids	**<1**	mg/L		1	1	1	*Austin*	10/29/19 11:25 AEL	SM2540 D 2015	M105257	NEL
Total Dissolved Solids	**666**	mg/L		25.0	50.0	50.0	*Bryan*	10/30/19 14:53 MRH	SM2540 C 2011	M105288	NEL
Ammonia as N	**0.05**	mg/L		0.05	0.05	0.05	*Bryan*	10/31/19 12:10 JKA	SM4500-NH3 G 2011	M105354	NEL
Total Kjeldahl Nitrogen as N	**<0.20**	mg/L		0.18	0.18	0.20	*Bryan*	11/05/19 10:10 MRB	EPA 351.2 R2.0	M105492	NEL
Nitrate as N	**38.9**	mg/L			0.103	3.00	*Austin*	10/30/19 11:46 JLL	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	**<0.01**	mg/L		0.002	0.002	0.01	*Austin*	10/30/19 10:25 JLL	SM4500 NO2- B 2011	M105311	NEL
Nitrate/Nitrite as N	**38.9**	mg/L		0.02	0.10	3.00	*Bryan*	10/30/19 11:46 MRB	SM4500-NO3-F 2011	M105299	NEL
Total Alkalinity as CaCO3 (pH4.5)	**177**	mg/L		5.00	20.0	20.0	*Bryan*	11/04/19 08:41 MRH	SM2320 B 2011	M105507	NEL
Chloride	**107**	mg/L		2.53	10.1	20.0	*Bryan*	11/04/19 08:18 CJO	SM4500-Cl- B 2011	M105494	NEL
Sulfate	**38.1**	mg/L		2.63	2.63	5.00	*Bryan*	11/13/19 08:18 CJO	ASTM D516 11	M105686	NEL
Microbiological Analyses											
E. Coli	**<1.0**	MPN/100 mL		1.0	1.0	1.0	*Austin*	10/29/19 15:10 JLL	SM9223 B 2004	M105278	NEL

Results run by SM 9223B are reported as MPN (Most Probable Number). MPN is comparable to CFU (Colony Forming Units). Both MPN and CFU are allowed in most permits.

Metals (Total)											
Phosphorus-Total	**5.45**	mg/L		0.082	0.041	0.050	*Bryan*	11/06/19 01:14 PNS	EPA 200.7 R4.4	M105405	NEL

Explanation of Notes

J Analyte detected below the SQL but above the MDL.

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Analytical Report

Crystal Clear SUD

Report Printed: **11/15/19** **9:22**

C034654

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Ammonia as N - SM4500-NH3 G 2011														*Bryan*
Initial Cal Check	2.51	mg/L				10/31/19 12:10 JKA	2.40		105	90 - 110			1910332	
Low Cal Check	0.05	mg/L				10/31/19 12:10 JKA	0.0500		106	70 - 130			1910332	
Blank	<0.05	mg/L		0.05	0.05	10/31/19 12:10 JKA							M105354	
LCS	2.04	mg/L		0.05	0.05	10/31/19 12:10 JKA	2.00		102	89.7 - 110			M105354	
LCS Dup	2.04	mg/L		0.05	0.05	10/31/19 12:10 JKA	2.00		102	89.7 - 110	0.214	6.47	M105354	
Matrix Spike	1.87	mg/L		0.05	0.05	10/31/19 12:10 JKA	2.00	<0.05	93.3	78.1 - 112			M105354	
Matrix Spike Dup	1.85	mg/L		0.05	0.05	10/31/19 12:10 JKA	2.00	<0.05	92.6	78.1 - 112	0.687	8.73	M105354	
Carbonaceous BOD (5 day) - SM5210 B 2011														*Austin*
Diln Water Blk	<0.20	mg/L		1	1	10/30/19 07:45 PMY		0.1		< or = 0.2 mg/L			1910314	
GGA	191	mg/L		1	1	10/30/19 07:45 PMY	198		96.5	84.6 - 115.4			1910314	
GGA	190	mg/L		1	1	10/30/19 07:45 PMY	198		96.0	84.6 - 115.4			1910314	
Seed Blank	<1	mg/L		1	1	10/30/19 07:45 PMY							1910314	
Seed Blank	<1	mg/L		1	1	10/30/19 07:45 PMY							1910314	
Duplicate	228	mg/L		38	38	10/30/19 07:45 PMY		196			15.1	41.3	M105290	
Chloride - SM4500-Cl- B 2011														*Bryan*
Initial Cal Check	48.3	mg/L				11/04/19 08:18 CJO	50.0		96.6	90 - 110			1911024	
Blank	<5.00	mg/L		2.53	5.00	11/04/19 08:18 CJO							M105494	
LCS	21.0	mg/L		2.53	5.00	11/04/19 08:18 CJO	19.8		106	90 - 110			M105494	
LCS Dup	20.6	mg/L		2.53	5.00	11/04/19 08:18 CJO	19.8		104	90 - 110	2.30	7.48	M105494	
Matrix Spike	230	mg/L		12.6	25.0	11/04/19 08:18 CJO	99.0	132	99.0	87.8 - 109			M105494	
Matrix Spike Dup	230	mg/L		12.6	25.0	11/04/19 08:18 CJO	99.0	132	99.0	87.8 - 109	0.00	7.52	M105494	
MRL Check	5.74	mg/L		2.53	5.00	11/04/19 08:18 CJO	4.95		116	70 - 130			M105494	
Nitrate/Nitrite as N - SM4500-NO3-F 2011														*Bryan*
Initial Cal Check	2.45	mg/L				10/30/19 11:46 MRB	2.30		107	90 - 110			1910319	
Low Cal Check	0.51	mg/L				10/30/19 11:46 MRB	0.500		102	70 - 130			1910319	
Blank	<0.50	mg/L	*J (0.03)*	0.02	0.50	10/30/19 11:46 MRB							M105299	
LCS	1.89	mg/L		0.02	0.51	10/30/19 11:46 MRB	2.00		94.6	91.3 - 109			M105299	
LCS Dup	1.94	mg/L		0.02	0.51	10/30/19 11:46 MRB	2.00		97.1	91.3 - 109	2.59	6.8	M105299	
Matrix Spike	30.6	mg/L		0.11	3.09	10/30/19 11:46 MRB	18.0	11.8	105	94.1 - 111			M105299	
Matrix Spike Dup	30.3	mg/L		0.11	3.09	10/30/19 11:46 MRB	18.0	11.8	103	94.1 - 111	1.61	8.65	M105299	

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Analytical Report

Crystal Clear SUD

Report Printed: **11/15/19** **9:22**

C034654

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Nitrite as N - SM4500 NO2- B 2011														*Austin*
Initial Cal Check	0.07	mg/L				05/29/19 12:06 KT	0.0725		102	85 - 115			1905275	
Blank	<0.01	mg/L		0.002	0.01	10/30/19 10:25 JLL							M105311	
LCS	0.08	mg/L		0.002	0.01	10/30/19 10:25 JLL	0.0800		103	90 - 110			M105311	
LCS Dup	0.08	mg/L		0.002	0.01	10/30/19 10:25 JLL	0.0800		102	90 - 110	0.860	6.92	M105311	
Matrix Spike	0.07	mg/L		0.002	0.01	10/30/19 10:25 JLL	0.0800	<0.01	86.9	67.6 - 110			M105311	
Matrix Spike Dup	0.07	mg/L		0.002	0.01	10/30/19 10:25 JLL	0.0800	<0.01	86.4	67.6 - 110	0.508	6.23	M105311	
MRL Check	0.01	mg/L		0.002	0.01	10/30/19 10:25 JLL	0.0100		100	70 - 130			M105311	
Sulfate - ASTM D516 11														*Bryan*
Initial Cal Check	9.61	mg/L				08/08/19 14:41 MRB	10.0		96.1	90 - 110			1908069	
ICV	4.88	mg/L				11/13/19 08:18 CJO	5.00		97.5	70 - 130			1911081	
Initial Cal Check	10.1	mg/L				11/13/19 08:18 CJO	10.0		101	90 - 110			1911081	
Blank	<5.00	mg/L		2.63	5.00	11/13/19 08:18 CJO							M105686	
Duplicate	79.0	mg/L		8.76	16.7	11/13/19 08:18 CJO		77.8			1.58	8.03	M105686	
LCS	9.42	mg/L		2.63	5.00	11/13/19 08:18 CJO	10.0		94.2	80 - 120			M105686	
Matrix Spike	110	mg/L		8.76	16.7	11/13/19 08:18 CJO	33.3	77.8	97.4	69.1 - 129			M105686	
MRL Check	<5.00	mg/L	*J (4.88)*	2.63	5.00	11/13/19 08:18 CJO	5.00		97.5	69 - 119			M105686	
Total Alkalinity as CaCO3 (pH4.5) - SM2320 B 2011														*Bryan*
Initial Cal Check	6.91	mg/L				11/04/19 08:41 MRH	6.86		101	97 - 103			1911026	
Initial Cal Check	9.21	mg/L				11/04/19 08:41 MRH	9.18		100	97 - 103			1911026	
Low Cal Check	20.0	mg/L				11/04/19 08:41 MRH	20.0		100	70 - 130			1911026	
Duplicate	178	mg/L		20.0	20.0	11/04/19 08:41 MRH		177			0.563	6.16	M105507	
LCS	81.0	mg/L		20.0	20.0	11/04/19 08:41 MRH	80.0		101	90.2 - 116			M105507	
LCS Dup	81.0	mg/L		20.0	20.0	11/04/19 08:41 MRH	80.0		101	90.2 - 116	0.00	11.3	M105507	
Total Dissolved Solids - SM2540 C 2011														*Bryan*
Blank	<25.0	mg/L		25.0	25.0	10/30/19 14:53 MRH							M105288	
Duplicate	664	mg/L		50.0	50.0	10/30/19 14:53 MRH		666			0.301	9.13	M105288	
Reference	500	mg/L		100	100	10/30/19 14:53 MRH	500		100	81 - 121			M105288	

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Analytical Report

Crystal Clear SUD

Report Printed: **11/15/19** **9:22**

C034654

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Total Kjeldahl Nitrogen as N - EPA 351.2 R2.0														*Bryan*
Low Cal Check	0.16	mg/L				11/05/19 10:10 MRB	0.200		79.6	70 - 130			1911036	
Blank	<0.20	mg/L		0.18	0.20	11/05/19 10:10 MRB							M105492	
LCS	8.66	mg/L		0.18	0.20	11/05/19 10:10 MRB	8.00		108	93.1 - 110			M105492	
LCS Dup	8.57	mg/L		0.18	0.20	11/05/19 10:10 MRB	8.00		107	93.1 - 110	1.07	4.9	M105492	
Matrix Spike	8.80	mg/L		0.18	0.20	11/05/19 10:10 MRB	8.00	<0.20	110	84.4 - 119			M105492	
Matrix Spike Dup	8.95	mg/L		0.18	0.20	11/05/19 10:10 MRB	8.00	<0.20	112	84.4 - 119	1.71	10.9	M105492	
Reference	5.31	mg/L		0.18	0.20	11/05/19 10:10 MRB	5.41		98.3	85 - 115			M105492	
Total Suspended Solids - SM2540 D 2015														*Austin*
Blank	<1	mg/L		1	1	10/29/19 11:25 AEL							M105257	
Duplicate	201	mg/L		12	12	10/29/19 11:25 AEL		194			3.80	27.1	M105257	
Reference	93	mg/L		10	10	10/29/19 11:25 AEL	100		93.0	82.6 - 108			M105257	

Metals (Total) - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Phosphorus-Total - EPA 200.7 R4.4														*Bryan*
Blank	<0.050	mg/L		0.041	0.050	11/06/19 00:29 PNS							M105405	
LCS	2.58	mg/L		0.041	0.050	11/06/19 00:32 PNS	2.50		103	84.5 - 115.4			M105405	
LCS Dup	2.58	mg/L		0.041	0.050	11/06/19 00:35 PNS	2.50		103	84.5 - 115.4	0.254	20	M105405	
Duplicate	1.45	mg/L		0.041	0.050	11/06/19 00:38 PNS		1.46			0.735	20	M105405	
Matrix Spike	3.83	mg/L		0.041	0.050	11/06/19 00:41 PNS	2.50	1.46	94.8	69.5 - 130.4			M105405	

Microbiological Analyses - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Log10 Comparison Control Limit	Batch	
E. Coli - SM9223 B 2004														*Austin*
Blank	<1.0	MPN/100 mL		1.0	1.0	10/29/19 15:10 JLL							M105278	
Dup Log10 Range		MPN/100 mL		1.0	1.0	10/29/19 15:10 JLL					0.000		M105278	
Duplicate	<1.0	MPN/100 mL		1.0	1.0	10/29/19 15:10 JLL		<1.0				1.013	M105278	

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Analytical Report

Crystal Clear SUD

Report Printed: **11/15/19** **9:22**

C034654

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
C034654-01										
Ammonia as N	SM4500-NH3 G 2011	10/31/19 8:15 JKA	Bryan	B	10.0	mL	10.0	mL	1	M105354
Carbonaceous BOD (5 day)	SM5210 B 2011	10/30/19 7:45 PMY	Austin	C	300	mL	300	mL	1	M105290
Chloride	SM4500-Cl- B 2011	11/4/19 8:18 CJO	Bryan	A	25.0	mL	100	mL	1	M105494
E. Coli	SM9223 B 2004	10/29/19 14:52 PMY	Austin	D	100	mL	100	mL	1	M105278
Nitrate/Nitrite as N	SM4500-NO3-F 2011	10/30/19 9:17 MRB	Bryan	B	1.00	mL	6.00	mL	1	M105299
Nitrite as N	SM4500 NO2- B 2011	10/30/19 10:25 JLL	Austin	F	25.0	mL	25.0	mL	1	M105311
Phosphorus-Total	EPA 200.7 R4.4	10/31/19 16:09 AOG	Bryan	G	50.0	mL	25.0	mL	1	M105405
Sulfate	ASTM D516 11	11/13/19 8:18 CJO	Bryan	A	100	mL	100	mL	1	M105686
Total Alkalinity as CaCO3 (pH4.5)	SM2320 B 2011	11/4/19 8:41 MRH	Bryan	A	50.0	mL	200	mL	1	M105507
Total Dissolved Solids	SM2540 C 2011	10/30/19 14:53 MRH	Bryan	A	50.0	mL	100	mL	1	M105288
Total Kjeldahl Nitrogen as N	EPA 351.2 R2.0	11/4/19 7:46 MRB	Bryan	B	25.0	mL	25.0	mL	1	M105492
Total Suspended Solids	SM2540 D 2015	10/29/19 11:25 AEL	Austin	H	1000	mL	1000	mL	1	M105257

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Analytical Report

Crystal Clear SUD

Report Printed: **11/15/19** **9:22**

C034654

Chain-of-Custody Summary

The following record summarizes custody for work orders sampled by Aqua-Tech Laboratories, Inc. personnel on route.

Original signatures are kept on file by Aqua-Tech Laboratories, Inc. and are available upon request.

WORK ORDER C034654

Cooler ID	Temperature °C	Condition Good?	On Ice?	Preservation Correct?	Custody Maintained by ATL?	See comments below or comments and qualifiers with analytical results explaining any "No" answers.
99	1.6	Yes	Yes	Yes	Yes	

C034654-01 Grab Sampling Begun: 10/29/19 8:44 Sampling Ended: 10/29/19 8:44

Container & Description	pH Checks / Comments	Container & Description	pH Checks / Comments	Container & Description	pH Checks / Comments
A Alk Cl SO4 TDS 1LP		B AMM NO3 TKN 0.25LP H2SO4	pH<2	C CBOD 1LP	
D Ecoli 0.1L StP Na2S2O3		E Mn Corr 0.25LP		F NO2 0.25LP	
G P 0.25LP H2SO4	pH<2	H TSS 2LP			

Sampled & Submitted to Lab by: Audrey Landrum (Route Driver) Received: 10/29/19 10:35 By Audrey Landrum (Austin)

Email information for report date:
11/7/19 13:23

C034066

Crystal Clear SUD

Attn: Regina Franke
regina@crystalclearsud.org

2370 FM 1979
San Marcos, TX 78666

Submission forms:

Due to updates by TCEQ, the submission form used for Drinking Water Revised Coliform Rule has been updated. Please contact us if you need a copy of this new Chain of Custody form.

Aqua-Tech values you as a customer and encourages you to speak with our sampling staff at 979-778-3707 option 2 or samplingbryan@aqua-techlabs.com if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

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The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not required by the State of Texas.
DWP	Accreditation through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

NELAP ACCREDITED TNI LABORATORY

TCEQ DW Lab ID TX 239

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations .
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien, Technical Director

corp@aqua-techlabs.com www.aqua-techlabs.com

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Analytical Report

Crystal Clear SUD

Report Printed: **11/7/19** **13:23**

C034066

Crystal Clear SUD Effluent

Collected: 10/31/19 09:26 by CLIENT
Received: 10/31/19 14:00 by Mark Asher

Type: Grab
Matrix: Non Potable
C-O-C #: C034066

Lab ID# C034066-01

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
BOD (5 day)	**<1**	mg/L		1	1	1	*Austin*	11/01/19 07:15 CTT	SM5210 B 2011	M105413	NEL
Total Suspended Solids	**<1**	mg/L		1	1	1	*Austin*	11/03/19 14:20 QCM	SM2540 D 2015	M105487	NEL
Metals (Total)											
Phosphorus-Total	**5.24**	mg/L		0.082	0.041	0.050	*Bryan*	11/06/19 01:50 PNS	EPA 200.7 R4.4	M105455	NEL

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
BOD (5 day) - SM5210 B 2011														*Austin*
Diln Water Blk	<0.20	mg/L		1	1	11/01/19 07:15 CTT		-0.1		< or = 0.2 mg/L			1911003	
GGA	200	mg/L		1	1	11/01/19 07:15 CTT	198		101	84.6 - 115.4			1911003	
GGA	194	mg/L		1	1	11/01/19 07:15 CTT	198		98.0	84.6 - 115.4			1911003	
GGA	214	mg/L		1	1	11/01/19 07:15 CTT	198		108	84.6 - 115.4			1911003	
Seed Blank	<1	mg/L		1	1	11/01/19 07:15 CTT							1911003	
Seed Blank	<1	mg/L		1	1	11/01/19 07:15 CTT							1911003	
Seed Blank	<1	mg/L		1	1	11/01/19 07:15 CTT							1911003	
Duplicate	35	mg/L		6	6	11/01/19 07:15 CTT		30			15.4	36.2	M105413	
Total Suspended Solids - SM2540 D 2015														*Austin*
Blank	<1	mg/L		1	1	11/03/19 14:20 QCM							M105487	
Duplicate	192	mg/L		10	10	11/03/19 14:20 QCM		184			4.26	20.2	M105487	
Reference	98	mg/L		10	10	11/03/19 14:20 QCM	100		98.0	83 - 108			M105487	

Metals (Total) - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Phosphorus-Total - EPA 200.7 R4.4														*Bryan*
Blank	<0.050	mg/L		0.041	0.050	11/06/19 01:26 PNS							M105455	
LCS	2.60	mg/L		0.041	0.050	11/06/19 01:29 PNS	2.50		104	84.5 - 115.4			M105455	
LCS Dup	2.54	mg/L		0.041	0.050	11/06/19 01:32 PNS	2.50		102	84.5 - 115.4	2.12	20	M105455	
Duplicate	5.48	mg/L		0.041	0.050	11/06/19 01:35 PNS		5.58			1.94	20	M105455	
Matrix Spike	7.83	mg/L		0.041	0.050	11/06/19 01:38 PNS	2.50	5.58	89.8	69.5 - 130.4			M105455	

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Analytical Report

Crystal Clear SUD

Report Printed: **11/7/19** **13:23**

C034066

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
C034066-01										
BOD (5 day)	SM5210 B 2011	11/1/19 7:15 CTT	Austin	A	300	mL	300	mL	1	M105413
Phosphorus-Total	EPA 200.7 R4.4	11/1/19 12:04 PNS	Bryan	B	50.0	mL	25.0	mL	1	M105455
Total Suspended Solids	SM2540 D 2015	11/3/19 14:20 QCM	Austin	C	1000	mL	1000	mL	1	M105487

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rte_COC 051118.rpt

Crystal Clear SUD

C-O-C # C034066

Lab ID	Description	Start Date	Start Time	End Date	End Time	Composite Type	Container List (Checked box indicates bottle arrived in lab)
C034066-01	Crystal Clear SUD Effluent	10/31/19	9:20 AM	- N/A -	- N/A -	Grab	☑ A BOD 1LP ☑ B P 0.25LP H2SO4 ☑ C TSS 2LP
A BOD NP Probe SM 5210 B [NEL]	A TSS NP Grav SM 2540 D [NEL]	P NP ICP EPA 200.7 [NEL]					

By relinquishing the above samples to ATL, the client agrees to the following terms: Samples will be analyzed by a method that is within ATL's' NELAP fields of accreditation. Analytes requiring a certified method that is not within ATL's fields of accreditation will be subcontracted to a NELAP accredited lab that is certified for that method. Clients will be notified of the subcontract lab's details. Other analytes not requiring accreditation will be analyzed by a compendial method. If a specific method is required, the client will note the method on this C-O-C. The client approves all method modifications documented by ATL or the subcontract lab. A current list of ATL's NELAP fields of accreditation and other methods are available on request.

DEFINITIONS:

ATL = Aqua-Tech Laboratories, Inc.

Matrix designations:
NP = Non-Potable, DW = Drinking Water, SL = Solid

Analyses Ordered:
"A" prefix indicates Austin, all others Bryan or Subcontracted, indicated by [SUB]. Name format: Analysis-Matrix-Technology-Method.

[CNR] = No NELAP certification required or available
[INF] = Informational only (not NELAC certified)
[NEL] = NELAP certified parameter
[SUB] = NELAP certified subcontracted parameter

Reagent tracking is available upon request.

CUSTODY TRANSFER:

Sample Info: "X" all that appply

			Date	Time	Sample Info
Relinquished by (print & sign)	Ryan Gray	☑ Sampler ☐ Client	10/31/19	9:28AM	☑ Iced / Chilled / Refrigerated ☐ Custody Sealed
Received by (print and sign)	Mark Asher	☒ ATL Field ☐ Client	10-31-19	1108	☒ Received Chilled / Iced ☐ Custody Transfer Unbroken
Relinquished by (print & sign)		☒ ATL Field ☐ Client	Date	Time	☐ Iced / Chilled / Refrigerated ☐ Custody Sealed
Received by (print and sign)		☐ ATL Field ☐ Client	Date	Time	☐ Received Chilled / Iced ☐ Custody Transfer Unbroken

Do not write below this line (Laboratory use only)

SAMPLE RECEIPT SUMMARY FOR WORK ORDER C034066

Lab Comments:

			Date	Time	
Relinquished by (print and sign)	Mark Asher	☐ Client ☒ ATL Field	10/31/19	14:00	☒ Iced / Chilled / Refrigerated ☐ Custody Sealed
Received by (print & sign)	Mark Asher	☒ Lab	10/31/19	14:00	☒ Received Chilled / Iced ☒ Custody Transfer Unbroken

Corrected Temperature, °C: 2.8 Sample condition good? Yes pH Paper ID: 0744948

Thermometer ID: 0715672 Preservation correct? Yes Post-Preservatives: N/A