Administrative Package Cover Page

This file contains the following documents:

1. Summary of application (in plain language)
   - English
   - Alternative Language (Spanish)
2. First Notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
   - English
   - Alternative Language (Spanish)
3. Application materials

Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

1. Resumen en lenguaje sencillo (PLS, por sus siglas en inglés) de la actividad propuesta
   - Inglés
   - Idioma alternativo (español)
2. Primer aviso (NORI, por sus siglas en inglés)
   - Inglés
   - Idioma alternativo (español)
3. Solicitud original

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT

PROPOSED PERMIT NO. WQ0016655001

APPLICATION. South Central Water Company, P.O. Box 570177, Houston, Texas 77257, has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0016655001 (EPA I.D. No. TX0146871) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 600,000 gallons per day. The domestic wastewater treatment facility will be located approximately 5.75 miles southeast of the intersection of State Highway 21 West and Farm-to-Market Road 812, near the city of Cedar Creek, in Bastrop County, Texas. The discharge route will be from the plant site to an unnamed tributary, thence to Alum Creek, thence to Walnut Creek, thence to Cedar Creek, thence to the Colorado River Above La Grange. TCEQ received this application on October 22, 2024. The permit application will be available for viewing and copying at Bastrop Public Library, Public Viewing Section, 1100 Church Street, Bastrop, in Bastrop County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.4986,30.01982&level=18

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

ADDITIONAL NOTICE. TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. **Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.**

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a

public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing.** A contested case hearing is a legal proceeding similar to a civil trial in state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period and, the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.**

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at www.tceq.texas.gov/goto/cid. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. All public comments and requests must be submitted either electronically at **https://www14.tceq.texas.gov/epic/eComment/**, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from South Central Water Company at the address stated above or by calling Mr. Jerry Ince, P.E., Ward, Getz & Associates, LLP, at 832-344-6604.

Issuance Date: November 21, 2024

Comisión de Calidad Ambiental del Estado de Texas

AVISO DE RECIBO DE LA SOLICITUD Y
EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA

PERMISO PROPUESTO NO. WQ0016655001

SOLICITUD. South Central Water Company ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para el propuesto Permiso No. WQ0016655001 (EPA I.D. No. TX 0146871 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de 600,000 por día. La planta está ubicada aproximadamente 5.75 millas al sureste de la intersección de la carretera estatal 21 West y Farm-to-Market Road 812 cerca de la ciudad de Cedar Creek en el Condado de Bastrop, Texas. La ruta de descarga es del sitio de la planta a un afluente sin nombre, de allí a Alum Creek, de allí a Walnut Creek, de allí a Cedar Creek, de allí al río Colorado por encima de La Grange. La TCEQ recibió esta solicitud el 22 octubre de 2024. La solicitud para el permiso estará disponible para leerla y copiarla en la Biblioteca Pública de Bastrop, Sección de Visualización Pública, 1100 Church Street, Bastrop, en el condado de Bastrop, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.4986,30.01982&level=18

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.**

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Ademas, puede pedir que la TCEQ ponga su nombre en una or mas de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado especifico. Si desea que se agrega su nombre en una de las listas designe cual lista(s) y envia por correo su pedido

a la Oficina del Secretario Principal de la TCEQ.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía http://www14.tceq.texas.gov/epic/eComment/ o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del South Central Water Company a la dirección indicada arriba o llamando a Sr. Jerry Ince, P.E., Ward, Getz & Associates, LLP al 832-344-6604.

Fecha de emission: 21 de noviembre de 2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. Applicants may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 TAC Section 39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS DOMESTIC WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

South Central Water Company (CN602602179) proposes to operate Cedar Creek 291 Wastewater Treatment Plant (RN_____), an domestic wastewater treatment plant. The facility will be located at approximately 5.75 miles southeast of the intersection of State Highway 21 West and Farm to Market Road 812, in Cedar Creek, Bastrop County, Texas 78612. This permit is to authorize the discharge of treated domestic wastewater to a volume not to exceed an average flow of 600,000 gallons per day.

Discharges from the facility are expected to contain free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, pH differences, and temperature differences. Domestic wastewater will be treated by an activated sludge processing plant consisting of the following treatment units: bar screens, aeration basins, digester basins, clarifiers, a lift station, and chlorine contact basins.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

AGUAS RESIDUALES DOMÉSTICAS /AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación ejecutiva fedérale de la solicitud de permiso.

South Central Water Company (CN602602179) propone operar Planta de tratamiento de aguas residuales Cedar Creek 291 (RN_____), una planta de tratamiento de aguas residuales domésticas. La instalación está ubicada en aproximadamente 5.75 millas al sureste de la intersección de la carretera estatal 21 oeste y la carretera 812 de la granja al mercado, en Cedar Creek, Condado de Bastrop, Texas 78612. Las aguas residuales domésticas serán tratadas por una planta de procesamiento de lodos activados que consta de las siguientes unidades de tratamiento: pantallas de barra, cuencas de aireación, cuencas digestoras, clarificadores, una estación de bombeo y cuencas de contacto con cloro.

Se espera que las descargas de la instalación contengan cloro libre disponible, cloro residual total, sólidos suspendidos totales, aceite y grasa, hierro total, diferencias de pH y diferencias de temperatura. Aguas residuales domésticas. están tratado por una planta de procesamiento de lodos activados que consta de las siguientes unidades de tratamiento: pantallas de barras, cuencas de aireación, cuencas de digestores, clarificadores, una estación de bombeo y cuencas de contacto con cloro.

WASTEWATER TREATMENT PLANT PERMIT APPLICATION

FOR

CEDAR CREEK 291

IN

Bastrop County, Texas

ON BEHALF OF

SOUTH CENTRAL WATER COMPANY

BY

WARD, GETZ & ASSOCIATES, PLLC
TEXAS REGISTERED ENGINEERING FIRM F-9756
2500 Tanglewilde, Suite 120
Houston, TX 77063
713.789.1900

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: South Central Water Company

PERMIT NUMBER (If new, leave blank): WQ00 Click to enter text.

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	☒	☐
Public Involvement Plan Form	☒	☐	Flow Diagram	☒	☐
Technical Report 1.0	☒	☐	Site Drawing	☒	☐
Technical Report 1.1	☒	☐	Original Photographs	☒	☐
Worksheet 2.0	☐	☐	Design Calculations	☒	☐
Worksheet 2.1	☐	☐	Solids Management Plan	☒	☐
Worksheet 3.0	☐	☐	Water Balance	☐	☐
Worksheet 3.1	☐	☐			
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

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

For any questions about this form, please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 26)

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: 5410

Check/Money Order Amount: $1,650.00

Name Printed on Check: South Central Water Company

EPAY Voucher Number: Click to enter text.

Copy of Payment Voucher enclosed? Yes ☐

Section 2. Type of Application (Instructions Page 26)

a. Check the box next to the appropriate authorization type.

☐ Publicly-Owned Domestic Wastewater

☒ Privately-Owned Domestic Wastewater

☐ Conventional Wastewater Treatment

b. Check the box next to the appropriate facility status.

☐ Active ☒ Inactive

c. Check the box next to the appropriate permit type.

- ☒ TPDES Permit
- ☐ TLAP
- ☐ TPDES Permit with TLAP component
- ☐ Subsurface Area Drip Dispersal System (SADDS)

d. Check the box next to the appropriate application type

- ☒ New
- ☐ Major Amendment *with* Renewal
- ☐ Major Amendment *without* Renewal
- ☐ Renewal without changes
- ☐ Minor Amendment *with* Renewal
- ☐ Minor Amendment *without* Renewal
- ☐ Minor Modification of permit

e. For amendments or modifications, describe the proposed changes: N/A

f. For existing permits:

Permit Number: WQ00 Click to enter text.

EPA I.D. (TPDES only): TX Click to enter text.

Expiration Date: Click to enter text.

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 26)

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

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

South Central Water Company

(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: 602602179

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. Last Name, First Name: Bailey, Doug

Title: President Credential: Click to enter text.

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: N/A Last Name, First Name: N/A

Title: N/A Credential: 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. **Appendix A**

Section 4. Application Contact Information (Instructions Page 27)

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. Last Name, First Name: Ince, Jerry

Title: Senior Client Manager Credential: P.E.

Organization Name: Ward, Getz & Associates, LLP

Mailing Address: 2500 Tanglewilde St, Suite 120 City, State, Zip Code: Houston, Texas, 77063

Phone No.: 932-344-6604 E-mail Address: jince@wga-llp.com

Check one or both: ☐ Administrative Contact ☒ Technical Contact

B. Prefix: Ms. Last Name, First Name: Anderson, Audrey

Title: Project Engineer Credential: Click to enter text.

Organization Name: Ward, Getz & Associates, LLP

Mailing Address: 2500 Tanglewilde St, Suite 120 City, State, Zip Code: Houston, Texas 77063

Phone No.: 346-771-5311 E-mail Address: aanderson@wga-llp.com

Check one or both: ☒ Administrative Contact ☐ Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

Provide the names and contact information for two individuals that can be contacted throughout the permit term.

A. Prefix: Mr. Last Name, First Name: Ince, Jerry

Title: Senior Client Manager Credential: P.E.

Organization Name: Ward, Getz & Associates, LLP

Mailing Address: 2500 Tanglewilde St, Suite 120 City, State, Zip Code: Houston, Texas 77063

Phone No.: 832-344-6604 E-mail Address: jince@wga-llp.com

B. Prefix: Ms. Last Name, First Name: Anderson, Audrey

Title: Project Engineer Credential: Click to enter text.

Organization Name: Ward, Getz & Associates, LLP

Mailing Address: 2500 Tanglewilde St, Suite 120 City, State, Zip Code: Houston, Texas 77063

Phone No.: 346-771-5311 E-mail Address: aanderson@wga-llp.com

Section 6. Billing Contact Information (Instructions Page 27)

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. Last Name, First Name: Bailey, Doug

Title: President Credential: Click to enter text.

Organization Name: South Central Water Company

Mailing Address: P.O. Box 570177 City, State, Zip Code: Houston, Texas 77257

Phone No.: 713-783-6611 E-mail Address: Doug@southcentralww.com

Section 7. DMR/MER Contact Information (Instructions Page 27)

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

Prefix: Mr. Last Name, First Name: Bailey, Doug

Title: President Credential: Click to enter text.

Organization Name: South Central Water Company

Mailing Address: P.O. Box 570177 City, State, Zip Code: Houston, Texas 77257

Phone No.: 713-783-6611 E-mail Address: Doug@southcentralww.com

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Ms. Last Name, First Name: Anderson, Audrey

Title: Project Engineer Credential: Click to enter text.

Organization Name: Ward, Getz & Associates, LLP

Mailing Address: 2500 Tanglewilde St, Suite 120 City, State, Zip Code: Houston, Texas 77063

Phone No.: 346-771-5311 E-mail Address: aanderson@wga-llp.com

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

☐ Fax

☐ Regular Mail

C. Contact permit to be listed in the Notices

Prefix: Mr. Last Name, First Name: Ince, Jerry

Title: Senior Client Manager Credential: P.E.

Organization Name: Ward, Getz & Associates, LLP

Mailing Address: 2500 Tanglewilde St, Suite 120 City, State, Zip Code: Houston, Texas 77063

Phone No.: 832-344-6604 E-mail Address: jince@wga-llp.com

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: Bastrop Public Library

Location within the building: Public Viewing Section

Physical Address of Building: 1100 Church St.

City: Bastrop County: Bastrop

Contact (Last Name, First Name): Nunez, Veronica

Phone No.: 512-332-8880 Ext.: Click to enter text.

E. Bilingual Notice Requirements

This information **is required** for **new, major amendment, minor amendment or minor modification, and renewal** 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

F. Plain Language Summary Template

Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment.

Attachment: Appendix B

G. Public Involvement Plan Form

Complete the Public Involvement Plan Form (TCEQ Form 20960) for each application for a **new permit or major amendment to a permit** and include as an attachment.

Attachment: Appendix C

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 29)

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

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):

Cedar Creek 291 Wastewater Treatment Plant

C. Owner of treatment facility: South Central Water Company

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

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

Prefix: Click to enter text. Last Name, First Name: Click to enter text.

Title: Click to enter text. Credential: Click to enter text.

Organization Name: South Central Water Company

Mailing Address: P.O. Box 570177 City, State, Zip Code: Houston, Texas 77257

Phone No.: 713-783-6611 E-mail Address: Doug@southcentralww.com

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

E. Owner of effluent disposal site:

Prefix: N/A Last Name, First Name: **N/A**

Title: **N/A** Credential: **N/A**

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

Prefix: **N/A** Last Name, First Name: **N/A**

Title: **N/A** Credential: **N/A**

Organization 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 31)

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:

Approximately 5.75 miles southeast (heading of 129.17 degrees) of the intersection of State Highway 21 West and Farm to Market Road 812 near Cedar Creek, Texas 78612

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:

Effluent discharges from an 18” pipe to an unnamed tributary for 1,384 ft; thence to Alum Creek for 4.3 miles; thence to Walnut Creek for 12.85 miles; thence to classified segment Cedar Creek 1434B.

City nearest the outfall(s): Cedar Creek

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

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 32)

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

N/A

E. 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 32)

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 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 to enter text.

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: Click to enter text.

Amount past due: Click 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 to enter text.

Amount past due: Click to enter text.

Section 13. Attachments (Instructions Page 33)

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

☐ **N/A** 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.

☐ **N/A** Attachment 1 for Individuals as co-applicants

☐ **N/A** Other Attachments. Please specify: Click to enter text.

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: Click to enter text.

Applicant: South Central Water Company

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): Doug Bailey

Signatory title: President

Signature: _____ Date: 10-10-24

(Use blue ink)

Subscribed and Sworn to before me by the said Doug Bailey

on this 10th day of October, 2024.

My commission expires on the 1st day of May, 2026.

Debbie D Davis

Notary Public

SEAL

DEBBIE D DAVIS
Notary ID #7768864
My Commission Expires
May 1, 2026

Harris

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

A. Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:

- ☒ The applicant's property boundaries
- ☒ The facility site boundaries within the applicant's property boundaries
- ☒ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
- ☒ The property boundaries of all landowners surrounding the applicant's property (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
- ☒ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
- ☒ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
- ☐ N/A The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
- ☐ N/A The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
- ☒ The property boundaries of all landowners surrounding the effluent disposal site
- ☐ N/A The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
- ☐ N/A The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located

B. ☒ Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.

C. Indicate by a check mark in which format the landowners list is submitted:

☐ USB Drive ☒ Four sets of labels

D. Provide the source of the landowners' names and mailing addresses: **Appendix H**

E. As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?

☐ Yes ☐ No

If **yes**, provide the location and foreseeable impacts and effects this application has on the land(s):

Click to enter text.

Section 2. Original Photographs (Instructions Page 38)

Provide original ground level photographs. Indicate with checkmarks that the following information is provided.

☒ At least one original photograph of the new or expanded treatment unit location

☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.

☒ At least one photograph of the existing/proposed effluent disposal site

☒ A plot plan or map showing the location and direction of each photograph

Section 3. Buffer Zone Map (Instructions Page 38)

A. Buffer zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following information. The applicant's property line and the buffer zone line may be distinguished by using dashes or symbols and appropriate labels.

- The applicant's property boundary;
- The required buffer zone; and
- Each treatment unit; and
- The distance from each treatment unit to the property boundaries.

B. Buffer zone compliance method. Indicate how the buffer zone requirements will be met. Check all that apply.

☒ Ownership

☐ Restrictive easement

☐ Nuisance odor control

☐ Variance

C. Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13(a) through (d)?

☒ Yes ☐ No

DOMESTIC WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

Attachment: Appendix F

ATTACHMENT 1

INDIVIDUAL INFORMATION

Section 1. Individual Information (Instructions Page 41)

Complete this attachment if the facility applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

Prefix (Mr., Ms., Miss): Click to enter text.

Full legal name (Last Name, First Name, Middle Initial): Click to enter text.

Driver's License or State Identification Number: Click to enter text.

Date of Birth: Click to enter text.

Mailing Address: Click to enter text.

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

Phone Number: Click to enter text. Fax Number: Click to enter text.

E-mail Address: Click to enter text.

CN: Click to enter text.

For Commission Use Only:
Customer Number:
Regulated Entity Number:
Permit Number:

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

Below is a list of common deficiencies found during the administrative review of domestic wastewater permit applications. To ensure the timely processing of this application, please review the items below and indicate by checking Yes that each item is complete and in accordance applicable rules at 30 TAC Chapters 21, 281, and 305. If an item is not required this application, indicate by checking N/A where appropriate. Please do not submit the application until the items below have been addressed.

Core Data Form (TCEQ Form No. 10400) Appendix A ☒ Yes
(Required for all application types. Must be completed in its entirety and signed. Note: Form may be signed by applicant representative.)

Correct and Current Industrial Wastewater Permit Application Forms ☒ Yes
(TCEQ Form Nos. 10053 and 10054. Version dated 6/25/2018 or later.)

Water Quality Permit Payment Submittal Form (Page 19) ☒ Yes
(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)

7.5 Minute USGS Quadrangle Topographic Map Attached Appendix G ☒ Yes
(Full-size map if seeking "New" permit. 8 ½ x 11 acceptable for Renewals and Amendments)

Current/Non-Expired, Executed Lease Agreement or Easement ☒ N/A ☐ Yes

Landowners Map Appendix H ☐ N/A ☒ Yes
(See instructions for landowner requirements)

Things to Know:

- All the items shown on the map must be labeled.
- The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant.
- The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility.
- If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway.

Landowners Cross Reference List Appendix H ☐ N/A ☒ Yes
(See instructions for landowner requirements)

Landowners Labels or USB Drive attached Appendix H ☐ N/A ☒ Yes
(See instructions for landowner requirements)

Original signature per 30 TAC § 305.44 – Blue Ink Preferred ☒ Yes
(If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached)

Plain Language Summary Appendix B ☒ Yes

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

For any questions about this form, please contact the Domestic Wastewater Permitting Team at 512-239-4671.

The following information is required for all renewal, new, and amendment applications.

Section 1. Permitted or Proposed Flows (Instructions Page 43)

A. Existing/Interim I Phase

Design Flow (MGD): 0.10

2-Hr Peak Flow (MGD): 0.40

Estimated construction start date: 10/01/2025

Estimated waste disposal start date: 10/01/2026

B. Interim II Phase

Design Flow (MGD): 0.39

2-Hr Peak Flow (MGD): 1.56

Estimated construction start date: 2028

Estimated waste disposal start date: 2029

C. Final Phase

Design Flow (MGD): 0.60

2-Hr Peak Flow (MGD): 2.40

Estimated construction start date: 2031

Estimated waste disposal start date: 2032

D. Current Operating Phase

Provide the startup date of the facility: N/A

Section 2. Treatment Process (Instructions Page 43)

A. Current Operating Phase

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, a description of *each phase* must be provided.**

Appendix I

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)
Appendix J		

C. Process Flow Diagram

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

Attachment: Appendix K

Section 3. Site Information and Drawing (Instructions Page 44)

Provide the TPDES discharge outfall latitude and longitude. Enter N/A if not applicable.

- Latitude: 30.019653
- Longitude: -97.499133

Provide the TLAP disposal site latitude and longitude. Enter N/A if not applicable.

- Latitude: N/A
- Longitude: N/A

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: Appendix L

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

The proposed wastewater treatment plant will serve the Cedar Creek 291 residential subdivision consisting of approximately 2000 single family homes in the ultimate phase of the subdivision.

Collection System Information **for wastewater TPDES permits only**: Provide information for each **uniquely owned** collection system, existing and new, served by this facility, including satellite collection systems. **Please see the instructions for a detailed explanation and examples.**

Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
N/A		Choose an item.	
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 45)

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 45)

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 45)

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: N/A

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**.

N/A

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.

Click to enter text.

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*.

N/A

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.

N/A

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 512-239-2335. 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.

N/A

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 512-239-2335.

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

N/A

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 to enter text. or TXRNE Click 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 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 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 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 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, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
N/A

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

1. Acceptance of sludge from other WWTPs

Does or will the facility accept sludge from other treatment plants at the facility site?

☐ Yes ☒ No

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

In addition, provide the date the plant started 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.

N/A

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 the date the plant started 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.

N/A

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 or will the facility 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.

N/A

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 50)

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). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

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

Table1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
$CBOD_5$, mg/l					
Total Suspended Solids, mg/l					
Ammonia Nitrogen, mg/l					
Nitrate Nitrogen, mg/l					
Total Kjeldahl Nitrogen, mg/l					
Sulfate, mg/l					
Chloride, mg/l					
Total Phosphorus, mg/l					
pH, standard units					
Dissolved Oxygen*, mg/l					
Chlorine Residual, mg/l					
E.coli (CFU/100ml) freshwater					
Entercocci (CFU/100ml) saltwater					
Total Dissolved Solids, mg/l					
Electrical Conductivity, µmohs/cm, †					
Oil & Grease, mg/l					
Alkalinity ($CaCO_3$)*, mg/l					

*TPDES permits only
†TLAP permits only

Table1.0(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 50)

Facility Operator Name: TBD

Facility Operator's License Classification and Level: TBD

Facility Operator's License Number: TBD

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 51)

A. WWTP's Biosolids Management Facility Type

Check all that apply. See instructions for guidance

- ☐ Design flow>= 1 MGD
- ☐ Serves >= 10,000 people
- ☐ Class I Sludge Management Facility (per 40 CFR § 503.9)
- ☐ Biosolids generator
- ☐ Biosolids end user – land application (onsite)
- ☐ Biosolids end user – surface disposal (onsite)
- ☐ Biosolids end user – incinerator (onsite)

B. WWTP's Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☒ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)
- ☐ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- ☐ Sludge Lagoon
- ☐ Temporary Storage (< 2 years)
- ☐ Long Term Storage (>= 2 years)
- ☐ Methane or Biogas Recovery
- ☐ Other Treatment Process: Click to enter text.

C. Biosolids Management

Provide information on the *intended* biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize

all biosolids management practices listed in the instructions. Rather indicate the management practice the facility plans to use.

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Other	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): Transport to another WWTP

D. Disposal site

Disposal site name: Austin Wastewater Processing Facility

TCEQ permit or registration number: MSW 2384

County where disposal site is located: Travis

E. Transportation method

Method of transportation (truck, train, pipe, other): Truck

Name of the hauler: Wastewater Residuals Management, LLC

Hauler registration number: 2370A

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 53)

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 53)

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: N/A
- USDA Natural Resources Conservation Service Soil Map:

  Attachment: **N/A**
- Federal Emergency Management Map:

  Attachment: **N/A**
- Site map:

  Attachment: **N/A**

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: **N/A**

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:

N/A

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: **N/A**

Total Kjeldahl Nitrogen, mg/kg: **N/A**

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: **N/A**

Phosphorus, mg/kg: **N/A**

Potassium, mg/kg: **N/A**

pH, standard units: **N/A**

Ammonia Nitrogen mg/kg: **N/A**

Arsenic: **N/A**

Cadmium: **N/A**

Chromium: **N/A**

Copper: **N/A**

Lead: **N/A**

Mercury: **N/A**

Molybdenum: **N/A**

Nickel: **N/A**

Selenium: **N/A**

Zinc: **N/A**

Total PCBs: **N/A**

Provide the following information:

Volume and frequency of sludge to the lagoon(s): **N/A**

Total dry tons stored in the lagoons(s) per 365-day period: **N/A**

Total dry tons stored in the lagoons(s) over the life of the unit: **N/A**

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.

N/A

D. Site development plan

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

N/A

Attach the following documents to the application.

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

  Attachment: **N/A**
- Copy of the closure plan

  Attachment: **N/A**
- Copy of deed recordation for the site

  Attachment: **N/A**
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

  Attachment: **N/A**
- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  Attachment: **N/A**
- Procedures to prevent the occurrence of nuisance conditions

  Attachment: **N/A**

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: N/A

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 55)

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:

N/A

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:

N/A

Section 13. RCRA/CERCLA Wastes (Instructions Page 55)

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: N/A

Section 14. Laboratory Accreditation (Instructions Page 56)

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: Doug Bailey

Title: President

Signature: _____

Date: 10-10-24

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

The following information is required for new and amendment major applications.

Section 1. Justification for Permit (Instructions Page 57)

A. Justification of permit need

Provide a detailed discussion regarding the need for any phase(s) not currently permitted. Failure to provide sufficient justification may result in the Executive Director recommending denial of the proposed phase(s) or permit.

This purpose of this permit is to serve a proposed residential subdivision that will require wastewater treatment and there are no nearby wastewater treatment facilities capable of treating the ultimate flow of 0.6 MGD.

B. Regionalization of facilities

For additional guidance, please review TCEQ's Regionalization Policy for Wastewater Treatment[1].

Provide the following information concerning the potential for regionalization of domestic wastewater treatment facilities:

1. Municipally incorporated areas

If the applicant is a city, then Item 1 is not applicable. Proceed to Item 2 Utility CCN areas.

Is any portion of the proposed service area located in an incorporated city?

☐ Yes ☒ No ☐ Not Applicable

If yes, within the city limits of: **N/A**

If yes, attach correspondence from the city.

Attachment: N/A

If consent to provide service is available from the city, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the city versus the cost of the proposed facility or expansion attached.

Attachment: N/A

2. Utility CCN areas

Is any portion of the proposed service area located inside another utility's CCN area?

☒ Yes ☐ No

[1] https://www.tceq.texas.gov/permitting/wastewater/tceq-regionalization-for-wastewater

If yes, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the CCN facilities versus the cost of the proposed facility or expansion.

Attachment: Click to enter text.

3. Nearby WWTPs or collection systems

Are there any domestic permitted wastewater treatment facilities or collection systems located within a three-mile radius of the proposed facility?

☐ Yes ☒ No

If yes, attach a list of these facilities and collection systems that includes each permittee's name and permit number, and an area map showing the location of these facilities and collection systems.

Attachment: N/A

If yes, attach proof of mailing a request for service to each facility and collection system, the letters requesting service, and correspondence from each facility and collection system.

Attachment: **N/A**

If the facility or collection system agrees to provide service, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the facility or collection system versus the cost of the proposed facility or expansion.

Attachment: N/A

Section 2. Proposed Organic Loading (Instructions Page 59)

Is this facility in operation?

☐ Yes ☒ No

If no, proceed to Item B, Proposed Organic Loading.

If yes, provide organic loading information in Item A, Current Organic Loading

A. Current organic loading

Facility Design Flow (flow being requested in application): Click to enter text.

Average Influent Organic Strength or BOD_5 Concentration in mg/l: Click to enter text.

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): Click to enter text.

Provide the source of the average organic strength or BOD_5 concentration.

Click to enter text.

B. Proposed organic loading

This table must be completed if this application is for a facility that is not in operation or if this application is to request an increased flow that will impact organic loading.

Table 1.1(1) – Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality		
Subdivision	0.6 MGD	3000
Trailer park – transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park, overnight use		
Recreational park, day use		
Office building or factory		
Motel		
Restaurant		
Hospital		
Nursing home		
Other		
TOTAL FLOW from all sources	0.6 MGD	
AVERAGE BOD_5 from all sources		300

Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 59)

A. Existing/Interim I Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 10

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 0

Dissolved Oxygen, mg/l: 6

Other: Click to enter text.

B. Interim II Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 10

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 0

Dissolved Oxygen, mg/l: 6

Other: Click to enter text.

C. Final Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 10

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 0

Dissolved Oxygen, mg/l: 6

Other: Click to enter text.

D. Disinfection Method

Identify the proposed method of disinfection.

☒ Chlorine: 2 mg/l after 27.6 minutes detention time at peak flow

Dechlorination process: N/A

☐ Ultraviolet Light: Click to enter text. seconds contact time at peak flow

☐ Other: Click to enter text.

Section 4. Design Calculations (Instructions Page 59)

Attach design calculations and plant features for each proposed phase. Example 4 of the instructions includes sample design calculations and plant features.

Attachment: Appendix N

Section 5. Facility Site (Instructions Page 60)

A. 100-year floodplain

Will the proposed facilities be located above the 100-year frequency flood level?

☒ Yes ☐ No

If no, describe measures used to protect the facility during a flood event. Include a site map showing the location of the treatment plant within the 100-year frequency flood level. If applicable, provide the size and types of protective structures.

Click to enter text.

Provide the source(s) used to determine 100-year frequency flood plain.

Click to enter text.

For a new or expansion of a facility, will a wetland or part of a wetland be filled?

☐ Yes ☒ No

If yes, has the applicant applied for a US Corps of Engineers 404 Dredge and Fill Permit?

☐ Yes ☐ No

If yes, provide the permit number: Click to enter text.

If no, provide the approximate date you anticipate submitting your application to the Corps: Click to enter text.

B. Wind rose

Attach a wind rose: Appendix O

Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

Are you requesting to include authorization to land apply sewage sludge for beneficial use on property located adjacent to the wastewater treatment facility under the wastewater permit?

☐ Yes ☒ No

If yes, attach the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)**: Click to enter text.

B. Sludge processing authorization

Identify the sludge processing, storage or disposal options that will be conducted at the wastewater treatment facility:

☐ Sludge Composting

☐ Marketing and Distribution of sludge

☐ Sludge Surface Disposal or Sludge Monofill

If any of the above, sludge options are selected, attach the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)**: Click to enter text.

Section 7. Sewage Sludge Solids Management Plan (Instructions Page 61)

Attach a solids management plan to the application.

Attachment: Appendix P

The sewage sludge solids management plan must contain the following information:

- Treatment units and processes dimensions and capacities

- Solids generated at 100, 75, 50, and 25 percent of design flow
- Mixed liquor suspended solids operating range at design and projected actual flow
- Quantity of solids to be removed and a schedule for solids removal
- Identification and ownership of the ultimate sludge disposal site
- For facultative lagoons, design life calculations, monitoring well locations and depths, and the ultimate disposal method for the sludge from the facultative lagoon

An example of a sewage sludge solids management plan has been included as Example 5 of the instructions.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 64)

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 **no**, proceed it Section 2. **If yes**, provide the following:

Owner of the drinking water supply: Click to enter text.

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

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

Attachment: Click to enter text.

Section 2. Discharge into Tidally Affected Waters (Instructions Page 64)

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

If **no**, proceed to Section 3. **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: 2-ft

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 64)

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 65)

Name of the immediate receiving waters: Unnamed Tributary

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 to enter text.

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

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

☒ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click 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 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.

Alum Creek

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.

N/A

E. Normal dry weather characteristics

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

No Flow

Date and time of observation: 8/15/2024

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☒ No

Section 5. General Characteristics of the Waterbody (Instructions Page 66)

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 to enter text.

B. Waterbody uses

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

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Domestic water supply
- ☐ Park activities
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation
- ☐ Industrial water supply
- ☐ Other(s), specify: Click to enter text.

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.1: STREAM PHYSICAL CHARACTERISTICS

Required for new applications, major facilities, and applications adding an outfall.

Worksheet 2.1 is not required for discharges to intermittent streams or discharges directly to (or within 300 feet of) a classified segment.

Section 1. General Information (Instructions Page 66)

Date of study: Click to enter text. Time of study: Click to enter text.

Stream name: Click to enter text.

Location: Click to enter text.

Type of stream upstream of existing discharge or downstream of proposed discharge (check one).

☐ Perennial ☐ Intermittent with perennial pools

Section 2. Data Collection (Instructions Page 66)

Number of stream bends that are well defined: 4

Number of stream bends that are moderately defined: Click to enter text.

Number of stream bends that are poorly defined: Click to enter text.

Number of riffles: Click to enter text.

Evidence of flow fluctuations (check one):

☐ Minor ☐ moderate ☐ severe

Indicate the observed stream uses and if there is evidence of flow fluctuations or channel obstruction/modification.

Click to enter text.

Stream transects

In the table below, provide the following information for each transect downstream of the existing or proposed discharges. Use a separate row for each transect.

Table 2.1(1) - Stream Transect Records

Stream type at transect Select riffle, run, glide, or pool. See Instructions, Definitions section.	**Transect location**	**Water surface width (ft)**	**Stream depths (ft)** at 4 to 10 points along each transect from the channel bed to the water surface. Separate the measurements with commas.
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			

Section 3. Summarize Measurements (Instructions Page 66)

Streambed slope of entire reach, from USGS map in feet/feet: Click to enter text.

Approximate drainage area above the most downstream transect (from USGS map or county highway map, in square miles): Click to enter text.

Length of stream evaluated, in feet: Click to enter text.

Number of lateral transects made: Click to enter text.

Average stream width, in feet: Click to enter text.

Average stream depth, in feet: Click to enter text.

Average stream velocity, in feet/second: Click to enter text.

Instantaneous stream flow, in cubic feet/second: Click to enter text.

Indicate flow measurement method (type of meter, floating chip timed over a fixed distance, etc.): Click to enter text.

Size of pools (large, small, moderate, none): Click to enter text.

Maximum pool depth, in feet: Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND DISPOSAL OF EFFLUENT

The following is required for renewal, new, and amendment permit applications.

Section 1. Type of Disposal System (Instructions Page 68)

Identify the method of land disposal:

- ☐ Surface application
- ☐ Irrigation
- ☐ Drip irrigation system
- ☐ Evaporation
- ☐ Subsurface application
- ☐ Subsurface soils absorption
- ☐ Subsurface area drip dispersal system
- ☐ Evapotranspiration beds
- ☐ Other (describe in detail): Click to enter text.

NOTE: All applicants without authorization or proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0.

For existing authorizations, provide Registration Number: Click to enter text.

Section 2. Land Application Site(s) (Instructions Page 68)

In table 3.0(1), provide the requested information for the land application sites. Include the agricultural or cover crop type (wheat, cotton, alfalfa, bermuda grass, native grasses, etc.), land use (golf course, hayland, pastureland, park, row crop, etc.), irrigation area, amount of effluent applied, and whether or not the public has access to the area. Specify the amount of land area and the amount of effluent that will be allotted to each agricultural or cover crop, if more than one crop will be used.

Table 3.0(1) – Land Application Site Crops

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N

Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 68)

Table 3.0(2) – Storage and Evaporation Ponds

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type

Attach a copy of a liner certification that was prepared, signed, and sealed by a Texas licensed professional engineer for each pond.

Attachment: Click to enter text.

Section 4. Flood and Runoff Protection (Instructions Page 68)

Is the land application site within the 100-year frequency flood level?

☐ Yes ☐ No

If yes, describe how the site will be protected from inundation.

Click to enter text.

Provide the source used to determine the 100-year frequency flood level:

Click to enter text.

Provide a description of tailwater controls and rainfall run-on controls used for the land application site.

Click to enter text.

Section 5. Annual Cropping Plan (Instructions Page 68)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why. **Attachment**: Click to enter text.

- Soils map with crops
- Cool and warm season plant species
- Crop yield goals
- Crop growing season
- Crop nutrient requirements
- Additional fertilizer requirements
- Minimum/maximum harvest height (for grass crops)
- Supplemental watering requirements
- Crop salt tolerances
- Harvesting method/number of harvests
- Justification for not removing existing vegetation to be irrigated

Section 6. Well and Map Information (Instructions Page 69)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation indicating why. **Attachment**: Click to enter text.

- The boundaries of the land application site(s)
- Waste disposal or treatment facility site(s)
- On-site buildings
- Buffer zones
- Effluent storage and tailwater control facilities
- All water wells within 1-mile radius of the disposal site or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All faults and sinkholes onsite and within 500 feet of the property

List and cross reference all water wells located within a half-mile radius of the disposal site or property boundaries shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

Table 3.0(3) – Water Well Data

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	

If water quality data or well log information is available please include the information in an attachment listed by Well ID.

Attachment: Click to enter text.

Section 7. Groundwater Quality (Instructions Page 69)

Attach a Groundwater Quality Technical Report which assesses the impact of the wastewater disposal system on groundwater. This report shall include an evaluation of the water wells (including the information in the well table provided in Item 6. above), the wastewater application rate, and pond liners. Indicate by a check mark that this report is provided.

Attachment: Click to enter text.

Are groundwater monitoring wells available onsite? ☐ Yes ☐ No

Do you plan to install ground water monitoring wells or lysimeters around the land application site? ☐ Yes ☐ No

If yes, provide the proposed location of the monitoring wells or lysimeters on a site map.

Attachment: Click to enter text.

Section 8. Soil Map and Soil Analyses (Instructions Page 70)

A. Soil map

Attach a USDA Soil Survey map that shows the area to be used for effluent disposal.

Attachment: Click to enter text.

B. Soil analyses

Attach the laboratory results sheets from the soil analyses. **Note**: for renewal applications, the current annual soil analyses required by the permit are acceptable as long as the test date is less than one year prior to the submission of the application.

Attachment: Click to enter text.

List all USDA designated soil series on the proposed land application site. Attach additional pages as necessary.

Table 3.0(4) – Soil Data

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number

Section 9. Effluent Monitoring Data (Instructions Page 71)

Is the facility in operation?

☐ Yes ☐ No

If no, this section is not applicable and the worksheet is complete.

If yes, provide the effluent monitoring data for the parameters regulated in the existing permit. If a parameter is not regulated in the existing permit, enter N/A.

Table 3.0(5) – Effluent Monitoring Data

Date	30 Day Avg Flow MGD	BOD5 mg/l	TSS mg/l	pH	Chlorine Residual mg/l	Acres irrigated

Provide a discussion of all persistent excursions above the permitted limits and any corrective actions taken.

Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.1: SURFACE LAND DISPOSAL OF EFFLUENT

The following is required for new and major amendment permit applications. Renewal and minor amendment permit applications may be asked for this worksheet on a case by case basis.

Section 1. Surface Disposal (Instructions Page 72)

Complete the item that applies for the method of disposal being used.

A. Irrigation

Area under irrigation, in acres: Click to enter text.

Design application frequency:

hours/day Click to enter text. **And** days/week Click to enter text.

Land grade (slope):

average percent (%): Click to enter text.

maximum percent (%): Click to enter text.

Design application rate in acre-feet/acre/year: Click to enter text.

Design total nitrogen loading rate, in lbs N/acre/year: Click to enter text.

Soil conductivity (mmhos/cm): Click to enter text.

Method of application: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations, method of application, irrigation efficiency, and nitrogen balance.

Attachment: Click to enter text.

B. Evaporation ponds

Daily average effluent flow into ponds, in gallons per day: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations.

Attachment: Click to enter text.

C. Evapotranspiration beds

Number of beds: Click to enter text.

Area of bed(s), in acres: Click to enter text.

Depth of bed(s), in feet: Click to enter text.

Void ratio of soil in the beds: Click to enter text.

Storage volume within the beds, in acre-feet: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations, and a description of the lining.

Attachment: Click to enter text.

D. Overland flow

Area used for application, in acres: Click to enter text.

Slopes for application area, percent (%): Click to enter text.

Design application rate, in gpm/foot of slope width: Click to enter text.

Slope length, in feet: Click to enter text.

Design BOD_5 loading rate, in lbs BOD_5/acre/day: Click to enter text.

Design application frequency:

hours/day: Click to enter text. **And** days/week: Click to enter text.

Attach a separate engineering report with the method of application and design requirements according to *30 TAC Chapter 217*.

Attachment: Click to enter text.

Section 2. Edwards Aquifer (Instructions Page 73)

Is the facility subject to *30 TAC Chapter 213*, Edwards Aquifer Rules?

☐ Yes ☐ No

If **yes**, is the facility located on the Edwards Aquifer Recharge Zone?

☐ Yes ☐ No

If yes, attach a geological report addressing potential recharge features.

Attachment: Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.2: SURFACE LAND DISPOSAL OF EFFLUENT

The following **is required** for **new and major amendment** permit applications. Renewal and minor amendments applicants may be asked for the worksheet on a case by case basis.

NOTE: All applicants proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0. This worksheet applies to any subsurface disposal system that **does not meet** the definition of a subsurface area drip dispersal system as defined in *30 TAC Chapter 222, Subsurface Area Drip Dispersal System.*

Section 1. Subsurface Application (Instructions Page 74)

Identify the type of system:

- ☐ Conventional Gravity Drainfield, Beds, or Trenches (new systems must be less than 5,000 GPD)
- ☐ Low Pressure Dosing
- ☐ Other, specify: Click to enter text.

Application area, in acres: Click to enter text.

Area of drainfield, in square feet: Click to enter text.

Application rate, in gal/square foot/day: Click to enter text.

Depth to groundwater, in feet: Click to enter text.

Area of trench, in square feet: Click to enter text.

Dosing duration per area, in hours: Click to enter text.

Number of beds: Click to enter text.

Dosing amount per area, in inches/day: Click to enter text.

Infiltration rate, in inches/hour: Click to enter text.

Storage volume, in gallons: Click to enter text.

Area of bed(s), in square feet: Click to enter text.

Soil Classification: Click to enter text.

Attach a separate engineering report with the information required in *30 TAC § 309.20,* excluding the requirements of *§* 309.20 b(3)(A) and (B) design analysis which may be asked for on a case by case basis. Include a description of the schedule of dosing basin rotation.

Attachment: Click to enter text.

Section 2. Edwards Aquifer (Instructions Page 74)

Is the subsurface system over the Edwards Aquifer Recharge Zone as mapped by TCEQ?

☐ Yes ☐ No

Is the subsurface system over the Edwards Aquifer Transition Zone as mapped by TCEQ?

☐ Yes ☐ No

If yes to either question, the subsurface system may be prohibited by *30 TAC §213.8*. Please call the Municipal Permits Team, at 512-239-4671, to schedule a pre-application meeting.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.3: SUBSURFACE AREA DRIP DISPERSAL (SADDS) LAND DISPOSAL OF EFFLUENT

The following **is required** for **new and major amendment** subsurface area drip dispersal system permit applications. Renewal and minor amendments applicants may be asked for the worksheet on a case by case basis.

NOTE: All applicants proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0. This worksheet applies to any subsurface disposal system that **meets** the definition of a subsurface area drip dispersal system as defined in *30 TAC Chapter 222, Subsurface Area Drip Dispersal System.*

Section 1. Administrative Information (Instructions Page 75)

A. Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility:

B. Click to enter text. Is the owner of the land where the treatment facility is located the same as the owner of the treatment facility?

☐ Yes ☐ No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the treatment facility is located.

Click to enter text.

C. Owner of the subsurface area drip dispersal system: Click to enter text.

D. Is the owner of the subsurface area drip dispersal system the same as the owner of the wastewater treatment facility or the site where the wastewater treatment facility is located?

☐ Yes ☐ No

If **no**, identify the names of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.C.

Click to enter text.

E. Owner of the land where the subsurface area drip dispersal system is located: Click to enter text.

F. Is the owner of the land where the subsurface area drip dispersal system is located the same as owner of the wastewater treatment facility, the site where the wastewater treatment facility is located, or the owner of the subsurface area drip dispersal system?

☐ Yes ☐ No

If **no**, identify the name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.E.

Click to enter text.

Section 2. Subsurface Area Drip Dispersal System (Instructions Page 75)

A. Type of system

☐ Subsurface Drip Irrigation

☐ Surface Drip Irrigation

☐ Other, specify: Click to enter text.

B. Irrigation operations

Application area, in acres: Click to enter text.

Infiltration Rate, in inches/hour: Click to enter text.

Average slope of the application area, percent (%): Click to enter text.

Maximum slope of the application area, percent (%): Click to enter text.

Storage volume, in gallons: Click to enter text.

Major soil series: Click to enter text.

Depth to groundwater, in feet: Click to enter text.

C. Application rate

Is the facility located **west** of the boundary shown in *30 TAC § 222.83* **and** also using a vegetative cover of non-native grasses over seeded with cool season grasses during the winter months (October-March)?

☐ Yes ☐ No

If yes, then the facility may propose a hydraulic application rate not to exceed 0.1 gal/square foot/day.

Is the facility located **east** of the boundary shown in *30 TAC § 222.83* **or** in any part of the state when the vegetative cover is any crop other than non-native grasses?

☐ Yes ☐ No

If **yes**, the facility must use the formula in *30 TAC §222.83* to calculate the maximum hydraulic application rate.

Do you plan to submit an alternative method to calculate the hydraulic application rate for approval by the executive director?

☐ Yes ☐ No

Hydraulic application rate, in gal/square foot/day: Click to enter text.

Nitrogen application rate, in lbs/gal/day: Click to enter text.

D. Dosing information

Number of doses per day: Click to enter text.

Dosing duration per area, in hours: Click to enter text.

Rest period between doses, in hours: Click to enter text.

Dosing amount per area, in inches/day: Click to enter text.

Number of zones: Click to enter text.

Does the proposed subsurface drip irrigation system use tree vegetative cover as a crop?

☐ Yes ☐ No

If **yes**, provide a vegetation survey by a certified arborist. Please call the Water Quality Assessment Team at (512) 239-4671 to schedule a pre-application meeting.

Attachment: Click to enter text.

Section 3. Required Plans (Instructions Page 75)

A. Recharge feature plan

Attach a Recharge Feature Plan with all information required in *30 TAC §222.79*.

Attachment: Click to enter text.

B. Soil evaluation

Attach a Soil Evaluation with all information required in *30 TAC §222.73*.

Attachment: Click to enter text.

C. Site preparation plan

Attach a Site Preparation Plan with all information required in *30 TAC §222.75*.

Attachment: Click to enter text.

D. Soil sampling/testing

Attach soil sampling and testing that includes all information required in *30 TAC §222.157*.

Attachment: Click to enter text.

Section 4. Floodway Designation (Instructions Page 76)

A. Site location

Is the existing/proposed land application site within a designated floodway?

☐ Yes ☐ No

B. Flood map

Attach either the FEMA flood map or alternate information used to determine the floodway.

Attachment: Click to enter text.

Section 5. Surface Waters in the State (Instructions Page 76)

A. Buffer Map

Attach a map showing appropriate buffers on surface waters in the state, water wells, and springs/seeps.

Attachment: Click to enter text.

B. Buffer variance request

Do you plan to request a buffer variance from water wells or waters in the state?

☐ Yes ☐ No

If yes, then attach the additional information required in *30 TAC § 222.81(c).*

Attachment: Click to enter text.

Section 6. Edwards Aquifer (Instructions Page 76)

A. Is the SADDS located over the Edwards Aquifer Recharge Zone as mapped by TCEQ?

☐ Yes ☐ No

B. Is the SADDS located over the Edwards Aquifer Transition Zone as mapped by TCEQ?

☐ Yes ☐ No

If yes to either question, then the SADDS may be prohibited by *30 TAC §213.8*. Please call the Municipal Permits Team at 512-239-4671 to schedule a pre-application meeting.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: POLLUTANT ANALYSIS REQUIREMENTS

The following **is required** for facilities with a permitted or proposed flow of **1.0 MGD or greater**, facilities with an approved **pretreatment** program, or facilities classified as a **major** facility. See instructions for further details.

This worksheet is not required minor amendments without renewal.

Section 1. Toxic Pollutants (Instructions Page 78)

For pollutants identified in Table 4.0(1), indicate the type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile				50
Aldrin				0.01
Aluminum				2.5
Anthracene				10
Antimony				5
Arsenic				0.5
Barium				3
Benzene				10
Benzidine				50
Benzo(a)anthracene				5
Benzo(a)pyrene				5
Bis(2-chloroethyl)ether				10
Bis(2-ethylhexyl)phthalate				10
Bromodichloromethane				10
Bromoform				10
Cadmium				1
Carbon Tetrachloride				2
Carbaryl				5
Chlordane*				0.2
Chlorobenzene				10
Chlorodibromomethane				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Chloroform				10
Chlorpyrifos				0.05
Chromium (Total)				3
Chromium (Tri) **(*1)**				N/A
Chromium (Hex)				3
Copper				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10
Cyanide **(*2)**				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
Dichloromethane				20
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10
Diuron				0.09
Endosulfan I (alpha)				0.01

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene				10
Fluoride				500
Guthion				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclohexane (alpha)				0.05
Hexachlorocyclohexane (beta)				0.05
gamma-Hexachlorocyclohexane (Lindane)				0.05
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Hexachlorophene				10
Lead				0.5
Malathion				0.1
Mercury				0.005
Methoxychlor				2
Methyl Ethyl Ketone				50
Mirex				0.02
Nickel				2
Nitrate-Nitrogen				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Polychlorinated Biphenyls (PCB's) **(*3)**				0.2
Pyridine				20
Selenium				5
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Thallium				0.5
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10
Vinyl Chloride				10
Zinc				5

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

Table 4.0(2)A – Metals, Cyanide, and Phenols

Pollutant	**AVG Effluent Conc. (µg/l)**	**MAX Effluent Conc. (µg/l)**	**Number of Samples**	**MAL (µg/l)**
Antimony				5
Arsenic				0.5
Beryllium				0.5
Cadmium				1
Chromium (Total)				3
Chromium (Hex)				3
Chromium (Tri) **(*1)**				N/A
Copper				2
Lead				0.5
Mercury				0.005
Nickel				2
Selenium				5
Silver				0.5
Thallium				0.5
Zinc				5
Cyanide **(*2)**				10
Phenols, Total				10

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable

Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrolein				50
Acrylonitrile				50
Benzene				10
Bromoform				10
Carbon Tetrachloride				2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroethane				50
2-Chloroethylvinyl Ether				10
Chloroform				10
Dichlorobromomethane [Bromodichloromethane]				10
1,1-Dichloroethane				10
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
1,2-Dichloropropane				10
1,3-Dichloropropylene [1,3-Dichloropropene]				10
1,2-Trans-Dichloroethylene				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Toluene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				10

Table 4.0(2)C – Acid Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
2-Chlorophenol				10
2,4-Dichlorophenol				10
2,4-Dimethylphenol				10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol				50
2-Nitrophenol				20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				10

Table 4.0(2)D – Base/Neutral Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acenaphthene				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)Anthracene				5
Benzo(a)Pyrene				5
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene				20
Benzo(k)Fluoranthene				5
Bis(2-Chloroethoxy)Methane				10
Bis(2-Chloroethyl)Ether				10
Bis(2-Chloroisopropyl)Ether				10
Bis(2-Ethylhexyl)Phthalate				10
4-Bromophenyl Phenyl Ether				10
Butyl benzyl Phthalate				10
2-Chloronaphthalene				10
4-Chlorophenyl phenyl ether				10
Chrysene				5
Dibenzo(a,h)Anthracene				5
1,2-(o)Dichlorobenzene				10
1,3-(m)Dichlorobenzene				10
1,4-(p)Dichlorobenzene				10
3,3-Dichlorobenzidine				5
Diethyl Phthalate				10
Dimethyl Phthalate				10
Di-n-Butyl Phthalate				10
2,4-Dinitrotoluene				10
2,6-Dinitrotoluene				10
Di-n-Octyl Phthalate				10
1,2-Diphenylhydrazine (as Azo-benzene)				20
Fluoranthene				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Fluorene				10
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclo-pentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-Propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Aldrin				0.01
alpha-BHC (Hexachlorocyclohexane)				0.05
beta-BHC (Hexachlorocyclohexane)				0.05
gamma-BHC (Hexachlorocyclohexane)				0.05
delta-BHC (Hexachlorocyclohexane)				0.05
Chlordane				0.2
4,4-DDT				0.02
4,4-DDE				0.1
4,4,-DDD				0.1
Dieldrin				0.02
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Endrin Aldehyde				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
PCB-1242				0.2
PCB-1254				0.2
PCB-1221				0.2
PCB-1232				0.2
PCB-1248				0.2
PCB-1260				0.2
PCB-1016				0.2
Toxaphene				0.3

* For PCBS, if all are non-detects, enter the highest non-detect preceded by a “<”.

Section 3. Dioxin/Furan Compounds

A. Indicate which of the following compounds from may be present in the influent from a contributing industrial user or significant industrial user. Check all that apply.

☐ 2,4,5-trichlorophenoxy acetic acid

Common Name 2,4,5-T, CASRN 93-76-5

☐ 2-(2,4,5-trichlorophenoxy) propanoic acid

Common Name Silvex or 2,4,5-TP, CASRN 93-72-1

☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate

Common Name Erbon, CASRN 136-25-4

☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate

Common Name Ronnel, CASRN 299-84-3

☐ 2,4,5-trichlorophenol

Common Name TCP, CASRN 95-95-4

☐ hexachlorophene

Common Name HCP, CASRN 70-30-4

For each compound identified, provide a brief description of the conditions of its/their presence at the facility.

Click to enter text.

B. Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?

☐ Yes ☐ No

If **yes**, provide a brief description of the conditions for its presence.

Click to enter text.

C. If any of the compounds in Subsection A **or** B are present, complete Table 4.0(2)F.

For pollutants identified in Table 4.0(2)F, indicate the type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

Table 4.0(2)F – Dioxin/Furan Compounds

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: TOXICITY TESTING REQUIREMENTS

The following **is required** for facilities with a current operating design flow of**1.0 MGD or greater**, with an EPA-approved **pretreatment** program (or those required to have one under 40 CFR Part 403), or are required to perform Whole Effluent Toxicity testing. See instructions for further details.

This worksheet is not required minor amendments without renewal.

Section 1. Required Tests (Instructions Page 88)

Indicate the number of 7-day chronic or 48-hour acute Whole Effluent Toxicity (WET) tests performed in the four and one-half years prior to submission of the application.

7-day Chronic: Click to enter text.

48-hour Acute: Click to enter text.

Section 2. Toxicity Reduction Evaluations (TREs)

Has this facility completed a TRE in the past four and a half years? Or is the facility currently performing a TRE?

☐ Yes ☐ No

If yes, describe the progress to date, if applicable, in identifying and confirming the toxicant.

Click to enter text.

Section 3. Summary of WET Tests

If the required biomonitoring test information has not been previously submitted via both the Discharge Monitoring Reports (DMRs) and the Table 1 (as found in the permit), provide a summary of the testing results for all valid and invalid tests performed over the past four and one-half years. Make additional copies of this table as needed.

Table 5.0(1) Summary of WET Tests

Test Date	Test Species	NOEC Survival	NOEC Sub-lethal

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following **is required** for **all publicly owned treatment works**.

Section 1. All POTWs (Instructions Page 89)

A. Industrial users (IUs)

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: Click to enter text.

Average Daily Flows, in MGD: Click to enter text.

Significant IUs – non-categorical:

Number of IUs: Click to enter text.

Average Daily Flows, in MGD: Click to enter text.

Other IUs:

Number of IUs: Click to enter text.

Average Daily Flows, in MGD: Click to enter text.

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 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 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 90)

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 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 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 to enter text.

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 90)

A. General information

Company Name: Click to enter text.

SIC Code: Click to enter text.

Contact name: Click to enter text.

Address: Click to enter text.

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

Telephone number: Click to enter text.

Email address: Click to enter text.

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).

Click to enter text.

C. Product and service information

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

Click to enter text.

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: Click to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: Click to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the *i*nstructions?

☐ 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: Subcategories: Click to enter text.

Click or tap here to enter text. Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

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.

Click to enter text.

WORKSHEET 7.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form 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 92)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): Click to enter text.

Program ID: Click to enter text.

Contact Name: Click to enter text.

Phone Number: Click to enter text.

2. Agent/Consultant Contact Information

Contact Name: Click to enter text.

Address: Click to enter text.

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

Phone Number: Click to enter text.

3. Owner/Operator Contact Information

☐ Owner ☐ Operator

Owner/Operator Name: Click to enter text.

Contact Name: Click to enter text.

Address: Click to enter text.

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

Phone Number: Click to enter text.

4. Facility Contact Information

Facility Name: Click to enter text.

Address: Click to enter text.

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

Location description (if no address is available): Click to enter text.

Facility Contact Person: Click to enter text.

Phone Number: Click to enter text.

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

Latitude: Click to enter text.

Longitude: Click to enter text.

Method of determination (GPS, TOPO, etc.): Click to enter text.

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: Click to enter text.

Number of Injection Wells: Click to enter text.

7. **Purpose**

Detailed Description regarding purpose of Injection System:

Click to enter text.

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 to enter text.

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

Phone Number: Click to enter text.

License Number: Click 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					
Tubing					
Screen					

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: Click to enter text.

System(s) Construction: Click to enter text.

Section 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: Click to enter text.

2. Receiving Formation Name of Injection Zone: Click to enter text.

3. Well/Trench Total Depth: Click to enter text.

4. Surface Elevation: Click to enter text.

5. Depth to Ground Water: Click to enter text.

6. Injection Zone Depth: Click to enter text.

7. Injection Zone vertically isolated geologically? ☐ Yes ☐ No

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

Name: Click to enter text.

Thickness: Click to enter text.

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: Click to enter text.

13. Maximum injection Rate/Volume/Pressure: Click to enter text.

14. Water wells within 1/4 mile radius (attach map as Attachment I): Click to enter text.

15. Injection wells within 1/4 mile radius (attach map as Attachment J): Click to enter text.

16. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): Click to enter text.

17. Sampling frequency: Click to enter text.

18. Known hazardous components in injection fluid: Click to enter text.

Section 5. Site History

1. Type of Facility: Click to enter text.
2. Contamination Dates: Click to enter text.
3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations (attach as Attachment L): Click to enter text.
4. Previous Remediation (attach results of any previous remediation as attachment M): Click to enter text.

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)

Appendices

Appendix A

Core Data Form

Appendix B

Plain Language Summary

Appendix C

Public Involvement Plan

Appendix D

Original Photographs

Appendix E

Buffer Zone Map

Appendix F

SPIF Form & SPIF USGS Map

Appendix G

Original USGS Map

Appendix H

Landowners Map and Cross-Referenced List

Appendix I

Treatment Process Description

Appendix J

Treatment Unit Descriptions

Appendix K

Flow Diagram

Appendix L

Site Drawing

Appendix M

CCN Service Request

Appendix N

Design Calculations

Appendix O

Wind Rose

Appendix P

Solids Management Plan

Appendix A

Core Data Form

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing 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 602602179

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

3. Regulated Entity Reference Number *(if issued)*

RN

SECTION II: Customer Information

4. General Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)

☒ 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: eg: Doe, John)*

If new Customer, enter previous Customer below:

South Central Water Company

7. TX SOS/CPA Filing Number

0161296200

8. TX State Tax ID (11 digits)

17606670101

9. Federal Tax ID (9 digits)

N/A

10. DUNS Number *(if applicable)*

N/A

11. Type of Customer:

☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ 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 ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

P.O. Box 570177

City	State	ZIP	ZIP + 4
Houston	TX	77257	

16. Country Mailing Information *(if outside USA)*

17. E-Mail Address *(if applicable)*

Doug@Southcentralww.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(713) 783-6611		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☒ 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 Core 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.)*

Cedar Creek 291 Wastewater Treatment Plant

23. Street Address of the Regulated Entity: *(No PO Boxes)*								
	City	Cedar Creek	**State**	TX	**ZIP**	78612	**ZIP + 4**	
24. County	Bastrop							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	Approximately 5.75 miles southeast (heading of 129.17 degrees) of the intersection of State Highway 21 West and Farm to Market Road 812				
26. Nearest City			**State**	**Nearest ZIP Code**	
Cedar Creek			TX	78612	

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.0192		**28. Longitude (W) In Decimal:**	-97.4986	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30°	1'	8.96"	97°	29'	54.98"

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)
4952			

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

Wastewater Utilities

34. Mailing Address:	**P.O. Box 570177**							
	City	**Houston**	**State**	**TX**	**ZIP**	**77257**	**ZIP + 4**	
35. E-Mail Address:	**Doug@Southcentralww.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(713) 783-6611		( ) -

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	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:
	Pending			

SECTION IV: Preparer Information

40. Name:	Audrey Anderson	41. Title:	Project Engineer

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(346) 771-5311		( ) -	AAnderson@wga-llp.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:	South Central Water Company	Job Title:	President
Name *(In Print)*:	Doug Bailey	Phone:	(713) 783- 6611
Signature:		Date:	10-10-24

Appendix B

Plain Language Summary

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. Applicants may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 TAC Section 39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS DOMESTIC WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

South Central Water Company (CN602602179) proposes to operate Cedar Creek 291 Wastewater Treatment Plant (RN_____), an domestic wastewater treatment plant. The facility will be located at approximately 5.75 miles southeast of the intersection of State Highway 21 West and Farm to Market Road 812, in Cedar Creek, Bastrop County, Texas 78612. This permit is to authorize the discharge of treated domestic wastewater to a volume not to exceed an average flow of 600,000 gallons per day.

Discharges from the facility are expected to contain free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, pH differences, and temperature differences. Domestic wastewater will be treated by an activated sludge processing plant consisting of the following treatment units: bar screens, aeration basins, digester basins, clarifiers, a lift station, and chlorine contact basins.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

AGUAS RESIDUALES DOMÉSTICAS /AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación ejecutiva fedérale de la solicitud de permiso.

South Central Water Company (CN602602179) propone operar Planta de tratamiento de aguas residuales Cedar Creek 291 (RN_____), una planta de tratamiento de aguas residuales domésticas. La instalación está ubicada en aproximadamente 5.75 millas al sureste de la intersección de la carretera estatal 21 oeste y la carretera 812 de la granja al mercado, en Cedar Creek, Condado de Bastrop, Texas 78612. Las aguas residuales domésticas serán tratadas por una planta de procesamiento de lodos activados que consta de las siguientes unidades de tratamiento: pantallas de barra, cuencas de aireación, cuencas digestoras, clarificadores, una estación de bombeo y cuencas de contacto con cloro.

Se espera que las descargas de la instalación contengan cloro libre disponible, cloro residual total, sólidos suspendidos totales, aceite y grasa, hierro total, diferencias de pH y diferencias de temperatura. Aguas residuales domésticas. están tratado por una planta de procesamiento de lodos activados que consta de las siguientes unidades de tratamiento: pantallas de barras, cuencas de aireación, cuencas de digestores, clarificadores, una estación de bombeo y cuencas de contacto con cloro.

INSTRUCTIONS

1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
3. Choose “operates” in this section for existing facility applications or choose “proposes to operate” for new facility applications.
4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
6. Choose the appropriate article (a or an) to complete the sentence.
7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
8. Choose “is” for an existing facility or “will be” for a new facility.
9. Enter the location of the facility in this section.
10. Enter the City nearest the facility in this section.
11. Enter the County nearest the facility in this section.
12. Enter the zip code for the facility address in this section.
13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, or major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
15. Enter the discharge types from your facility in this section (e.g., stormwater, process wastewater, once through cooling water, etc.)
16. Choose the appropriate verb tense to complete the sentence.
17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Questions or comments concerning this form may be directed to the Water Quality Division’s Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

Example

Individual Industrial Wastewater Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

ABC Corporation (CN600000000) operates the Starr Power Station (RN10000000000), a two-unit gas-fired electric generating facility. Unit 1 has a generating capacity of 393 megawatts (MWs) and Unit 2 has a generating capacity of 528 MWs. The facility is located at 1356 Starr Street, near the City of Austin, Travis County, Texas 78753.

This application is for a renewal to discharge 870,000,000 gallons per day of once through cooling water, auxiliary cooling water, and also authorizes the following waste streams monitored inside the facility (internal outfalls) before it is mixed with the other wastewaters authorized for discharge via main Outfall 001, referred to as “previously monitored effluents” (low-volume wastewater, metal-cleaning waste, and stormwater (from diked oil storage area yards and storm drains)) via Outfall 001. Low-volume waste sources, metal-cleaning waste, and stormwater drains on a continuous and flow-variable basis via internal Outfall 101.

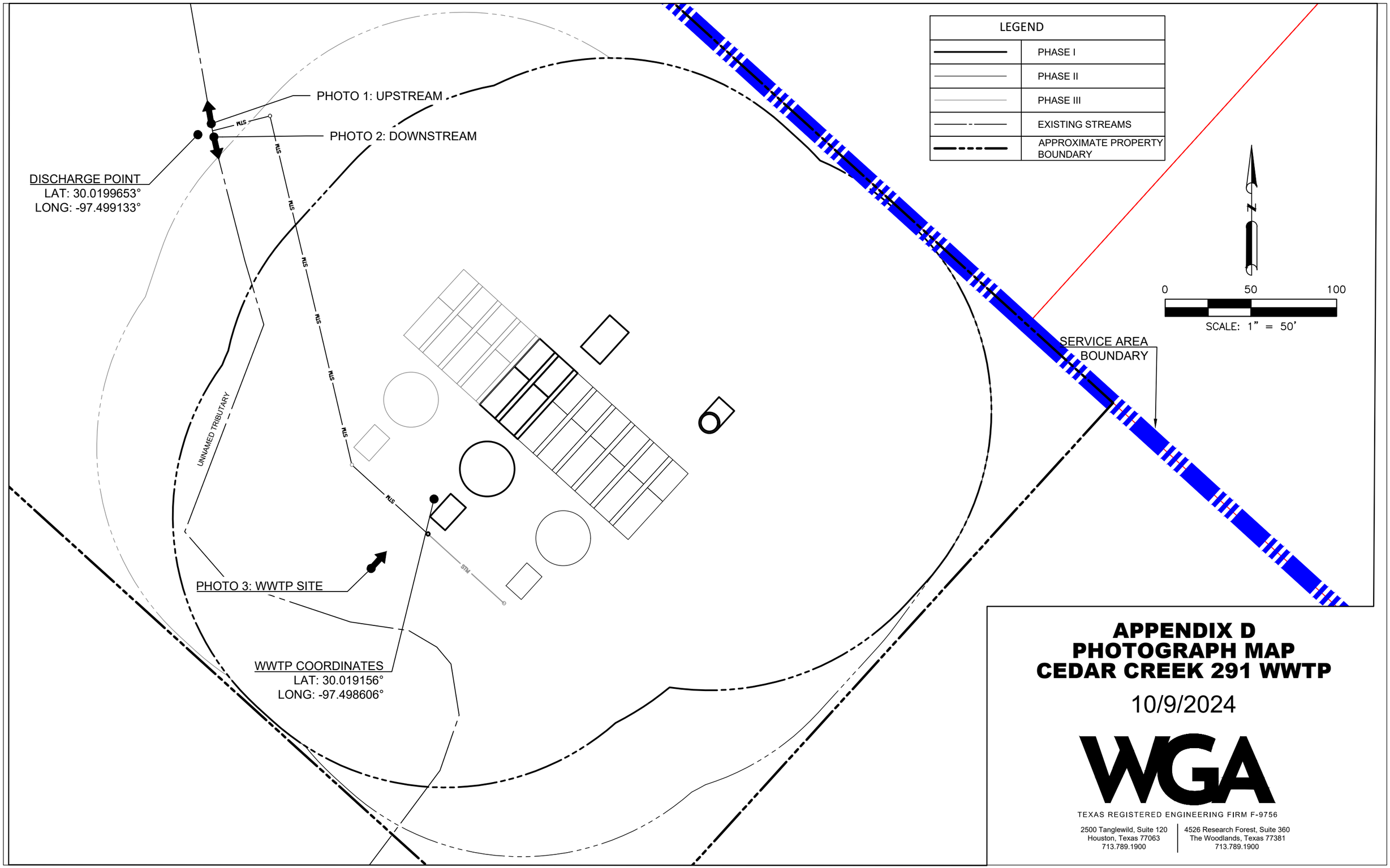
The discharge of once through cooling water via Outfall 001 and low-volume waste and metal-cleaning waste via Outfall 101 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 423. The pollutants expected from these discharges based on 40 CFR Part 423 are: free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, total copper, and pH. Temperature is also expected from these discharges. Additional potential pollutants are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0.

Cooling water and boiler make-up water are supplied by Lake Starr Reservoir. The City of Austin municipal water plant (CN600000000, PWS 00000) supplies the facility’s potable water and serves as an alternate source of boiler make-up water. Water from the Lake Starr Reservoir is withdrawn at the intake structure and treated with sodium hypochlorite to prevent biofouling and sodium bromide as a chlorine enhancer to improve efficacy and then passed through condensers and auxiliary equipment on a once-through basis to cool equipment and condense exhaust steam.

Low-volume wastewater from blowdown of boiler Units 1 and 2 and metal-cleaning wastes receive no treatment prior to discharge via Outfall 101. Plant floor and equipment drains and stormwater runoff from diked oil storage areas, yards, and storm drains are routed through an oil and water separator prior to discharge via Outfall 101. Domestic wastewater, blowdown, and backwash water from the service water filter, clarifier, and sand filter are routed to the Starr Creek Domestic Sewage Treatment Plant, TPDES Permit No. WQ0010000001, for treatment and disposal. Metal-cleaning waste from equipment cleaning is generally disposed of off-site.

Appendix D

Original Photographs



APPENDIX D
PHOTOGRAPH MAP
CEDAR CREEK 291 WWTP

10/9/2024

WGA
TEXAS REGISTERED ENGINEERING FIRM F-9756
2500 Tanglewild, Suite 120
Houston, Texas 77063
713.789.1900
4526 Research Forest, Suite 360
The Woodlands, Texas 77381
713.789.1900

PROJECT No. 000xx-00x-x

CEDAR CREEK 291 WWTP

10/9/24

JOB NO. 40003-015

DRAWN BY: AA

PHOTOGRAPH 1

WGA
TEXAS REGISTERED ENGINEERING FIRM F-9756
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Houston, Texas 77063
713.789.1900
4526 Research Forest, Suite 360
The Woodlands, Texas 77381
713.789.1900

APPENDIX D

CEDAR CREEK 291 WWTP

10/9/24

JOB NO. 40003-015

DRAWN BY: AA

PHOTOGRAPH 2

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APPENDIX D

CEDAR CREEK 291 WWTP

10/9/24

JOB NO. 40003-015

DRAWN BY: AA

PHOTOGRAPH 3

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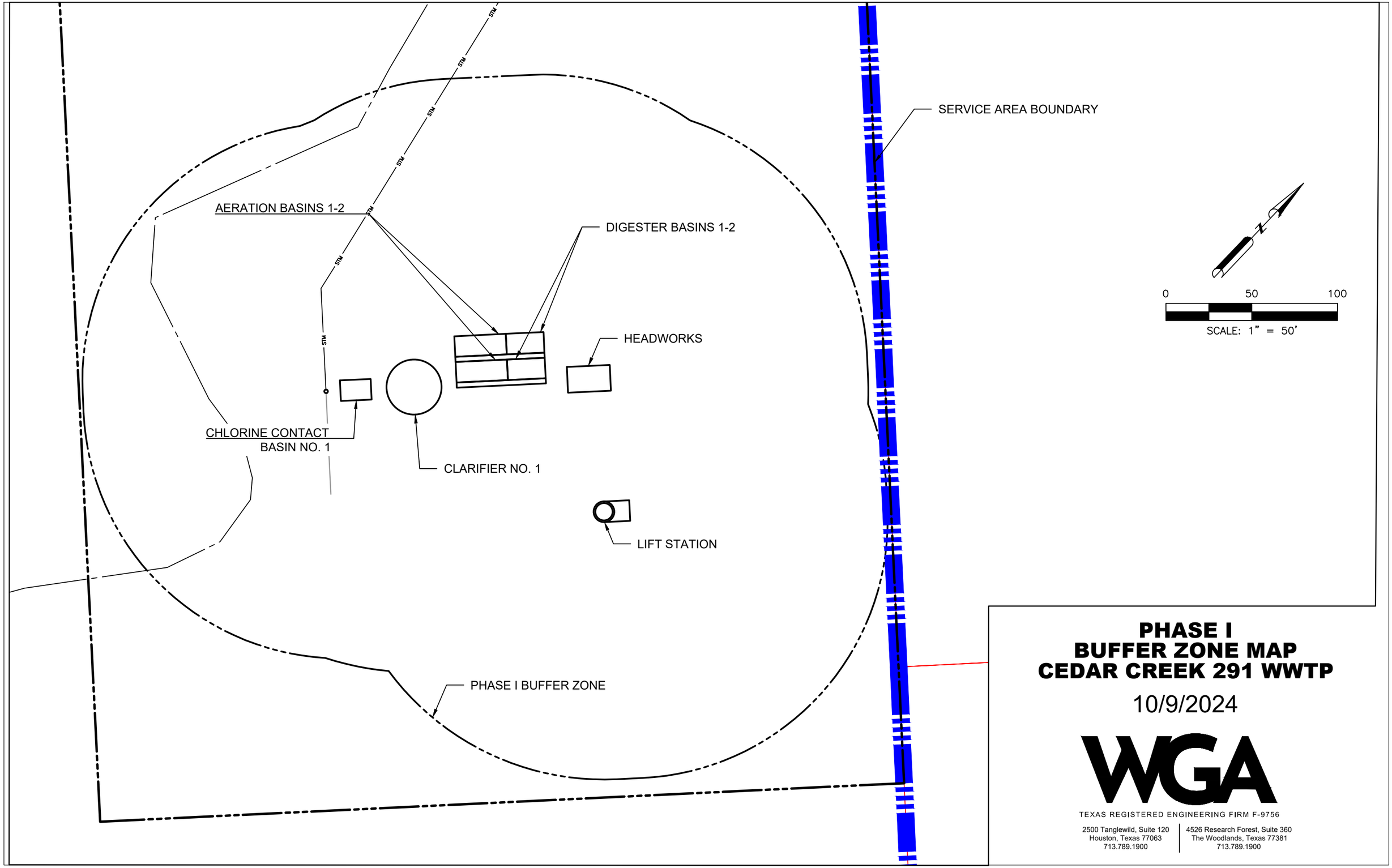
APPENDIX D

Appendix E

Buffer Zone Map



PHASE I
BUFFER ZONE MAP
CEDAR CREEK 291 WWTP

10/9/2024

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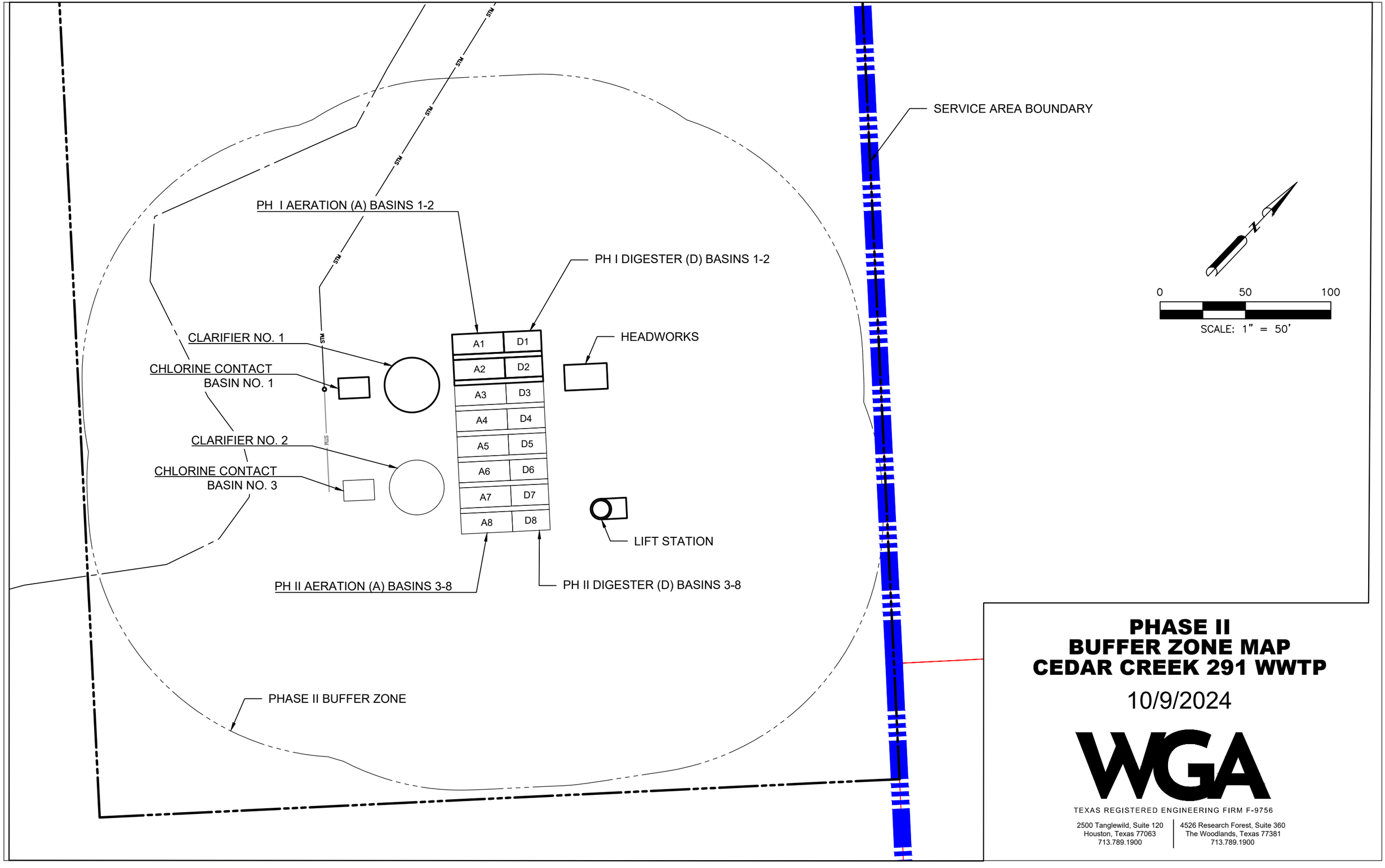
PROJECT No. 000xx-00x-x



PHASE II
BUFFER ZONE MAP
CEDAR CREEK 291 WWTP

10/9/2024

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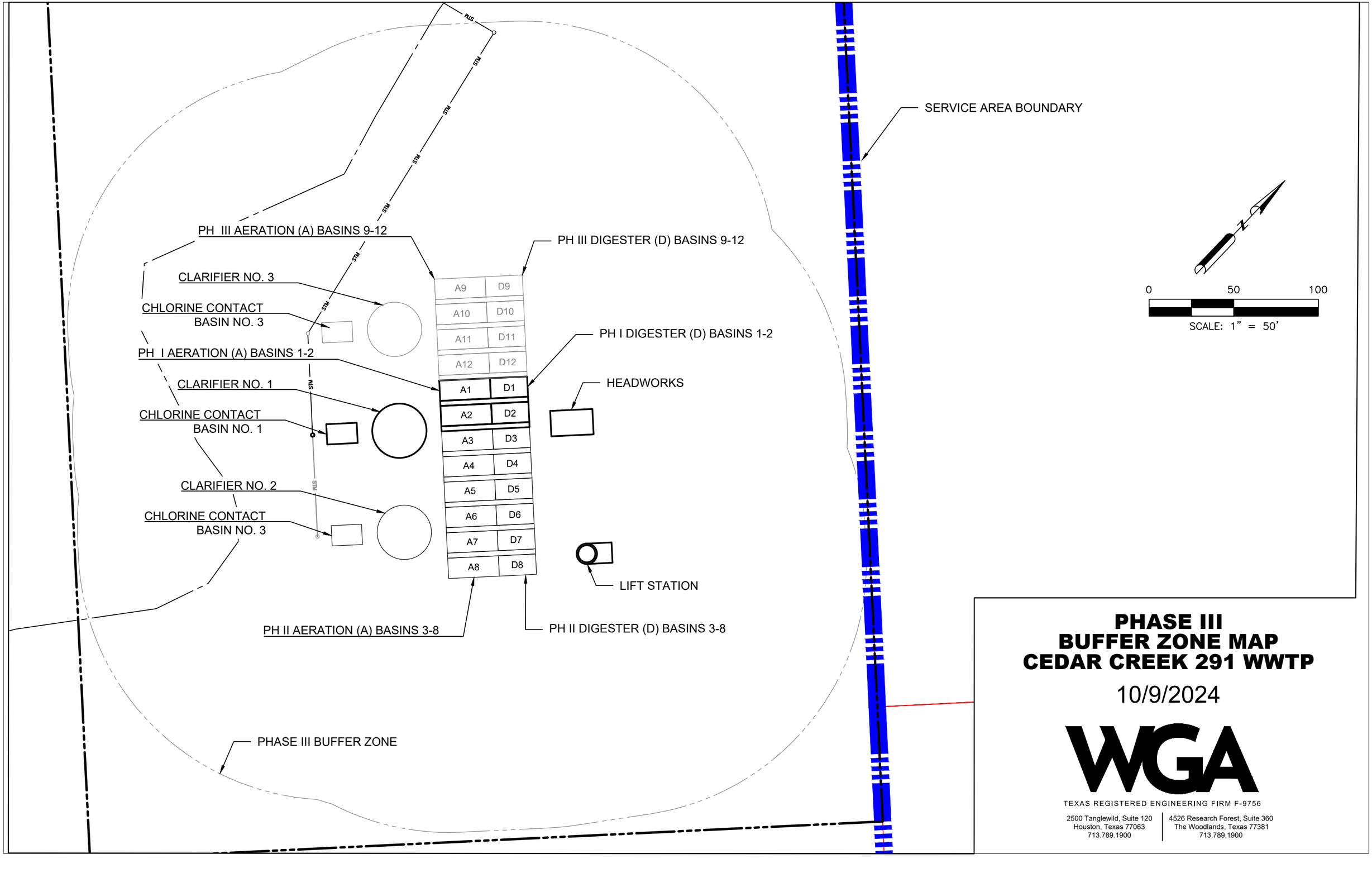
PROJECT No. 000xx-00x-x



PHASE III
BUFFER ZONE MAP
CEDAR CREEK 291 WWTP

10/9/2024

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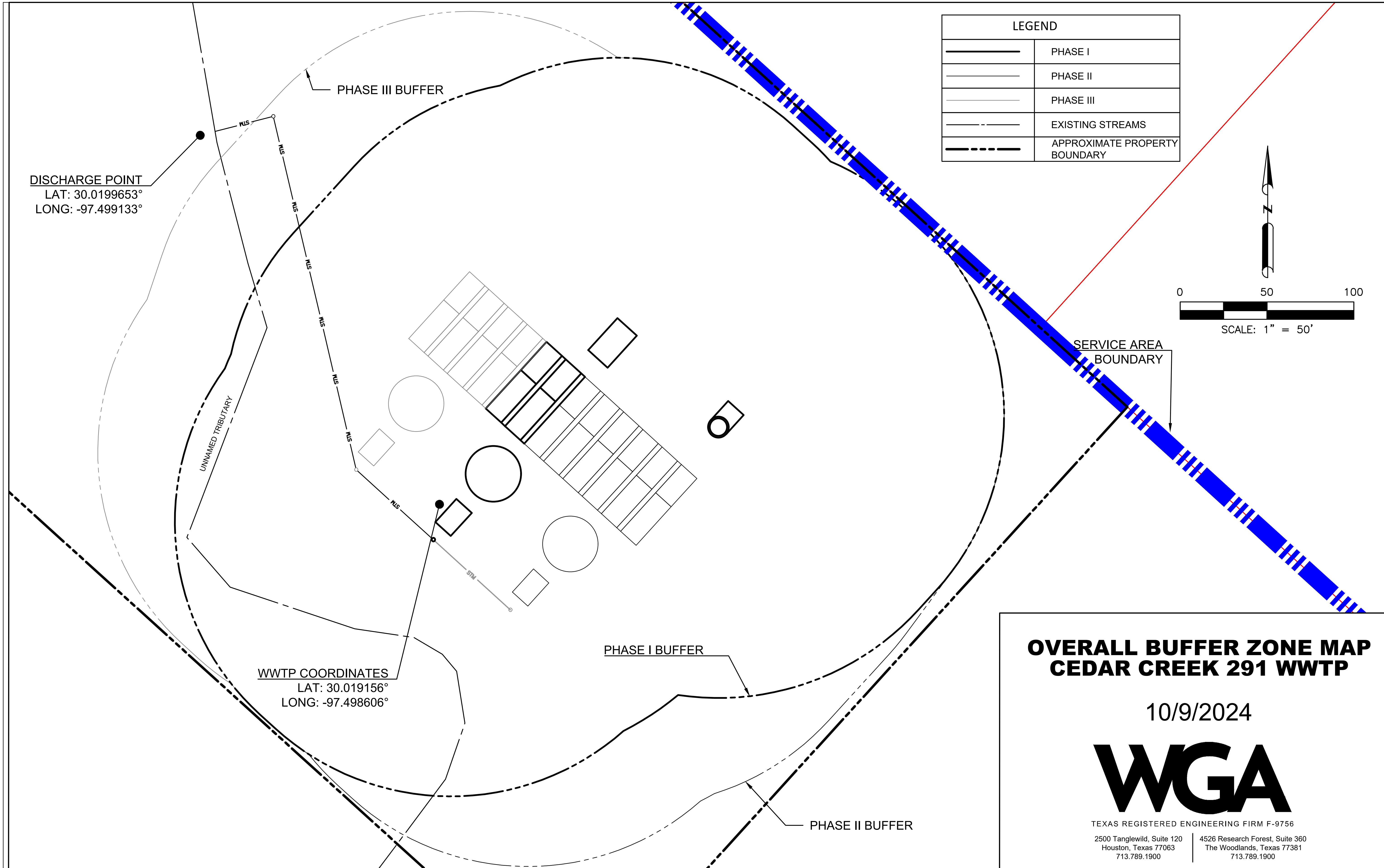
PROJECT No. 000xx-00x-x



OVERALL BUFFER ZONE MAP
CEDAR CREEK 291 WWTP

10/9/2024

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713.789.1900

PROJECT No. 000xx-00x-x

Appendix F

SPIF Form & SPIF USGS Map

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL 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)

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

Do not refer to your response to any item in the permit application form. Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: South Central Water Company

   Permit No. WQ00 Click here to enter text. EPA ID No. TX Click here to enter text.

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

   Approximately 5.75 miles southeast (heading of 129.17 degrees) of the intersection of State Highway 21 West and Farm to Market Road 812 near Cedar Creek, Texas 78612

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: Doug Bailey

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: President

Mailing Address: P.O. Box 570177

City, State, Zip Code: Houston, Texas 77257

Phone No.: 713-783-6611 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: Doug@southcentralww.com

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

N/A

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.

Effluent discharges from an 18" pipe to an unnamed tributary for 1,384 ft; thence to Alum Creek for 4.3 miles; thence to Walnut Creek for 12.85 miles; thence to classified segment Cedar Creek 1434B.

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

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

N/A

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

Native Pasture. Existing property consists of trees, shrubbery, grass, ponds, and drainage ditches.

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

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

No existing or demolished infrastructure has been recorded on the property. Primarily for agricultural and pasture use.

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

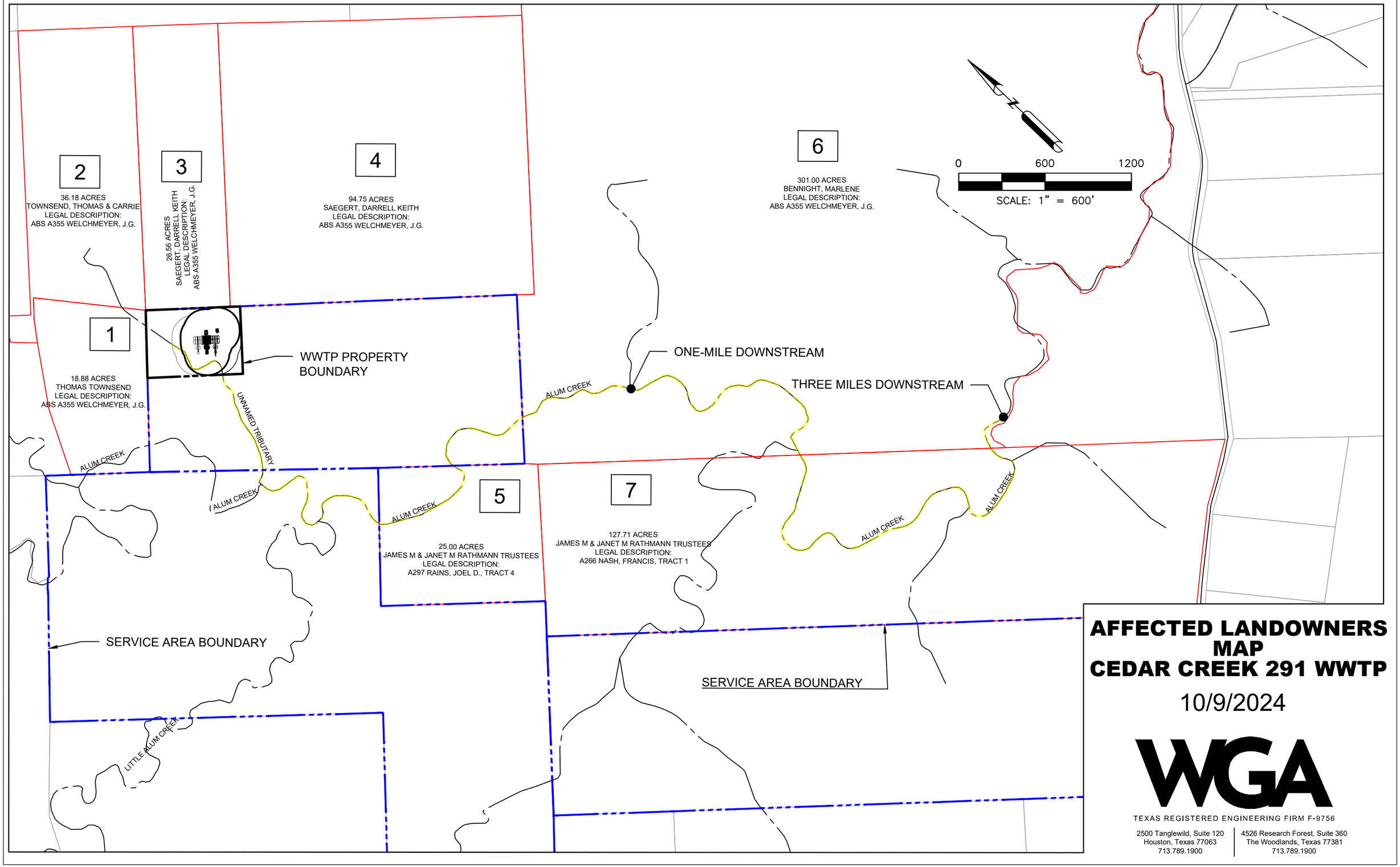
Stayed within the same family (Rathmann) since 1990 until 2021 when properties were sold to Bastrop Cedar LLC.

Appendix G

Original USGS Map

Appendix H

Landowners Map and Cross-Referenced List



AFFECTED LANDOWNERS MAP
CEDAR CREEK 291 WWTP

10/9/2024

WGA
TEXAS REGISTERED ENGINEERING FIRM F-9756
2500 Tanglewild, Suite 120
Houston, Texas 77063
713.789.1900
4526 Research Forest, Suite 360
The Woodlands, Texas 77381
713.789.1900

PROJECT No. 40003-015

AFFECTED LANDOWNERS CROSS REFERENCE LIST

REF. NO.	*OWNER*	*ADDRESS 1*	*CITY*	*STATE*	*ZIP CODE*
1	Thomas Townsend	P.O. Box 22	Bastrop	TX	78602
2	Thomas & Carrie Townsend	P.O. Box 22	Bastrop	TX	78602
3	Darrel Keith Saegart	125 Fitswilliams Ln	Bastrop	TX	78602
4	Darrel Keith Saegart	125 Fitswilliams Ln	Bastrop	TX	78602
5	James & Janet Rathman Trustees	1041 FM 20	Cedar Creek	TX	78612
6	Marlene Bennight c/o Sue Morris	2004 FM 619	Elgin	TX	78621
7	James & Janet Rathman Trustees	1041 FM 20	Cedar Creek	TX	78612

Thomas & Carrie Townsend
P.O. Box 22
Bastrop, TX 78602

Thomas Townsend
P.O. Box 22
Bastrop, TX 78602

Darrell Keith Saegert
125 S Fitswilliams Ln
Bastrop, TX 78602

Darrell Keith Saegert
125 S Fitzwilliams Ln
Bastrop, TX 78602

James & Janet Rathmann
Rathmann Trustees
1041 FM 20
Cedar Creek, TX 78612

James & Janet Rathmann
Rathmann Trustees
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Cedar Creek, TX 78612

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C/O Sue Morris
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Rathmann Trustees
1041 FM 20
Cedar Creek, TX 78612

Marlene Bennight
C/O Sue Morris
2004 FM 619
Elgin, TX 78621

Appendix I

Treatment Process Description

Treatment Process Description

Phase I:

Interim Phase I will have the capacity to serve an average daily flow of 0.1 MGD and a 2-hr peak flow of 278 GPM. The activated sludge processing plant will utilize an onsite lift station to pump raw influent from the subdivision to the elevated headworks consisting of two manual bar screens. Weir plates in the headworks flow splitting structure will evenly split the screened influent and then gravity flow into each of the two (2) aeration basins. From the aeration basins, mixed liquor will be conveyed into the clarifier. The settled effluent will be returned to the aerated activated sludge basins or wasted to the two (2) aerated digester basins. The supernatant from the clarifier will flow over the v-notch weir, into the effluent drop box, and into the aerated chlorine contact basin where flow will be conveyed through baffle walls to facilitate mixing and maintain a minimum contact time of 20-min. Disinfected effluent is then conveyed to the v-notch weir and drop box where it will gravity flow into the sampling manhole where effluent constituents will be sampled and tested. From the sampling manhole, disinfected effluent will gravity flow to the outfall into an unnamed tributary.

Phase II:

Interim Phase II will have the capacity to serve an average daily flow of 0.39 MGD and a 2-hr peak flow of 1,083.33 GPM. The activated sludge processing plant will utilize an onsite lift station to pump raw influent from the subdivision to the elevated headworks consisting of two manual bar screens. Weir plates in the headworks flow splitting structure will evenly split the screened influent and then gravity flow into each of the eight (8) aeration basins. From the aeration basins, mixed liquor will be conveyed into two (2) clarifiers. The settled effluent will be returned to the aerated activated sludge basins or wasted to the eight (8) aerated digester basins. The supernatant from the clarifiers will flow over the v-notch weir, into the effluent drop box, and into the two (2) aerated chlorine contact basins where flow will be conveyed through baffle walls to facilitate mixing and maintain a minimum contact time of 20-min. Disinfected effluent is then conveyed to the v-notch weir and drop box where it will gravity flow into the sampling manhole where effluent constituents will be sampled and tested for each basin. From each of the two (2) sampling manholes, disinfected effluent will gravity flow to a common manhole to combine flows from each chlorine contact basin before out falling into an unnamed tributary.

Phase II:

Interim Phase II will have the capacity to serve an average daily flow of 0.60 MGD and a 2-hr peak flow of 1,667 GPM. The activated sludge processing plant will utilize an onsite lift station to pump raw influent from the subdivision to the elevated headworks consisting of two manual bar screens. Weir plates in the headworks flow splitting structure will evenly split the screened influent and then gravity flow into each of the twelve (12) aeration basins. From the aeration basins, mixed liquor will be conveyed into three (3) clarifiers. The settled effluent will be returned to the aerated activated sludge basins or wasted to the twelve (12) aerated digester basins. The supernatant from the clarifiers will flow over the v-notch weir, into the effluent drop box, and into the three (3) aerated chlorine contact basins where flow will be conveyed through baffle walls to facilitate mixing and maintain a minimum contact time of 20-min. Disinfected effluent is then conveyed to the v-notch weir and drop box where it will gravity flow into the sampling manhole where effluent constituents

will be sampled and tested for each basin. From each of the three (3) sampling manholes, disinfected effluent will gravity flow to a common manhole to combine flows from each chlorine contact basin before out falling into an unnamed tributary.

Appendix J

Treatment Unit Descriptions

Phase I				
Treatment Unit	*L x W x D x SWD*	*Total Volume (ft^3)*		
Aeration Basin 1	30'x12'x12'x10.3'	3,641		
Aeration Basin 2	30'x12'x12'x10.3'	3,641		
Total Ph I Aeration Volume		**7,283**		
Digester Basin 1	22'x12'x12'x10.5'	2,772		
Digester Basin 2	22'x12'x12'x10.5'	2,772		
Total Ph I Digester Volume		**5,544**		
Chlorine Contact Basin 1	18'x12'x12'x9.5'	1,520		
Total Ph I Disinfection Basin Volume		**1,520**		
Treatment Unit	*Diameter (ft)*	*Surface Area (ft^2)*	*SWD (ft)*	*Total Volume (ft^3)*
Clarifier 1	32	804.2	10.5	8,467
	Total Ph I Clarifier Surface Area	**804.2**	**Total Ph I Clarifier Volume**	**8,467**

Phase II				
Treatment Unit	*L x W x D x SWD*	*Total Volume (ft^3)*		
Aeration Basin 1	30'x12'x12'x10.3'	3,641		
Aeration Basin 2	30'x12'x12'x10.3'	3,641		
Aeration Basin 3	30'x12'x12'x10.3'	3,641		
Aeration Basin 4	30'x12'x12'x10.3'	3,641		
Aeration Basin 5	30'x12'x12'x10.3'	3,641		
Aeration Basin 6	30'x12'x12'x10.3'	3,641		
Aeration Basin 7	30'x12'x12'x10.3'	3,641		
Aeration Basin 8	30'x12'x12'x10.3'	3,641		
Total Ph II Aeration Volume		**29,128**		
Digester Basin 1	22'x12'x12'x10.5'	2,772		
Digester Basin 2	22'x12'x12'x10.5'	2,772		
Digester Basin 3	22'x12'x12'x10.5'	2,772		
Digester Basin 4	22'x12'x12'x10.5'	2,772		
Digester Basin 5	22'x12'x12'x10.5'	2,772		
Digester Basin 6	22'x12'x12'x10.5'	2,772		
Digester Basin 7	22'x12'x12'x10.5'	2,772		
Digester Basin 8	22'x12'x12'x10.5'	2,772		
Total Ph II Digester Volume		**22,176**		
Chlorine Contact Basin 1	18'x12'x12'x9'	1,520		
Chlorine Contact Basin 2	18'x12'x12'x9'	1,520		
Total Ph II Disinfection Basin Volume		**3,040**		
Treatment Unit	*Diameter (ft)*	*Surface Area (ft^2)*	*SWD (ft)*	*Total Volume (ft^3)*
Clarifier 1	32	804	10.5	8,467
Clarifier 2	32	804	10.5	8,467
	Total Ph II Clarifier Surface Area	**1,608**	**Total Ph II Clarifier Volume**	**16,934**

Phase III

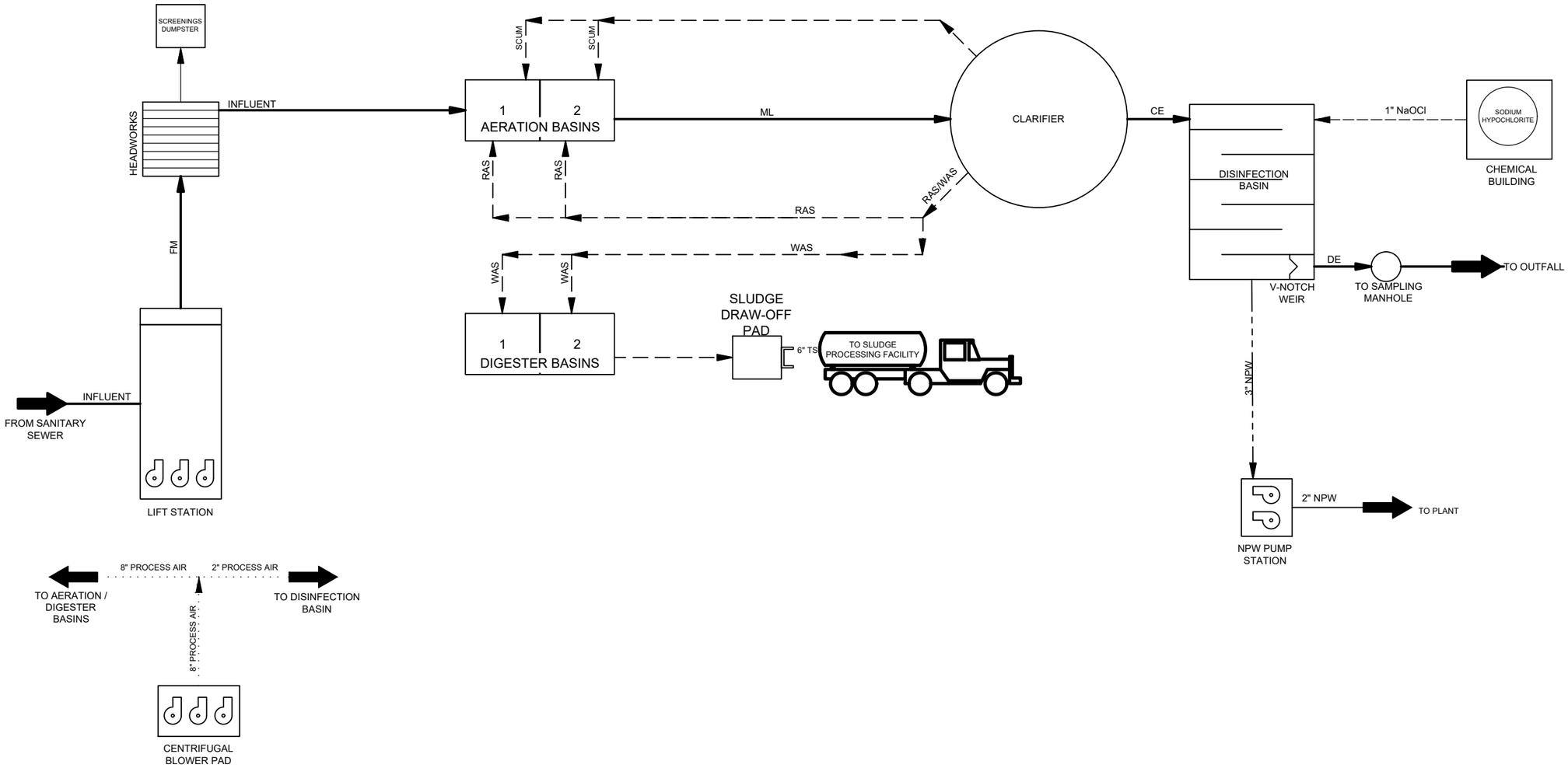
Treatment Unit	*L x W x D x SWD*	*Total Volume (ft^3)*		
Aeration Basin 1	30'x12'x12'x10.3'	3,641		
Aeration Basin 2	30'x12'x12'x10.3'	3,641		
Aeration Basin 3	30'x12'x12'x10.3'	3,641		
Aeration Basin 4	30'x12'x12'x10.3'	3,641		
Aeration Basin 5	30'x12'x12'x10.3'	3,641		
Aeration Basin 6	30'x12'x12'x10.3'	3,641		
Aeration Basin 7	30'x12'x12'x10.3'	3,641		
Aeration Basin 8	30'x12'x12'x10.3'	3,641		
Aeration Basin 9	30'x12'x12'x10.3'	3,641		
Aeration Basin 10	30'x12'x12'x10.3'	3,641		
Aeration Basin 11	30'x12'x12'x10.3'	3,641		
Aeration Basin 12	30'x12'x12'x10.3'	3,641		
Total Ph III Aeration Volume		**43,692**		
Digester Basin 1	22'x12'x12'x10.5'	2,772		
Digester Basin 2	22'x12'x12'x10.5'	2,772		
Digester Basin 3	22'x12'x12'x10.5'	2,772		
Digester Basin 4	22'x12'x12'x10.5'	2,772		
Digester Basin 5	22'x12'x12'x10.5'	2,772		
Digester Basin 6	22'x12'x12'x10.5'	2,772		
Digester Basin 7	22'x12'x12'x10.5'	2,772		
Digester Basin 8	22'x12'x12'x10.5'	2,772		
Digester Basin 9	22'x12'x12'x10.5'	2,772		
Digester Basin 10	22'x12'x12'x10.5'	2,772		
Digester Basin 11	22'x12'x12'x10.5'	2,772		
Digester Basin 12	22'x12'x12'x10.5'	2,772		
Total Ph III Digester Volume		**33,264**		
Chlorine Contact Basin 1	18'x12'x12'x9'	1,944		
Chlorine Contact Basin 2	18'x12'x12'x9'	1,944		
Chlorine Contact Basin 2	18'x12'x12'x9'	1,944		
Total Ph III Disinfection Basin Volume		**5,832**		
Treatment Unit	*Diameter (ft)*	*Surface Area (ft^2)*	*SWD (ft)*	*Total Volume (ft^3)*
Clarifier 1	32	804	10.5	8,467
Clarifier 2	32	804	10.5	8,467
Clarifier 3	32	804	10.5	8,467
	Total Ph III Clarifier Surface Area	**2,412**	**Total Ph III Clarifier Volume**	**25,401**

Appendix K

Flow Diagram

LEGEND

MAIN PROCESSES
SECONDARY PROCESSES
PROCESS AIR
NON-POTABLE WATER
CHEMICAL LINES



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TEXAS REGISTERED ENGINEERING FIRM F-9756

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Houston, Texas 77063
713.789.1900

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CEDAR CREEK 291
WASTEWATER TREATMENT
PLANT

PROCESS FLOW DIAGRAM
PHASE I - 0.10 MGD

APPENDIX K

10/11/2024

PROJECT No. 40003-015 CEDAR CREEK 291 TPDES PERMIT

LEGEND

MAIN PROCESSES

SECONDARY PROCESSES

PROCESS AIR

NON-POTABLE WATER

CHEMICAL LINES

SCREENINGS DUMPSTER

HEADWORKS

INFLUENT

FM

INFLUENT

FROM SANITARY SEWER

LIFT STATION

SCUM

1 2 3 4 AERATION BASINS

ML

CLARIFIER

CE

RAS

RAS/WAS

WAS

1 2 3 4 DIGESTER BASINS

6" TS

SLUDGE DRAW-OFF PAD

TO SLUDGE PROCESSING FACILITY

DISINFECTION BASIN

1" NaOCl

V-NOTCH WEIR

DE

TO SAMPLING MANHOLE

TO OUTFALL

SODIUM HYPOCHLORITE

CHEMICAL BUILDING

INFLUENT

5 6 7 8 AERATION BASINS

5 6 7 8 DIGESTER BASINS

8" PROCESS AIR

2" PROCESS AIR

TO AERATION / DIGESTER BASINS

TO DISINFECTION BASIN

CENTRIFUGAL

TO PLANT

2" NPW

3" NPW

NPW PUMP STATION

WGA

TEXAS REGISTERED ENGINEERING FIRM F-9756

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The Woodlands, Texas 77381
713.789.1900

2500 Tanglewild, Suite 120
Houston, Texas 77063
713.789.1900

CEDAR CREEK 291
WASTEWATER TREATMENT
PLANT

PROCESS FLOW DIAGRAM
PHASE II - 0.390 MGD

APPENDIX K

10/11/2024

PROJECT No. 40003-015 CEDAR CREEK 291 TPDES PERMIT

LEGEND

MAIN PROCESSES

SECONDARY PROCESSES

PROCESS AIR

NON-POTABLE WATER

CHEMICAL LINES

SCREENINGS DUMPSTER

HEADWORKS

INFLUENT

INFLUENT

INFLUENT

FM

INFLUENT

FROM SANITARY SEWER

LIFT STATION

8" PROCESS AIR

2" PROCESS AIR

TO AERATION / DIGESTER BASINS

TO DISINFECTION BASIN

8" PROCESS AIR

CENTRIFUGAL BLOWER PAD

SCUM

1 2 3 4 AERATION BASINS

ML

CLARIFIER

CE

RAS

RAS/WAS

WAS

1 2 3 4 DIGESTER BASINS

6" TS

SLUDGE DRAW-OFF PAD

TO SLUDGE PROCESSING FACILITY

1" NaOCl

DISINFECTION BASIN

V-NOTCH WEIR

DE

TO SAMPLING MANHOLE

TO OUTFALL

SODIUM HYPOCHLORITE

CHEMICAL BUILDING

5 6 7 8 AERATION BASINS

5 6 7 8 DIGESTER BASINS

9 10 11 12 AERATION BASINS

9 10 11 12 DIGESTER BASINS

TO PLANT

2" NPW

3" NPW

NPW PUMP STATION

WGA

TEXAS REGISTERED ENGINEERING FIRM F-9756

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CEDAR CREEK 291 WASTEWATER TREATMENT PLANT

PROCESS FLOW DIAGRAM PHASE III - 0.60 MGD

APPENDIX K

10/11/2024

PROJECT No. 40003-015 CEDAR CREEK 291 TPDES PERMIT

Drawing: Z:\40003 (South Central Wastewater)\015 – Cedar Creek 291\1.0 Permit\Work in Progress\CAD\Cedar Creek 291 WWTP – Process Flowchart.dwg Last Plotted: Fri Oct 11, 2024 – 12:14pm By: aanderson

Appendix L

Site Drawing

UNNAMED TRIBUTARY

WWTP PROPERTY BOUNDARY

ONE-MILE DOWNSTREAM

THREE MILES DOWNSTREAM

ALUM CREEK

ALUM CREEK

ALUM CREEK

ALUM CREEK

ALUM CREEK

ALUM CREEK

SERVICE AREA BOUNDARY

LITTLE ALUM CREEK

SERVICE AREA BOUNDARY

0 600 1200

SCALE: 1" = 600'

APPENDIX L
SITE DRAWING
CEDAR CREEK 291 WWTP

10/9/2024

WGA

TEXAS REGISTERED ENGINEERING FIRM F-9756

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PROJECT No. 40003-015

Appendix M

CCN Service Request

LETTER OF TRANSMITTAL

WGA

2500 Tanglewilde, Suite 120
Houston, Texas 77063

☐	Regular Mail	☐	FedEx	☐	Courier Delivery	☐	End of Day
☒	Certified Mail	☐	Overnight	☐	Courier Pickup	☐	Expedited

Date: 10/14/2024

Project No: 40003-015

To:

Aqua Water Supply Corporation
415 Old Austin Highway

Drawer P
Austin, TX 78602

Attn:

Phone Number: 346-771-5311

E-Mail: aanderson@wga-llp.com

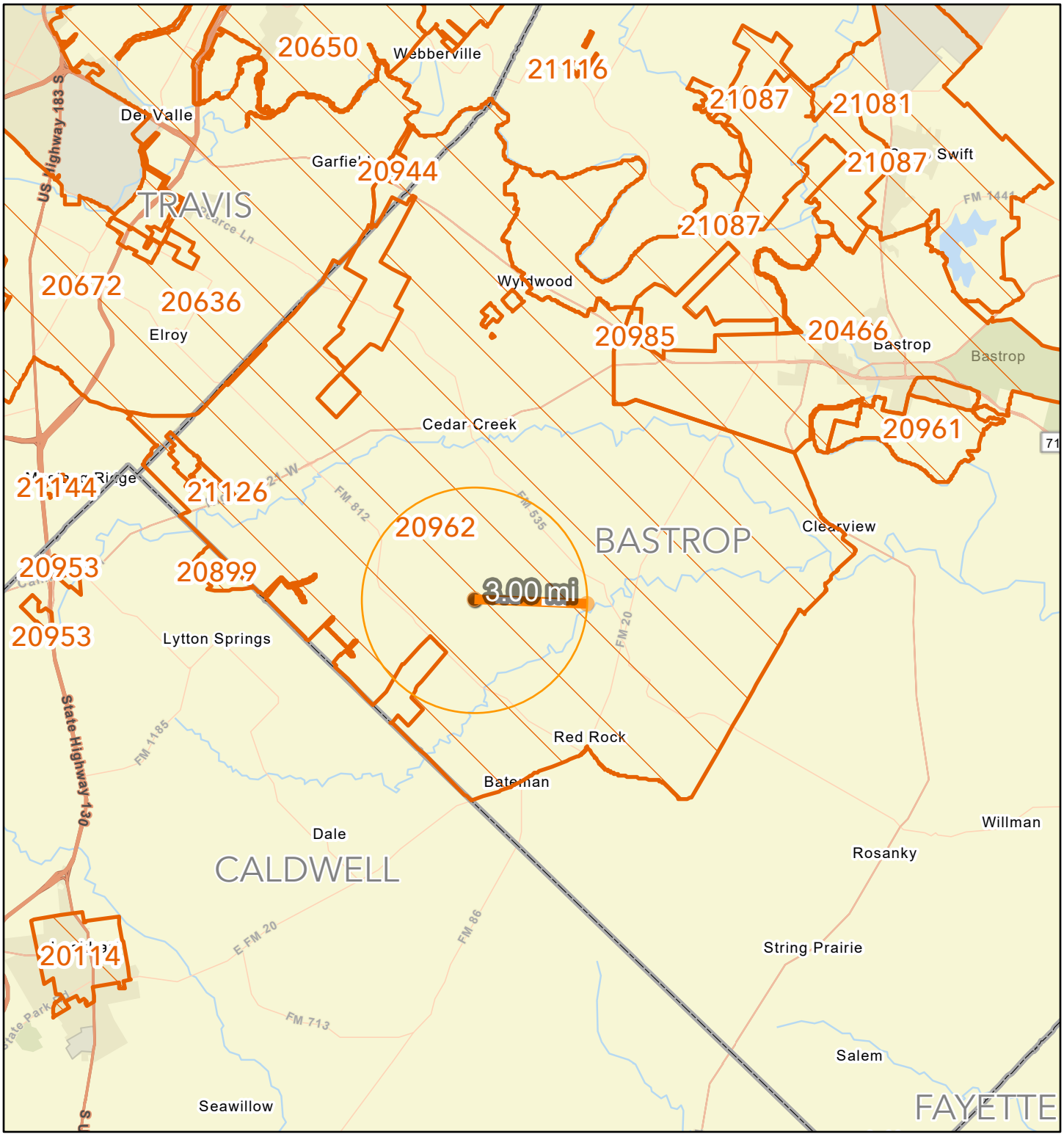
Delivery Instructions:

Re: Cedar Creek 291 WWTP TPDES Permit Application – Request for Service

Quantity	Description
1	Transmittal Letter – Please return to WGA with your response.

Audrey Anderson, Project Engineer
Ward, Getz & Associates, LLC

ArcGIS Web Map



10/8/2024, 12:30:16 PM

1:274,743

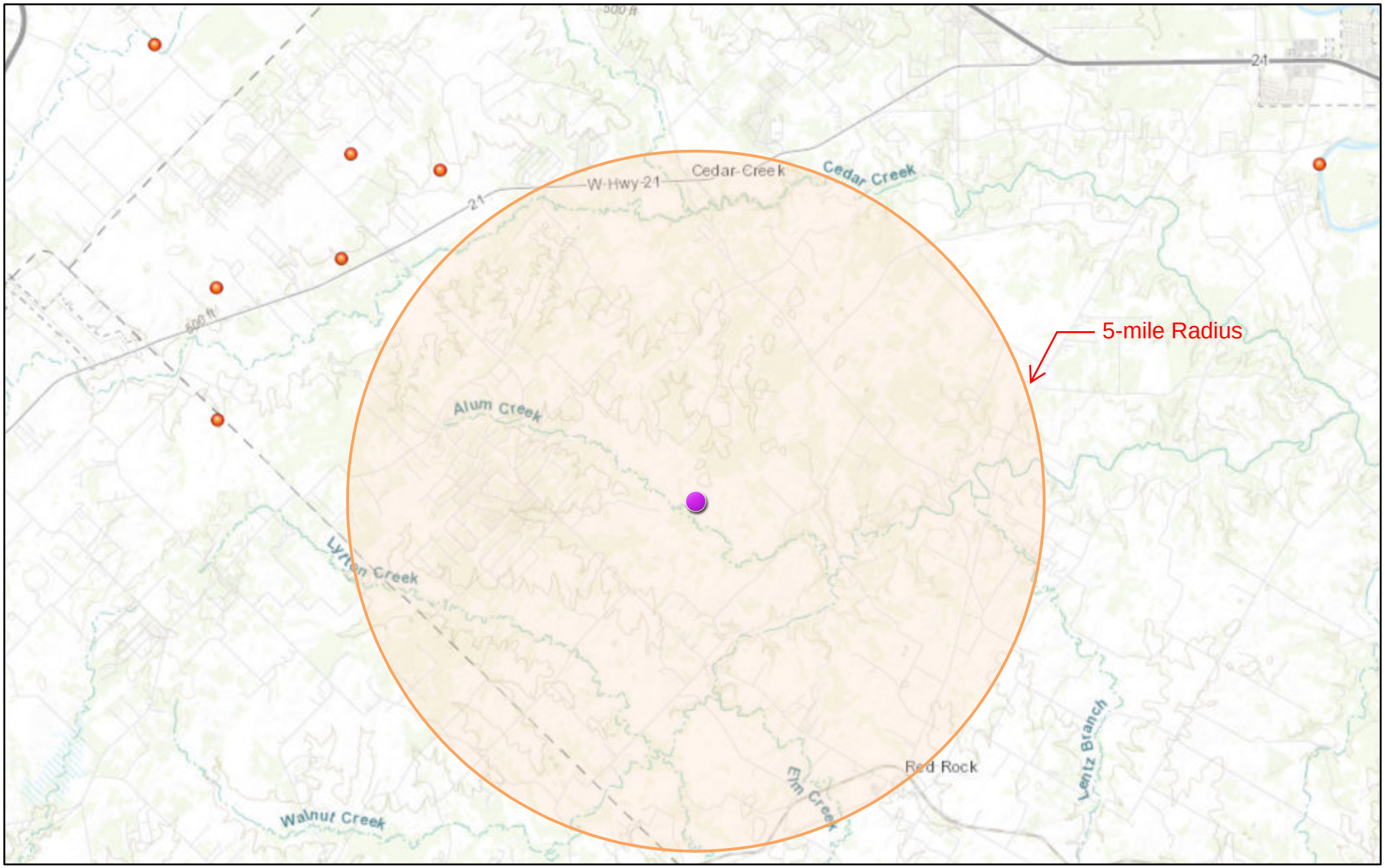
0 2 4 8 mi

0 3.25 6.5 13 km

Sewer CCN Service Areas

Counties TxDOT

Wastewater Outfalls in Texas (TCEQ) Custom Print



10/8/2024, 12:19:31 PM

Wastewater Outfalls

1:144,448

0 1 2 4 mi

0 1.75 3.5 7 km

Austin Community College, City of Austin, Texas Parks & Wildlife, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS, TCEQ

Web AppBuilder for ArcGIS

WGA
CONSULTING ENGINEERS

October 14, 2024

Aqua Water Supply Corporation
415 Old Austin Highway
Drawer P
Bastrop, Texas 78602

Greetings,

South Central Water Company – Cedar Creek 291 Residential Subdivision will be located approximately 5.75 miles southeast (heading of 129.17 degrees) of the intersection of State Highway 21 West and Farm to Market Road 812 near Cedar Creek, Bastrop County Texas, 78612 and has applied with the State of Texas for permission to install a sewage treatment plant to serve the proposed development estimated to need about 600,000 gallons per day of sewer capacity.

To be in compliance with the Texas Administrative Code, Cedar Creek 291 must contact any utility's sewer CCN area that the service area falls within to investigate interest/ability to receive the waste generated from this domestic site.

The proposed service area of Cedar Creek 291 was found within your CCN Area No. 20962 located in Bastrop County, Texas.

Please respond to Ward, Getz & Associates, LLP at the address below to inform us of:

_____Yes, Aqua WSC can take the effluent amount of 600,000 gpd.

_____ No, Aqua WSC does not have the ability to take the effluent amount of 600,000 gpd.

_____ _____
Authorized signatory Date

_____
Printed name

_____
Title

Thank you for your participation in these efforts.

Sincerely,

Audrey Anderson
E: aanderson@wga-llp.com
P: (346) 771 - 5311
Ward, Getz & Associates, LLC

Appendix N

Design Calculations

PHASE I - 0.1 MGD

PROJECT NAME: Cedar Creek 291 WWTP PH I
CLIENT: South Central Wastewater
PROJECT NUMBER: 40003-014
DATE: 10/9/2024
BY: AA
QC:

WASTEWATER AND PLANT CHARACTERIZATION

PHASE I

Flow Rates

Annual Average			0.10	MGD	69	GPM	0.16 CFS
Peak Month	Factor	1.5	0.15	MGD	104	GPM	0.23 CFS
Peak 2-Hour	Factor	4	0.40	MGD	278	GPM	0.62 CFS
Min. Month	Factor	0.5	0.05	MGD	35	GPM	0.08 CFS

Raw Wastewater Concentrations

	Avg.	2-Hour Peak	Peak Month	Min. Month		
BOD (total)	300	100	250	200	mg/L	Assumed
BOD (soluble)	180				mg/L	
TSS	300				mg/L	
VSS	240				mg/L	
TKN	50				mg/L	
NH3-N	40				mg/L	
TP					mg/L	

Effluent Requirements

BOD	10	mg/L
TSS	15	mg/L
NH3-N	2	mg/L
TP		mg/L
DO		mg/L

Select Treatment Processes from the List

Preliminary Treatment	Coarse Screening
Primary Treatment	None
Biological Treatment	Conventional Activated Sludge w/ Nitrification, @ Min.
Solids Treatment	Aerobic Digestion + Dewatering

ACTIVATED SLUDGE DESIGN

WASTEWATER CHARACTERISTICS

INFLUENT MASS LOADING		
BOD5 (AVG)	250.2	lbs/day
BOD5 (2-HR PEAK)	333.6	lbs/day
BOD5 (PEAK MONTH)	312.8	lbs/day
BOD5 (MIN MONTH)	83.4	lbs/day
TSS	250.2	lbs/day
NH_3	33.4	lbs/day
TKN	41.7	lbs/day
EFFLUENT COMPOSITION (ASSUMED FOR CONSERVATIVE DESIGN)		
BOD5	10.0	mg/L
TSS	15.0	mg/L
NH_3	3.0	mg/L
TKN	0.0	mg/L

AERATION BASIN

Conventional Activated Sludge w/ Nitrification, @ Min. Temp > 15°C

Description	Value	Unit
AERATION BASIN CALCULATIONS - TCEQ TRADITIONAL DESIGN - TCEQ 217, SUBCHAPTER F		
Aeration Basin Maximum Organic Loading	35.0	lbs/day/1000 ft^3
Minimum Number of Basins (For Flow < 0.4 MGD)	2.0	EA
BOD Removal Credit for Preliminary and Primary Treatment (Optional)	0%	
Total Peak BOD Loading (Based on Design Flow)	250	lbs/day
Total Aeration Basin Volume Required	7,149	ft^3

AERATION BASIN SIZING		
Proposed Number of Basins	2.0	
Side Water Depth of Basins	10.3	ft
Freeboard	1.5	ft
Total Depth of Basin	12.0	ft
Diffuser Submergence	9.8	ft
Required Volume of Each Aeration Basin	3,574	ft^3
Surface Area of Each Basin	346	ft^2
Width to Length Ratio (1:X)	2.5	
Required Width of Each Basin	12.0	ft
Required Length of Each Basin	30	ft
Proposed Volume of Each Aeration Basin	3,641	ft^3
Proposed Total Aeration Basin Volume	7,283	ft^3

PHASE I - 0.1 MGD

WASTEWATER CHARACTERISTICS		
Description	**Value**	**Unit**
Influent BOD_5	300.0	mg/L
Influent TSS	300.0	mg/L
Influent NH_3	40.0	mg/L
Daily Flow (Q_{AVE})	200,000.0	gpd
Daily Flow (Q_{AVE})	138.9	gpm
Daily Flow (Q_{AVE})	0.310	cfs
2-hr Peak Flow (Q_{PK})	800,000	gpd
2-hr Peak Flow (Q_{PK})	555.6	gpm
2-hr Peak Flow (Q_{PK})	1.240	cfs
NH_3	66.9	lbs/day
BOD_5	501.6	lbs/day
TSS	501.6	lbs/day

Description
Conventional Activated Sludge w/ Nitrification, @ Min. Temp > 15°C

SECONDARY CLARIFIER		
Description	**Value**	**Unit**
Number of Clarifiers	1.0	Ea
Average Flow Per Clarifier	0.20	MGD
Peak Flow Per Clarifier	0.80	MGD
Clarifier Shape (Round, Octagonal, Square)	Round	
Design Weir Shape (Round, Segmented)	Round	
Design Number of Segments (Leave Blank If Designed Round)		

SURFACE AREA DESIGN - TCEQ 217.154 (c)(1)		
TCEQ Max Surface Loading (Q_{AVG}) TCEQ 317.4 (d)(5)	700	gal/day/ft^2
TCEQ Max Surface Loading (Q_{PK}) TCEQ 217.154 (c)(1)	1,200	gal/day/ft^2
Design Diameter	**32.0**	ft
Surface Area Required at Peak Flow Per Clarifier	666.7	ft^2
Surface Area Required for All Clarifiers at Peak Flow	666.7	ft^2
Proposed Surface Area Per Clarifier	804.2	ft^2
Total Proposed Surface Area for All Clarifiers	804.2	ft^2
Actual Design Surface Loading at Design Flow (Q_{AVE})	248.7	gal/day/ft^2
Actual Design Surface Loading at Peak Flow (Q_{PK})	994.7	gal/day/ft^2

SIDE WATER DEPTH - TCEQ 217.152 (g)		
Side Water Depth For Clarifier Surface Area Greater Than 300 sqft.	10	ft
Side Water Depth For Clarifier Surface Area Equal To Or Less Than 300 sqft.	8	ft
Controlling Minimum Depth Requirement	10.0	ft
Proposed Clarifier Side Water Depth (Not Total Depth)	**10.5**	ft
Design Floor Slope (1:X)	12.0	
Design Cone Depth (Including 1:12, sloped bottom)	1.3	ft
Free Board (Minimum 1 feet)	1.0	ft
Total Depth of Clarifier	12.863	ft
Design Total Depth of Clarifier	**12.0**	ft
HYDRAULIC DETENTION TIME - TCEQ 217.154 (c)(1)		

PHASE I - 0.1 MGD

WASTEWATER CHARACTERISTICS		
Description	**Value**	**Unit**
TCEQ Min Detention Time (Q_{AVE})	2.6	hours
TCEQ Min Detention Time (Q_{PK})	1.8	hours
Flow per Clarifier for Hydraulic Detention Time @ Design Flow (w/ Recycle)	0.20	MGD
Flow per Clarifier for Hydraulic Detention Time @ Peak Flow (w/ Recycle)	0.80	MGD
Required Treatment Volume At Design Flow for Each Clarifier	2,896.6	ft^3
Required Treatment Volume At Peak Flow for Each Clarifier	8,021.4	ft^3
Proposed Treatment Volume for Each Clarifier	8,468.7	ft^3
Actual Hydraulic Detention Time at Design Flow	7.6	hours
Actual Hydraulic Detention Time at Peak Flow	1.9	hours

SOLIDS LOADING RATE - TCEQ 317.4 (d)(5)		
Totals Solids to Clarifier	20,016.0	lbs/day
Proposed Surface Area of Clarifier	804.2	ft^2
Loading Rate of Solids to Clarifier	24.9	$lbs/day/ft^2$
TCEQ Maximum Loading Rate	50.0	$lbs/day/ft^2$

EFFLUENT WEIR DESIGN - TCEQ 217.152 (d)		
Weir loading (For Plants with Design Flows 1.0 MGD or less)	20,000	gal/day/ft
Weir loading (For Plants with Design Flows Over 1.0 MGD)	30,000	gal/day/ft
Controlling Weir Loading Criteria	20,000.0	gal/day/ft
Total Length of Weir Required Per Clarifier @ Peak Flow	40.0	ft
Total Length of Weir Required For All Clarifiers @ Peak Flow	40.0	ft
Proposed Weir Distance from Wall	1.0	ft
Diameter of Effluent Weir	30.0	ft
Design Weir Length Per Clarifier	94.2	ft
Total Design Weir Length	94.2	ft
Actual Surface Area Loading @ Peak Flow	8,488.3	$gal/day/ft^2$
Actual Surface Area Loading @ Average Flow	2,122.1	$gal/day/ft^2$

TORQUE RATINGS OF DRIVES AND RAKES		
Resistive Force of Secondary Sludge (W)	6.0	lb/ft
Running Torque (Wr^2)	1,536.0	ft-lbs

RETURN ACTIVATED SLUDGE FLOW RATES - TCEQ 217.152 (j)		
Lower Limit Underflow Rate - TCEQ 217.152(j)	200	gpd/ft^2
Minimum RAS Flow Rate (per clarifier)	111.7	gpm
Upper Limit Underflow Rate - TCEQ 217.152(j)	400	gpd/ft^2
Maximum RAS Flow Rate (per clarifier)	223.4	gpm
Combined Upper Limit RAS Underflow Rate for Plant	223.4	gpm

STILLING WELL DESIGN		
Maximum Stilling Well Velocity (@ Peak Flow) TCEQ 217.152 (a)(4)	0.15	ft/sec
Peak Flow For Individual Clarifier	0.80	MGD
Total Area Required	8.3	ft^2
Diameter of Each Stilling Well	6.0	ft
Area of Each Stilling Well	28.3	ft^2

TCEQ DESIGN CRITERIA (CHAPTER 317.5 (B))		
Minimum Detention Time	15.0	days
Volume Requirement	20.0	ft^3/lb BOD_5/day
Aeration Requirement	30.0	scfm/1000 ft^3
If Mechanical Aeration is Used	1.5	HP/1000 ft^3
TCEQ DESIGN CRITERIA (CHAPTER 217, SUBCHAPTER J)		
Minimum Temperature	15.0	deg C
Required Minimum Detention Time	60.0	days
Minimum Volatile Solids Loading Rate	100.0	lb/1000 ft^3/day
Maximum Volatile Solids Loading Rate	200.0	lb/1000 ft^3/day
Aeration Requirement	20.0	SCFM/1000 ft^3
NOTE: Aerobic digester has to be sized for average day flow		
Biodegradable Volatile Solids in WAS	0.7	lb VS/BOD removed
Destruction	0.3	lb VS/BOD removed
Note: Typical minimum Solids Retention Time (SRT) maintained in WWTPs is 8 days. Secondary		
Influent Solids	250	lbs/day
Digested Solids Production	198	lbs/day
Average Digested Solids Production	224	lbs/day
Total Sludge Production, lbs/day	224	lbs/day
Assumed Average Dig. Conc., mg/l	15,000.0	mg/l
Total Sludge to Aerobic Digester	1,790.00	gal/d
Volume Required Based on Min. Detention Time @ 60 Days	14,358.29	ft^3
Volume Required Based on Min. Detention Time @ 15 Days	3,589.57	ft^3
CHECK IF CHAPTER 217 VOLATILE SOLIDS LOADING RATE REQUIREMENTS CAN BE MET		
Volatile Suspended Solids Loading	175	lbs/day
Volatile Solids Loading Rate for 60 Days Storage Volume	0.00073	lb/1000 ft^3
Volatile Solids Loading Rate	**ERROR!**	
Note: It is not possible to meet both the min. required detention time and min. required VS solids loading rate requirements without significant thickening before the sludge is stabilized in the digester. Hence, it is prudent to just meet the required min. detention time alone. Also, if the sludge is to be disposed of in a landfill, sludge stabilization will not be required and a full detention time is not necessary. When a full dettention time is not provided, the basin will not be a true aerobic digester; instead, it will be reconfigured as a sludge holding tank.		
SLUDGE HOLDING TANK DESIGN		
Number of Basins	2.0	Ea
Freeboard	1.5	ft
Side Water Depth	10.5	ft
Total Required Depth	12.0	ft
Actual Tank Depth	12.0	ft
Width	12.0	ft
Length	22.0	ft
Design Volume	5,544	ft^3
DESIGN CHECK		
Detention Time	23.17	days
Design Volume to Loading Ratio	22.16	ft^3/lb BOD_5/day

WASTEWATER CHARACTERISTICS		
Design Flow Rate (Average Daily Flow)	0.20	MGD
Design Flow Rate (2-Hour Peak Flow)	0.80	MGD

CHLORINE CONTACT CHAMBER		
Description	**Value**	**Unit**
TCEQ Min Detention Time (Q_{PK}) (TCEQ217.281(b)(1)	20.0	min
TCEQ Required Minimum Volume	1,485.4	ft^3
TCEQ Required Minimum Volume	11,111.1	gal

Chlorine Contact Basin Sizing (Excluding Chlorine Mixing Chamber)		
Design Number of Trains	1.0	
Design Side Water Depth at Peak Flow	9.5	ft
Design Width of Basin	12.0	ft
Design Channel Width	2.0	ft
Design Channel Length (Assumes 40:1 L:W ratio per TCEQ 217.281(a)(2))	80.0	ft
Number of Partition	8.0	ea
DESIGN LENGTH OF BASIN	18.0	ft
PROPOSED VOLUME	1,520.0	ft^3
ACTUAL CCB VOLUME	2,052.0	ft^3
Actual Detention Time at Peak Flow	27.6	min
ACTUAL CHANNEL LENGTH	108.0	ft

PROJECT NAME:	**Cedar Creek 291 WWTP PH II**	**DATE:**	**10/9/2024**
CLIENT:	**South Central Wastewater**	**BY:**	**AA**
PROJECT NUMBER:	**40003-014**	**QC:**	

WASTEWATER AND PLANT CHARACTERIZATION

PHASE II

Flow Rates

Annual Average			0.39	MGD	271	GPM	0.60	CFS
Peak Month	Factor	1.5	0.59	MGD	406	GPM	0.91	CFS
Peak 2-Hour	Factor	4	1.56	MGD	1,083	GPM	2.42	CFS
Min. Month	Factor	0.5	0.20	MGD	135	GPM	0.30	CFS

Raw Wastewater Concentrations

	Avg.	2-Hour Peak	Peak Month	Min. Month		
BOD (total)	300	100	250	200	mg/L	Assumed
BOD (soluble)	180				mg/L	
TSS	300				mg/L	
VSS	240				mg/L	
TKN	50				mg/L	
NH3-N	40				mg/L	
TP					mg/L	

Effluent Requirements

BOD	10	mg/L
TSS	15	mg/L
NH3-N	2	mg/L
TP		mg/L
DO		mg/L

Select Treatment Processes from the List

Preliminary Treatment	Coarse Screening
Primary Treatment	None
Biological Treatment	Conventional Activated Sludge w/ Nitrification, @ Min.
Solids Treatment	Aerobic Digestion + Dewatering

ACTIVATED SLUDGE DESIGN

WASTEWATER CHARACTERISTICS		
INFLUENT MASS LOADING		
BOD5 (AVG)	975.8	lbs/day
BOD5 (2-HR PEAK)	1,301.0	lbs/day
BOD5 (PEAK MONTH)	1,219.7	lbs/day
BOD5 (MIN MONTH)	325.3	lbs/day
TSS	975.8	lbs/day
NH_3	130.1	lbs/day
TKN	162.6	lbs/day
EFFLUENT COMPOSITION (ASSUMED FOR CONSERVATIVE DESIGN)		
BOD5	10.0	mg/L
TSS	15.0	mg/L
NH_3	3.0	mg/L
TKN	0.0	mg/L

AERATION BASIN		
Conventional Activated Sludge w/ Nitrification, @ Min. Temp > 15°C		
Description	**Value**	**Unit**
AERATION BASIN CALCULATIONS - TCEQ TRADITIONAL DESIGN - TCEQ 217, SUBCHAPTER F		
Aeration Basin Maximum Organic Loading	35.0	lbs/day/1000 ft^3
Minimum Number of Basins (For Flow < 0.4 MGD)	2.0	EA
BOD Removal Credit for Preliminary and Primary Treatment (Optional)	0%	
Total Peak BOD Loading (Based on Design Flow)	976	lbs/day
Total Aeration Basin Volume Required	27,879	ft^3

AERATION BASIN SIZING		
Proposed Number of Basins	8.0	
Side Water Depth of Basins	10.3	ft
Freeboard	1.5	ft
Total Depth of Basin	12.0	ft
Diffuser Submergence	9.8	ft
Required Volume of Each Aeration Basin	3,485	ft^3
Surface Area of Each Basin	337	ft^2
Width to Length Ratio (1:X)	2.5	
Required Width of Each Basin	12.0	ft
Required Length of Each Basin	30	ft
Proposed Volume of Each Aeration Basin	3,641	ft^3
Proposed Total Aeration Basin Volume	29,131	ft^3

PHASE II - 0.39 MGD

WASTEWATER CHARACTERISTICS		
Description	**Value**	**Unit**
Influent BOD_5	300.0	mg/L
Influent TSS	300.0	mg/L
Influent NH_3	40.0	mg/L
Daily Flow (Q_{AVE})	780,000.0	gpd
Daily Flow (Q_{AVE})	541.7	gpm
Daily Flow (Q_{AVE})	1.209	cfs
2-hr Peak Flow (Q_{PK})	3,120,000	gpd
2-hr Peak Flow (Q_{PK})	2,166.7	gpm
2-hr Peak Flow (Q_{PK})	4.836	cfs
NH_3	260.8	lbs/day
BOD_5	1,956.2	lbs/day
TSS	1,956.2	lbs/day

Description
Conventional Activated Sludge w/ Nitrification, @ Min. Temp > 15°C

SECONDARY CLARIFIER		
Description	**Value**	**Unit**
Number of Clarifiers	2.0	Ea
Average Flow Per Clarifier	0.20	MGD
Peak Flow Per Clarifier	0.80	MGD
Clarifier Shape (Round, Octagonal, Square)	Round	
Design Weir Shape (Round, Segmented)	Round	
Design Number of Segments (Leave Blank If Designed Round)		

SURFACE AREA DESIGN - TCEQ 217.154 (c)(1)		
TCEQ Max Surface Loading (Q_{AVG}) TCEQ 317.4 (d)(5)	700	gal/day/ft^2
TCEQ Max Surface Loading (Q_{PK}) TCEQ 217.154 (c)(1)	1,200	gal/day/ft^2
Design Diameter	**32.0**	ft
Surface Area Required at Peak Flow Per Clarifier	666.7	ft^2
Surface Area Required for All Clarifiers at Peak Flow	1,333.3	ft^2
Proposed Surface Area Per Clarifier	804.2	ft^2
Total Proposed Surface Area for All Clarifiers	1,608.5	ft^2
Actual Design Surface Loading at Design Flow (Q_{AVE})	248.7	gal/day/ft^2
Actual Design Surface Loading at Peak Flow (Q_{PK})	994.7	gal/day/ft^2

SIDE WATER DEPTH - TCEQ 217.152 (g)		
Side Water Depth For Clarifier Surface Area Greater Than 300 sqft.	10	ft
Side Water Depth For Clarifier Surface Area Equal To Or Less Than 300 sqft.	8	ft
Controlling Minimum Depth Requirement	10.0	ft
Proposed Clarifier Side Water Depth (Not Total Depth)	**10.5**	ft
Design Floor Slope (1:X)	12.0	
Design Cone Depth (Including 1:12, sloped bottom)	1.3	ft
Free Board (Minimum 1 feet)	1.0	ft
Total Depth of Clarifier	12.863	ft
Design Total Depth of Clarifier	**12.0**	ft
HYDRAULIC DETENTION TIME - TCEQ 217.154 (c)(1)		
TCEQ Min Detention Time (Q_{AVE})	2.6	hours
TCEQ Min Detention Time (Q_{PK})	1.8	hours
Flow per Clarifier for Hydraulic Detention Time @ Design Flow (w/ Recycle)	0.20	MGD
Flow per Clarifier for Hydraulic Detention Time @ Peak Flow (w/ Recycle)	0.80	MGD
Required Treatment Volume At Design Flow for Each Clarifier	2,896.6	ft^3
Required Treatment Volume At Peak Flow for Each Clarifier	8,021.4	ft^3
Proposed Treatment Volume for Each Clarifier	8,468.7	ft^3
Actual Hydraulic Detention Time at Design Flow	7.6	hours
Actual Hydraulic Detention Time at Peak Flow	1.9	hours
SIDE WATER DEPTH - TCEQ 217.152 (g)		

PHASE II - 0.39 MGD

WASTEWATER CHARACTERISTICS		
Description	**Value**	**Unit**
Side Water Depth For Clarifier Surface Area Greater Than 300 sqft.	10	ft
Side Water Depth For Clarifier Surface Area Equal To Or Less Than 300 sqft.	8	ft
Controlling Minimum Depth Requirement	10.0	ft
Proposed Clarifier Side Water Depth (Not Total Depth)	**10.5**	ft
Design Floor Slope (1:X)	12.0	
Design Overall Depth (Including 1:12, sloped bottom)	11.8	ft

HYDRAULIC DETENTION TIME - TCEQ 217.154 (c)(1)		
TCEQ Min Detention Time (Q_{AVE})	2.6	hours
TCEQ Min Detention Time (Q_{PK})	1.8	hours
Flow per Clarifier for Hydraulic Detention Time @ Design Flow (w/ Recycle)	0.36	MGD
Flow per Clarifier for Hydraulic Detention Time @ Peak Flow (w/ Recycle)	1.12	MGD
Required Treatment Volume At Design Flow for Each Clarifier	5,226.2	ft^3
Required Treatment Volume At Peak Flow for Each Clarifier	11,247.0	ft^3
Proposed Treatment Volume for Each Clarifier	8,444.6	ft^3
Actual Hydraulic Detention Time at Design Flow	4.2	hours
Actual Hydraulic Detention Time at Peak Flow	1.4	hours

SOLIDS LOADING RATE - TCEQ 317.4 (d)(5)		
Totals Solids to Clarifier	20,016.0	lbs/day
Proposed Surface Area of Clarifier	804.2	ft^2
Loading Rate of Solids to Clarifier	24.9	$lbs/day/ft^2$
TCEQ Maximum Loading Rate	50.0	$lbs/day/ft^2$

EFFLUENT WEIR DESIGN - TCEQ 217.152 (d)		
Weir loading (For Plants with Design Flows 1.0 MGD or less)	20,000	gal/day/ft
Weir loading (For Plants with Design Flows Over 1.0 MGD)	30,000	gal/day/ft
Controlling Weir Loading Criteria	20,000.0	gal/day/ft
Total Length of Weir Required Per Clarifier @ Peak Flow	40.0	ft
Total Length of Weir Required For All Clarifiers @ Peak Flow	80.0	ft
Proposed Weir Distance from Wall	1.0	ft
Diameter of Effluent Weir	30.0	ft
Design Weir Length Per Clarifier	94.2	ft
Total Design Weir Length	188.5	ft
Actual Surface Area Loading @ Peak Flow	8,488.3	$gal/day/ft^2$
Actual Surface Area Loading @ Average Flow	2,122.1	$gal/day/ft^2$

TORQUE RATINGS OF DRIVES AND RAKES		
Resistive Force of Secondary Sludge (W)	6.0	lb/ft
Running Torque (Wr^2)	1,536.0	ft-lbs

RETURN ACTIVATED SLUDGE FLOW RATES - TCEQ 217.152 (j)		
Lower Limit Underflow Rate - TCEQ 217.152(j)	200	gpd/ft^2
Minimum RAS Flow Rate (per clarifier)	111.7	gpm
Upper Limit Underflow Rate - TCEQ 217.152(j)	400	gpd/ft^2
Maximum RAS Flow Rate (per clarifier)	223.4	gpm
Combined Upper Limit RAS Underflow Rate for Plant	446.8	gpm

STILLING WELL DESIGN		
Maximum Stilling Well Velocity (@ Peak Flow) TCEQ 217.152 (a)(4)	0.15	ft/sec
Peak Flow For Individual Clarifier	0.80	MGD
Total Area Required	8.3	ft^2
Diameter of Each Stilling Well	6.0	ft
Area of Each Stilling Well	28.3	ft^2

TCEQ DESIGN CRITERIA (CHAPTER 317.5 (B))		
Minimum Detention Time	15.0	days
Volume Requirement	20.0	ft^3/lb BOD_5/day
Aeration Requirement	30.0	scfm/1000 ft^3
If Mechanical Aeration is Used	1.5	HP/1000 ft^3
TCEQ DESIGN CRITERIA (CHAPTER 217, SUBCHAPTER J)		
Minimum Temperature	15.0	deg C
Required Minimum Detention Time	60.0	days
Minimum Volatile Solids Loading Rate	100.0	lb/1000 ft^3/day
Maximum Volatile Solids Loading Rate	200.0	lb/1000 ft^3/day
Aeration Requirement	20.0	SCFM/1000 ft^3
NOTE: Aerobic digester has to be sized for average day flow		
Biodegradable Volatile Solids in WAS	0.7	lb VS/BOD removed
Destruction	0.3	lb VS/BOD removed
Note: Typical minimum Solids Retention Time (SRT) maintained in WWTPs is 8 days. Secondary		
Influent Solids	976	lbs/day
Digested Solids Production	771	lbs/day
Average Digested Solids Production	873	lbs/day
Total Sludge Production, lbs/day	873	lbs/day
Assumed Average Dig. Conc., mg/l	15,000.0	mg/l
Total Sludge to Aerobic Digester	6,981.00	gal/d
Volume Required Based on Min. Detention Time @ 60 Days	55,997.33	ft^3
Volume Required Based on Min. Detention Time @ 15 Days	13,999.33	ft^3
CHECK IF CHAPTER 217 VOLATILE SOLIDS LOADING RATE REQUIREMENTS CAN BE MET		
Volatile Suspended Solids Loading	683	lbs/day
Volatile Solids Loading Rate for 60 Days Storage Volume	0.00073	lb/1000 ft^3
Volatile Solids Loading Rate	**ERROR!**	
Note: It is not possible to meet both the min. required detention time and min. required VS solids loading rate requirements without significant thickening before the sludge is stabilized in the digester. Hence, it is prudent to just meet the required min. detention time alone. Also, if the sludge is to be disposed of in a landfill, sludge stabilization will not be required and a full detention time is not necessary. When a full dettention time is not provided, the basin will not be a true aerobic digester; instead, it will be reconfigured as a sludge holding tank.		
SLUDGE HOLDING TANK DESIGN		
Number of Basins	8.0	Ea
Freeboard	1.5	ft
Side Water Depth	10.5	ft
Total Required Depth	12.0	ft
Actual Tank Depth	12.0	ft
Width	12.0	ft
Length	22.0	ft
Design Volume	22,176	ft^3
DESIGN CHECK		
Detention Time	23.76	days
Design Volume to Loading Ratio	22.73	ft^3/lb BOD_5/day

WASTEWATER CHARACTERISTICS		
Design Flow Rate (Average Daily Flow)	0.39	MGD
Design Flow Rate (2-Hour Peak Flow)	1.56	MGD

CHLORINE CONTACT CHAMBER		
Description	**Value**	**Unit**
TCEQ Min Detention Time (Q_{PK}) (TCEQ217.281(b)(1)	20.0	min
TCEQ Required Minimum Volume	2,896.6	ft^3
TCEQ Required Minimum Volume	21,666.7	gal

Chlorine Contact Basin Sizing (Excluding Chlorine Mixing Chamber)		
Design Number of Trains	2.0	
Design Side Water Depth at Peak Flow	9.5	ft
Design Width of Basin	12.0	ft
Design Channel Width	2.0	ft
Design Channel Length (Assumes 40:1 L:W ratio per TCEQ 217.281(a)(2))	80.0	ft
Number of Partition	8.0	ea
DESIGN LENGTH OF BASIN	18.0	ft
PROPOSED VOLUME	3,040.0	ft^3
ACTUAL CCB VOLUME	4,104.0	ft^3
Actual Detention Time at Peak Flow	28.3	min
ACTUAL CHANNEL LENGTH	108.0	ft

PHASE III - 0.60 MGD

PROJECT NAME: Cedar Creek 291 WWTP PH III
CLIENT: South Central Wastewater
PROJECT NUMBER: 40003-015
DATE: 10/9/2024
BY: AA
QC:

WASTEWATER AND PLANT CHARACTERIZATION

PHASE III

Flow Rates

Annual Average			0.60	MGD	417	GPM	0.93 CFS
Peak Month	Factor	1.5	0.90	MGD	625	GPM	1.40 CFS
Peak 2-Hour	Factor	4	2.40	MGD	1,667	GPM	3.72 CFS
Min. Month	Factor	0.5	0.30	MGD	208	GPM	0.47 CFS

Raw Wastewater Concentrations

	Avg.	2-Hour Peak	Peak Month	Min. Month		
BOD (total)	300	100	250	200	mg/L	Assumed
BOD (soluble)	180				mg/L	
TSS	300				mg/L	
VSS	240				mg/L	
TKN	50				mg/L	
NH3-N	40				mg/L	
TP					mg/L	

Effluent Requirements

BOD	10	mg/L
TSS	15	mg/L
NH3-N	2	mg/L
TP		mg/L
DO		mg/L

Select Treatment Processes from the List

Preliminary Treatment	Coarse Screening
Primary Treatment	None
Biological Treatment	Conventional Activated Sludge w/ Nitrification, @ Min.
Solids Treatment	Aerobic Digestion + Dewatering

ACTIVATED SLUDGE DESIGN

WASTEWATER CHARACTERISTICS

INFLUENT MASS LOADING		
BOD5 (AVG)	1,501.2	lbs/day
BOD5 (2-HR PEAK)	2,001.6	lbs/day
BOD5 (PEAK MONTH)	1,876.5	lbs/day
BOD5 (MIN MONTH)	500.4	lbs/day
TSS	1,501.2	lbs/day
NH_3	200.2	lbs/day
TKN	250.2	lbs/day
EFFLUENT COMPOSITION (ASSUMED FOR CONSERVATIVE DESIGN)		
BOD5	10.0	mg/L
TSS	15.0	mg/L
NH_3	3.0	mg/L
TKN	0.0	mg/L

AERATION BASIN

Conventional Activated Sludge w/ Nitrification, @ Min. Temp > 15°C		
Description	**Value**	**Unit**
AERATION BASIN CALCULATIONS - TCEQ TRADITIONAL DESIGN - TCEQ 217, SUBCHAPTER F		
Aeration Basin Maximum Organic Loading	35.0	lbs/day/1000 ft^3
Minimum Number of Basins (For Flow < 0.4 MGD)	2.0	EA
BOD Removal Credit for Preliminary and Primary Treatment (Optional)	0%	
Total Peak BOD Loading (Based on Design Flow)	1,501	lbs/day
Total Aeration Basin Volume Required	42,891	ft^3

AERATION BASIN SIZING		
Proposed Number of Basins	12.0	
Side Water Depth of Basins	10.3	ft
Freeboard	1.5	ft
Total Depth of Basin	12.0	ft
Diffuser Submergence	9.8	ft
Required Volume of Each Aeration Basin	3,574	ft^3
Surface Area of Each Basin	346	ft^2
Width to Length Ratio (1:X)	2.5	
Required Width of Each Basin	12.0	ft
Required Length of Each Basin	30	ft
Proposed Volume of Each Aeration Basin	3,641	ft^3
Proposed Total Aeration Basin Volume	43,696	ft^3

PHASE III- 0.60 MGD

WASTEWATER CHARACTERISTICS		
Description	**Value**	**Unit**
Influent BOD_5	300.0	mg/L
Influent TSS	300.0	mg/L
Influent NH_3	40.0	mg/L
Daily Flow (Q_{AVE})	1,200,000.0	gpd
Daily Flow (Q_{AVE})	833.3	gpm
Daily Flow (Q_{AVE})	1.860	cfs
2-hr Peak Flow (Q_{PK})	4,800,000	gpd
2-hr Peak Flow (Q_{PK})	3,333.3	gpm
2-hr Peak Flow (Q_{PK})	7.440	cfs
NH_3	401.3	lbs/day
BOD_5	3,009.6	lbs/day
TSS	3,009.6	lbs/day

Description
Conventional Activated Sludge w/ Nitrification, @ Min. Temp > 15°C

SECONDARY CLARIFIER		
Description	**Value**	**Unit**
Number of Clarifiers	3.0	Ea
Average Flow Per Clarifier	0.20	MGD
Peak Flow Per Clarifier	0.80	MGD
Clarifier Shape (Round, Octagonal, Square)	Round	
Design Weir Shape (Round, Segmented)	Round	
Design Number of Segments (Leave Blank If Designed Round)		

SURFACE AREA DESIGN - TCEQ 217.154 (c)(1)		
TCEQ Max Surface Loading (Q_{AVG}) TCEQ 317.4 (d)(5)	700	gal/day/ft^2
TCEQ Max Surface Loading (Q_{PK}) TCEQ 217.154 (c)(1)	1,200	gal/day/ft^2
Design Diameter	**32.0**	ft
Surface Area Required at Peak Flow Per Clarifier	666.7	ft^2
Surface Area Required for All Clarifiers at Peak Flow	2,000.0	ft^2
Proposed Surface Area Per Clarifier	804.2	ft^2
Total Proposed Surface Area for All Clarifiers	2,412.7	ft^2
Actual Design Surface Loading at Design Flow (Q_{AVE})	248.7	gal/day/ft^2
Actual Design Surface Loading at Peak Flow (Q_{PK})	994.7	gal/day/ft^2

SIDE WATER DEPTH - TCEQ 217.152 (g)		
Side Water Depth For Clarifier Surface Area Greater Than 300 sqft.	10	ft
Side Water Depth For Clarifier Surface Area Equal To Or Less Than 300 sqft.	8	ft
Controlling Minimum Depth Requirement	10.0	ft
Proposed Clarifier Side Water Depth (Not Total Depth)	**10.5**	ft
Design Floor Slope (1:X)	12.0	
Design Cone Depth (Including 1:12, sloped bottom)	1.3	ft
Free Board (Minimum 1 feet)	1.0	ft
Total Depth of Clarifier	12.863	ft
Design Total Depth of Clarifier	**12.0**	ft
HYDRAULIC DETENTION TIME - TCEQ 217.154 (c)(1)		
TCEQ Min Detention Time (Q_{AVE})	2.6	hours
TCEQ Min Detention Time (Q_{PK})	1.8	hours
Flow per Clarifier for Hydraulic Detention Time @ Design Flow (w/ Recycle)	0.20	MGD
Flow per Clarifier for Hydraulic Detention Time @ Peak Flow (w/ Recycle)	0.80	MGD
Required Treatment Volume At Design Flow for Each Clarifier	2,896.6	ft^3
Required Treatment Volume At Peak Flow for Each Clarifier	8,021.4	ft^3
Proposed Treatment Volume for Each Clarifier	8,468.7	ft^3
Actual Hydraulic Detention Time at Design Flow	7.6	hours
Actual Hydraulic Detention Time at Peak Flow	1.9	hours
SIDE WATER DEPTH - TCEQ 217.152 (g)		

PHASE III- 0.60 MGD

WASTEWATER CHARACTERISTICS		
Description	**Value**	**Unit**
Side Water Depth For Clarifier Surface Area Greater Than 300 sqft.	10	ft
Side Water Depth For Clarifier Surface Area Equal To Or Less Than 300 sqft.	8	ft
Controlling Minimum Depth Requirement	10.0	ft
Proposed Clarifier Side Water Depth (Not Total Depth)	**10.5**	ft
Design Floor Slope (1:X)	12.0	
Design Overall Depth (Including 1:12, sloped bottom)	11.8	ft

HYDRAULIC DETENTION TIME - TCEQ 217.154 (c)(1)		
TCEQ Min Detention Time (Q_{AVE})	2.6	hours
TCEQ Min Detention Time (Q_{PK})	1.8	hours
Flow per Clarifier for Hydraulic Detention Time @ Design Flow (w/ Recycle)	0.20	MGD
Flow per Clarifier for Hydraulic Detention Time @ Peak Flow (w/ Recycle)	0.80	MGD
Required Treatment Volume At Design Flow for Each Clarifier	2,896.6	ft^3
Required Treatment Volume At Peak Flow for Each Clarifier	8,021.4	ft^3
Proposed Treatment Volume for Each Clarifier	8,444.6	ft^3
Actual Hydraulic Detention Time at Design Flow	7.6	hours
Actual Hydraulic Detention Time at Peak Flow	1.9	hours

SOLIDS LOADING RATE - TCEQ 317.4 (d)(5)		
Totals Solids to Clarifier	20,016.0	lbs/day
Proposed Surface Area of Clarifier	804.2	ft^2
Loading Rate of Solids to Clarifier	24.9	$lbs/day/ft^2$
TCEQ Maximum Loading Rate	50.0	$lbs/day/ft^2$

EFFLUENT WEIR DESIGN - TCEQ 217.152 (d)		
Weir loading (For Plants with Design Flows 1.0 MGD or less)	20,000	gal/day/ft
Weir loading (For Plants with Design Flows Over 1.0 MGD)	30,000	gal/day/ft
Controlling Weir Loading Criteria	20,000.0	gal/day/ft
Total Length of Weir Required Per Clarifier @ Peak Flow	40.0	ft
Total Length of Weir Required For All Clarifiers @ Peak Flow	120.0	ft
Proposed Weir Distance from Wall	1.0	ft
Diameter of Effluent Weir	30.0	ft
Design Weir Length Per Clarifier	94.2	ft
Total Design Weir Length	282.7	ft
Actual Surface Area Loading @ Peak Flow	8,488.3	$gal/day/ft^2$
Actual Surface Area Loading @ Average Flow	2,122.1	$gal/day/ft^2$

TORQUE RATINGS OF DRIVES AND RAKES		
Resistive Force of Secondary Sludge (W)	6.0	lb/ft
Running Torque (Wr^2)	1,536.0	ft-lbs

RETURN ACTIVATED SLUDGE FLOW RATES - TCEQ 217.152 (j)		
Lower Limit Underflow Rate - TCEQ 217.152(j)	200	gpd/ft^2
Minimum RAS Flow Rate (per clarifier)	111.7	gpm
Upper Limit Underflow Rate - TCEQ 217.152(j)	400	gpd/ft^2
Maximum RAS Flow Rate (per clarifier)	223.4	gpm
Combined Upper Limit RAS Underflow Rate for Plant	670.2	gpm

STILLING WELL DESIGN		
Maximum Stilling Well Velocity (@ Peak Flow) TCEQ 217.152 (a)(4)	0.15	ft/sec
Peak Flow For Individual Clarifier	0.80	MGD
Total Area Required	8.3	ft^2
Diameter of Each Stilling Well	6.0	ft
Area of Each Stilling Well	28.3	ft^2

TCEQ DESIGN CRITERIA (CHAPTER 317.5 (B))		
Minimum Detention Time	15.0	days
Volume Requirement	20.0	ft^3/lb BOD_5/day
Aeration Requirement	30.0	scfm/1000 ft^3
If Mechanical Aeration is Used	1.5	HP/1000 ft^3
TCEQ DESIGN CRITERIA (CHAPTER 217, SUBCHAPTER J)		
Minimum Temperature	15.0	deg C
Required Minimum Detention Time	60.0	days
Minimum Volatile Solids Loading Rate	100.0	lb/1000 ft^3/day
Maximum Volatile Solids Loading Rate	200.0	lb/1000 ft^3/day
Aeration Requirement	20.0	SCFM/1000 ft^3
NOTE: Aerobic digester has to be sized for average day flow		
Biodegradable Volatile Solids in WAS	0.7	lb VS/BOD removed
Destruction	0.3	lb VS/BOD removed
Note: Typical minimum Solids Retention Time (SRT) maintained in WWTPs is 8 days. Secondary		
Influent Solids	1,501	lbs/day
Digested Solids Production	1,186	lbs/day
Average Digested Solids Production	1,344	lbs/day
Total Sludge Production, lbs/day	1,344	lbs/day
Assumed Average Dig. Conc., mg/l	15,000.0	mg/l
Total Sludge to Aerobic Digester	10,740.00	gal/d
Volume Required Based on Min. Detention Time @ 60 Days	86,149.73	ft^3
Volume Required Based on Min. Detention Time @ 15 Days	21,537.43	ft^3
CHECK IF CHAPTER 217 VOLATILE SOLIDS LOADING RATE REQUIREMENTS CAN BE MET		
Volatile Suspended Solids Loading	1,051	lbs/day
Volatile Solids Loading Rate for 60 Days Storage Volume	0.00073	lb/1000 ft^3
Volatile Solids Loading Rate	**ERROR!**	
Note: It is not possible to meet both the min. required detention time and min. required VS solids loading rate requirements without significant thickening before the sludge is stabilized in the digester. Hence, it is prudent to just meet the required min. detention time alone. Also, if the sludge is to be disposed of in a landfill, sludge stabilization will not be required and a full detention time is not necessary. When a full dettention time is not provided, the basin will not be a true aerobic digester; instead, it will be reconfigured as a sludge holding tank.		
SLUDGE HOLDING TANK DESIGN		
Number of Basins	12.0	Ea
Freeboard	1.5	ft
Side Water Depth	10.5	ft
Total Required Depth	12.0	ft
Actual Tank Depth	12.0	ft
Width	12.0	ft
Length	22.0	ft
Design Volume	33,264	ft^3
DESIGN CHECK		
Detention Time	23.17	days
Design Volume to Loading Ratio	22.16	ft^3/lb BOD_5/day

WASTEWATER CHARACTERISTICS		
Design Flow Rate (Average Daily Flow)	0.60	MGD
Design Flow Rate (2-Hour Peak Flow)	2.40	MGD

CHLORINE CONTACT CHAMBER		
Description	**Value**	**Unit**
TCEQ Min Detention Time (Q_{PK}) (TCEQ217.281(b)(1)	20.0	min
TCEQ Required Minimum Volume	4,456.3	ft^3
TCEQ Required Minimum Volume	33,333.3	gal

Chlorine Contact Basin Sizing (Excluding Chlorine Mixing Chamber)		
Design Number of Trains	3.0	
Design Side Water Depth at Peak Flow	9.5	ft
Design Width of Basin	12.0	ft
Design Channel Width	2.0	ft
Design Channel Length (Assumes 40:1 L:W ratio per TCEQ 217.281(a)(2))	80.0	ft
Number of Partition	8.0	ea
DESIGN LENGTH OF BASIN	18.0	ft
PROPOSED VOLUME	4,560.0	ft^3
ACTUAL CCB VOLUME	6,156.0	ft^3
Actual Detention Time at Peak Flow	27.6	min
ACTUAL CHANNEL LENGTH	108.0	ft

Appendix O

Wind Rose

cli-MATE
MRCC APPLICATION TOOLS ENVIRONMENT

Hi Audrey!
Log out

MRCC Midwestern Regional Climate Center

Privacy Policy

Data Selector

See Data Values

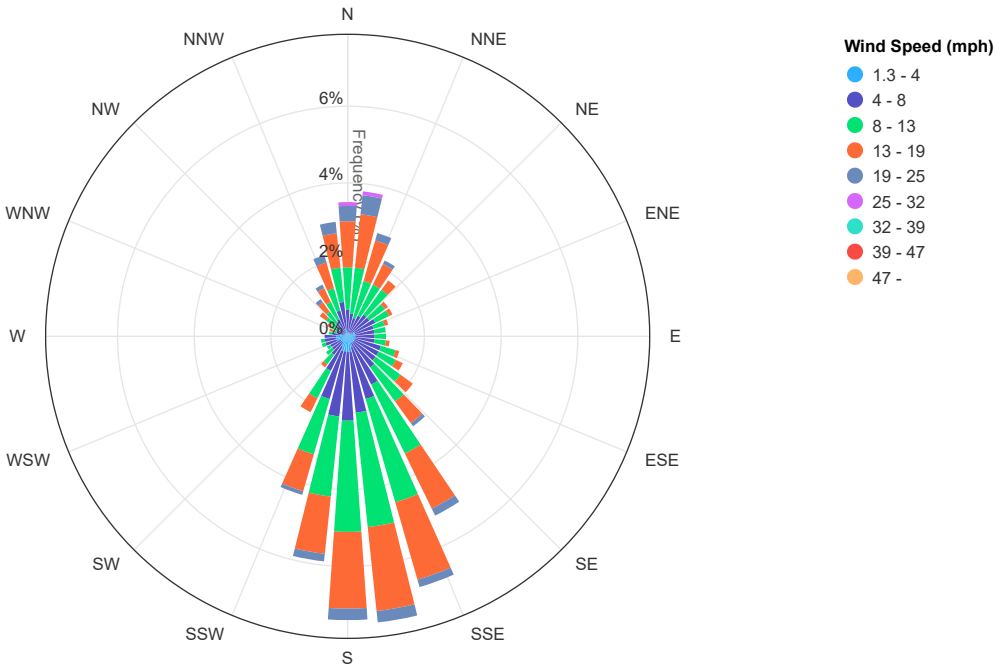
Data CSV Version

Product Description

Send Feedback

AUSTIN BERGSTROM INTL AP (TX) Wind Rose

October 01, 1942 - October 09, 2024
Sub-Interval: January 1 - December 31, 0 - 24



Click and drag to zoom

AUSTIN BERGSTROM INTL AP (TX)- Wind Frequency Table (percentage)

Latitude : 30.1831
Longitude : -97.6799
Elevation : 481 ft.
Element : Mean Wind Speed

Start Date : October 01, 1942
End Date : October 09, 2024
# of Days : 29960 of 29960
obs : poss : 236567 of 719040

Sub Interval Windows	Start	End
Date	January 1	December 31
Hour	0	24

(Greater than or equal to initial interval value and Less than ending interval value.)

Range (mph)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	27
1.3 - 4	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0
4 - 8	0.6	0.5	0.4	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.8	1.2	1.4	1.6	1.8	1.7	1.3	0.7	0.4	0.3	0.3	0.3	0.3	0
8 - 13	1.1	1.2	1.0	0.9	0.8	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.8	1.1	2.0	2.8	3.0	2.9	2.1	1.5	0.8	0.3	0.2	0.1	0.1	0.1	0
13 - 19	1.2	1.4	1.1	0.6	0.3	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.4	0.7	1.6	2.1	2.2	2.0	1.5	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0
19 - 25	0.4	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0
25 - 32	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
32 - 39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
39 - 47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
47 -	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Total	3.4	3.8	2.8	2.3	1.9	1.4	1.2	1.1	0.9	1.0	1.1	1.3	1.6	2.1	2.8	5.3	6.7	7.4	7.5	5.8	4.3	2.3	1.1	0.7	0.6	0.7	0.6	0
Calm (<1.3)																												
Ave Speed	12.2	13.0	12.1	10.5	9.1	7.8	7.3	7.1	6.9	6.8	6.8	7.0	7.7	8.7	10.0	10.7	10.6	10.6	10.2	9.7	9.4	8.7	7.2	6.2	5.6	5.1	5.0	5

This tool uses standard hourly observations based on raw (non-quality controlled) decoded metar data from the ACIS-hourly database. Sub-hourly data (one-minute data, five-minute data, and special observations) are not included but are available from NCEI.
Midwestern Regional Climate Center cli-MATE: MRCC Application Tools Environment Generated at: 10/9/2024 2:07:14 PM EDT

Appendix P

Solids Management Plan

WGA

SLUDGE MANAGEMENT PLAN PH I - 0.1 MGD

I.PARAMETERS

% CAPACITIES	100%	75%	50%	25%
AVG. FLOW (MGD)	0.1	0.075	0.0375	0.009375

CBOD5 REMOVAL		
Influent Concentration	300	mg/l
Effluent Concentration	0	mg/l
Net Removal	300	mg/l

DIGESTER VOLUME		
	Vol. (cu. ft.)	Vol. (Gal)
Digester No. 1	2,772	20,735
Digester No. 2	2,772	20,735
Total	**5,544**	**41,469**

II. DAILY SLUDGE PRODUCTIONS

CAPACITY	100%	75%	50%	25%
BOD REMOVED (LBS)	250	188	125	63
DRY SLUDGE PRODUCED[(1)] (LBS)	79	59	39	20
WET SLUDGE PRODUCED[(2)](LBS)	3,941	2,955	1,970	985
VOL WET SLUDGE PRODUCED (GPD)	473	354	236	118
REMOVAL SCHEDULE (DAYS)	87	117	175	351

(1) Assuming 0.315 lbs of dry sludge produced per pound of BOD5 removed
(2) Assuming 2% Solids

Sludge will be removed from digester when digester is full of thickened solids. Sludge will be removed by a registered transporter and hauled to a permitted disposal site.

At 100% Capacity, sludge shall be removed from basins every 87 days

WGA

SLUDGE MANAGEMENT PLAN PH II - 0.39 MGD

I.PARAMETERS

% CAPACITIES	100%	75%	50%	25%
AVG. FLOW (MGD)	0.3	0.225	0.1125	0.028125

CBOD5 REMOVAL		
Influent Concentration	300	mg/l
Effluent Concentration	0	mg/l
Net Removal	300	mg/l

DIGESTER VOLUME		
	Vol. (cu. ft.)	Vol. (Gal)
Digester No. 1	2,772	20,735
Digester No. 2	2,772	20,735
Digester No. 3	2,772	20,735
Digester No. 4	2,772	20,735
Digester No. 5	2,772	20,735
Digester No. 6	2,772	20,735
Digester No. 7	2,772	20,735
Digester No. 8	2,772	20,735
Total	**11,088**	**82,938**

II. DAILY SLUDGE PRODUCTIONS

CAPACITY	100%	75%	50%	25%
BOD REMOVED (LBS)	751	563	375	188
DRY SLUDGE PRODUCED[(1)] (LBS)	236	177	118	59
WET SLUDGE PRODUCED[(2)](LBS)	11,822	8,866	5,911	2,955
VOL WET SLUDGE PRODUCED (GPD)	1418	1063	709	354
REMOVAL SCHEDULE (DAYS)	58	78	117	234

(1) Assuming 0.315 lbs of dry sludge produced per pound of BOD5 removed

(2) Assuming 2% Solids

Sludge will be removed from digester when digester is full of thickened solids. Sludge will be removed by a registered transporter and hauled to a permitted disposal site.

At 100% Capacity, sludge shall be removed from basins every 58 days

SLUDGE MANAGEMENT PLAN FINAL PH - 0.6 MGD

I.PARAMETERS

% CAPACITIES	100%	75%	50%	25%
AVG. FLOW (MGD)	0.6	0.45	0.225	0.05625

CBOD5 REMOVAL		
Influent Concentration	300	mg/l
Effluent Concentration	0	mg/l
Net Removal	300	mg/l

DIGESTER VOLUME			
	Quantity	Vol. per Basin (cu. ft.)	Vol. per Basin(Gal)
Digester Basins	12	2,772	20,735
	Total	**33,264**	**248,815**

II. DAILY SLUDGE PRODUCTIONS

CAPACITY	100%	75%	50%	25%
BOD REMOVED (LBS)	1501	1126	751	375
DRY SLUDGE PRODUCED[(1)] (LBS)	473	355	236	118
WET SLUDGE PRODUCED[(2)](LBS)	23,644	17,733	11,822	5,911
VOL WET SLUDGE PRODUCED (GPD)	2835	2126	1418	709
REMOVAL SCHEDULE (DAYS)	**87**	117	175	351

(1) Assuming 0.315 lbs of dry sludge produced per pound of BOD5 removed
(2) Assuming 2% Solids

Sludge will be removed from digester when digester is full of thickened solids. Sludge will be removed by a registered transporter and hauled to a permitted disposal site.

At 100% Capacity, sludge shall be removed from basins every 87 days

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. Applicants may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 TAC Section 39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS DOMESTIC WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

South Central Water Company (CN602602179) proposes to operate Cedar Creek 291 Wastewater Treatment Plant (RN_____), an domestic wastewater treatment plant. The facility will be located at approximately 5.75 miles southeast of the intersection of State Highway 21 West and Farm to Market Road 812, in Cedar Creek, Bastrop County, Texas 78612. This permit is to authorize the discharge of treated domestic wastewater to a volume not to exceed an average flow of 600,000 gallons per day.

Discharges from the facility are expected to contain free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, pH differences, and temperature differences. Domestic wastewater will be treated by an activated sludge processing plant consisting of the following treatment units: bar screens, aeration basins, digester basins, clarifiers, a lift station, and chlorine contact basins.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

AGUAS RESIDUALES DOMÉSTICAS /AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación ejecutiva fedérale de la solicitud de permiso.

South Central Water Company (CN602602179) propone operar Planta de tratamiento de aguas residuales Cedar Creek 291 (RN_____), una planta de tratamiento de aguas residuales domésticas. La instalación está ubicada en aproximadamente 5.75 millas al sureste de la intersección de la carretera estatal 21 oeste y la carretera 812 de la granja al mercado, en Cedar Creek, Condado de Bastrop, Texas 78612. Las aguas residuales domésticas serán tratadas por una planta de procesamiento de lodos activados que consta de las siguientes unidades de tratamiento: pantallas de barra, cuencas de aireación, cuencas digestoras, clarificadores, una estación de bombeo y cuencas de contacto con cloro.

Se espera que las descargas de la instalación contengan cloro libre disponible, cloro residual total, sólidos suspendidos totales, aceite y grasa, hierro total, diferencias de pH y diferencias de temperatura. Aguas residuales domésticas. están tratado por una planta de procesamiento de lodos activados que consta de las siguientes unidades de tratamiento: pantallas de barras, cuencas de aireación, cuencas de digestores, clarificadores, una estación de bombeo y cuencas de contacto con cloro.

INSTRUCTIONS

1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
3. Choose “operates” in this section for existing facility applications or choose “proposes to operate” for new facility applications.
4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
6. Choose the appropriate article (a or an) to complete the sentence.
7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
8. Choose “is” for an existing facility or “will be” for a new facility.
9. Enter the location of the facility in this section.
10. Enter the City nearest the facility in this section.
11. Enter the County nearest the facility in this section.
12. Enter the zip code for the facility address in this section.
13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, or major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
15. Enter the discharge types from your facility in this section (e.g., stormwater, process wastewater, once through cooling water, etc.)
16. Choose the appropriate verb tense to complete the sentence.
17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Questions or comments concerning this form may be directed to the Water Quality Division’s Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

Example

Individual Industrial Wastewater Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

ABC Corporation (CN600000000) operates the Starr Power Station (RN10000000000), a two-unit gas-fired electric generating facility. Unit 1 has a generating capacity of 393 megawatts (MWs) and Unit 2 has a generating capacity of 528 MWs. The facility is located at 1356 Starr Street, near the City of Austin, Travis County, Texas 78753.

This application is for a renewal to discharge 870,000,000 gallons per day of once through cooling water, auxiliary cooling water, and also authorizes the following waste streams monitored inside the facility (internal outfalls) before it is mixed with the other wastewaters authorized for discharge via main Outfall 001, referred to as “previously monitored effluents” (low-volume wastewater, metal-cleaning waste, and stormwater (from diked oil storage area yards and storm drains)) via Outfall 001. Low-volume waste sources, metal-cleaning waste, and stormwater drains on a continuous and flow-variable basis via internal Outfall 101.

The discharge of once through cooling water via Outfall 001 and low-volume waste and metal-cleaning waste via Outfall 101 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 423. The pollutants expected from these discharges based on 40 CFR Part 423 are: free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, total copper, and pH. Temperature is also expected from these discharges. Additional potential pollutants are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0.

Cooling water and boiler make-up water are supplied by Lake Starr Reservoir. The City of Austin municipal water plant (CN600000000, PWS 00000) supplies the facility’s potable water and serves as an alternate source of boiler make-up water. Water from the Lake Starr Reservoir is withdrawn at the intake structure and treated with sodium hypochlorite to prevent biofouling and sodium bromide as a chlorine enhancer to improve efficacy and then passed through condensers and auxiliary equipment on a once-through basis to cool equipment and condense exhaust steam.

Low-volume wastewater from blowdown of boiler Units 1 and 2 and metal-cleaning wastes receive no treatment prior to discharge via Outfall 101. Plant floor and equipment drains and stormwater runoff from diked oil storage areas, yards, and storm drains are routed through an oil and water separator prior to discharge via Outfall 101. Domestic wastewater, blowdown, and backwash water from the service water filter, clarifier, and sand filter are routed to the Starr Creek Domestic Sewage Treatment Plant, TPDES Permit No. WQ0010000001, for treatment and disposal. Metal-cleaning waste from equipment cleaning is generally disposed of off-site.

Thomas & Carrie Townsend
P.O. Box 22
Bastrop, TX 78602

Thomas Townsend
P.O. Box 22
Bastrop, TX 78602

Darell Keith Saegert
125 S Fitswilliams Ln
Bastrop, TX 78602

Darrell Keith Saegert
125 S Fitzwilliams Ln
Bastrop, TX 78602

James & Janet Rathmann
Rathmann Trustees
1041 FM 20
Cedar Creek, TX 78612

James & Janet Rathmann
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1041 FM 20
Cedar Creek, TX 78612

Marlene Bennight
C/O Sure Morris
2004 FM 619
Elgin, TX 78621

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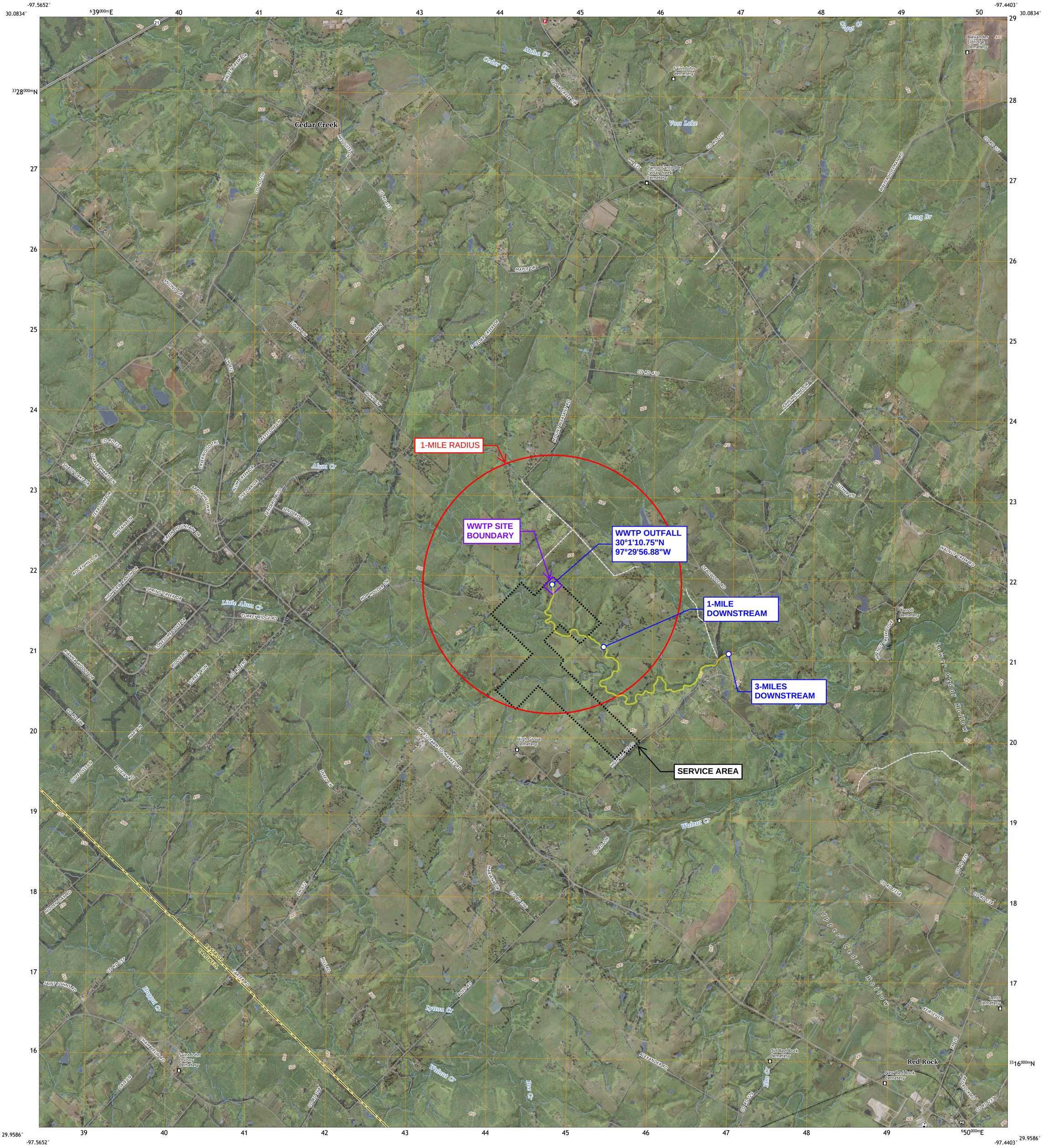
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
OnDemand Topo

7.5-MINUTE TOPO QUADRANGLE
Custom Extent
7.5-MINUTE TOPO



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

Data is provided by The National Map (TNM), is the best available at the time of map generation, and includes data content from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) Metadata for additional source data information.

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands. Temporal changes may have occurred since these data were collected and some data may no longer represent actual surface conditions.

Learn About The National Map: https://nationalmap.gov

MN
GN
3°20′
59 MILS
0°45′
13 MILS
UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
PU
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 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

TEXAS

QUADRANGLE LOCATION

ADJOINING QUADRANGLES
Lytton Springs
Bastrop SW
Dale
Red Rock

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

7.5-MINUTE TOPO, TX
2024

Rainee Trevino

From: Audrey Anderson <aanderson@wga-llp.com>
Sent: Thursday, November 14, 2024 2:44 PM
To: Rainee Trevino
Subject: RE: Application for Proposed Permit No. WQ0016655001-Notice of Deficiency Letter
Attachments: BASTROP CAD LANDOWNER DETAILS.pdf; 2024-10-22 Affected Landowner Labels.doc; WQ0016655001 - AFFECTED LANDOWNERS MAP.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Rainee,

Here is the revised map! Please let me know if you need anything else.

Audrey Anderson
Project Engineer

WGA

2500 Tanglewilde, Suite 120 | Houston, TX 77063
D: 346-771-5311 O: 713-789-1900
aanderson@wga-llp.com

Thanks,

From: Rainee Trevino <Rainee.Trevino@tceq.texas.gov>
Sent: Wednesday, November 13, 2024 1:02 PM
To: Audrey Anderson <aanderson@wga-llp.com>
Subject: RE: Application for Proposed Permit No. WQ0016655001-Notice of Deficiency Letter

Received. Thank you!

Best Regards,

Rainee Trevino
Water Quality Division | ARP Team
Texas Commission on Environmental Quality
512-239-4324

Rainee Trevino

From: Audrey Anderson <aanderson@wga-llp.com>
Sent: Wednesday, November 13, 2024 11:15 AM
To: Rainee Trevino
Subject: RE: Application for Proposed Permit No. WQ0016655001-Notice of Deficiency Letter
Attachments: 001 Admin Report 1.0 Section 1 Revisions.pdf; Appendix C - Public Involvement Plan 20960.pdf

Good Morning Rainee,

Please see the attached revised items.

Audrey Anderson
Project Engineer

2500 Tanglewilde, Suite 120 | Houston, TX 77063
D: 346-771-5311 O: 713-789-1900
aanderson@wga-llp.com

Thank you!

From: Rainee Trevino <Rainee.Trevino@tceq.texas.gov>
Sent: Wednesday, November 13, 2024 11:13 AM
To: Audrey Anderson <aanderson@wga-llp.com>
Subject: RE: Application for Proposed Permit No. WQ0016655001-Notice of Deficiency Letter

Good morning, Audrey,

Thank you for taking the time to speak to me earlier this morning. Below is a list of the minor items needing correction.

1. Administrative Report 1.1, Items D & E: Please provide the source of the landowners' names and mailing address on item D and answer item E.
2. Provide a corrected PIP form.

Please let me know if you have any questions.

Best Regards,

Rainee Trevino
Water Quality Division | ARP Team
Texas Commission on Environmental Quality
512-239-4324

From: Rainee Trevino <Rainee.Trevino@tceq.texas.gov>
Sent: Thursday, October 31, 2024 8:08 AM
To: Audrey Anderson <aanderson@wga-llp.com>
Cc: Jerry Ince <jince@wga-llp.com>
Subject: Application for Proposed Permit No. WQ0016655001-Notice of Deficiency Letter

Dear Ms. Anderson,

The attached Notice of Deficiency letter set on October 31, 2024, requests additional information needed to declare the application administratively complete. Please send the complete response to my attention by November 14, 2024.

Audrey Anderson
Project Engineer

WGA

2500 Tanglewilde, Suite 120 | Houston, TX 77063
D: 346-771-5311 O: 713-789-1900
aanderson@wga-llp.com

Please note there is an error on page 12 of the application. The title should be ***"Domestic Wastewater Permit Application Administrative Report 1.1"***. We are currently working on correcting this.

Thank you,

Rainee Trevino
Water Quality Division | ARP Team
Texas Commission on Environmental Quality
512-239-4324

EXTERNAL EMAIL : Do not click any links or open any attachments unless you trust the sender and know the content is safe.

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DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

A. Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:

- ☒ The applicant's property boundaries
- ☒ The facility site boundaries within the applicant's property boundaries
- ☒ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
- ☒ The property boundaries of all landowners surrounding the applicant's property (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
- ☒ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
- ☒ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
- ☐ **N/A** The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
- ☐ **N/A** The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
- ☒ The property boundaries of all landowners surrounding the effluent disposal site
- ☐ **N/A** The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
- ☐ **N/A** The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located

B. ☒ Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.

C. Indicate by a check mark in which format the landowners list is submitted:

☐ USB Drive ☒ Four sets of labels

D. Provide the source of the landowners' names and mailing addresses: **Bastrop County Appraisal District**

E. As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?

☐ Yes ☒ No

If **yes**, provide the location and foreseeable impacts and effects this application has on the land(s):

Click to enter text.

Section 2. Original Photographs (Instructions Page 38)

Provide original ground level photographs. Indicate with checkmarks that the following information is provided.

☒ At least one original photograph of the new or expanded treatment unit location

☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.

☒ At least one photograph of the existing/proposed effluent disposal site

☒ A plot plan or map showing the location and direction of each photograph

Section 3. Buffer Zone Map (Instructions Page 38)

A. Buffer zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following information. The applicant's property line and the buffer zone line may be distinguished by using dashes or symbols and appropriate labels.

- The applicant's property boundary;
- The required buffer zone; and
- Each treatment unit; and
- The distance from each treatment unit to the property boundaries.

B. Buffer zone compliance method. Indicate how the buffer zone requirements will be met. Check all that apply.

☒ Ownership

☐ Restrictive easement

☐ Nuisance odor control

☐ Variance

C. Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13(a) through (d)?

☒ Yes ☐ No

Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

☒ New Permit or Registration Application

☐ New Activity – modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

☐ Requires public notice,

☐ Considered to have significant public interest, **and**

☐ Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

If all the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2 and submit the form.

☒ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

The propose plant will not be located in any of the geographic locations above.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)

- ☐ Texas Land Application Permit (TLAP)
- ☐ State Only Concentrated Animal Feeding Operation (CAFO)
- ☐ Water Treatment Plant Residuals Disposal Permit

☐ Class B Biosolids Land Application Permit

☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water

☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water

☐ Add a New or Existing Reservoir

☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

(City)

(County)

(Census Tract)
Please indicate which of these three is the level used for gathering the following information.

☐ City ☐ County ☐ Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

(b) Per capita income for population near the specified location

(c) Percent of minority population and percent of population by race within the specified location

(d) Percent of Linguistically Isolated Households by language within the specified location

(e) Languages commonly spoken in area by percentage

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☐ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☐ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☒ Yes ☐ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☒ Yes ☐ No

(e) If a public meeting is held, will a translator be provided if requested?

☒ Yes ☐ No

(f) Hard copies of the application will be available at the following (check all that apply):

☐ TCEQ Regional Office ☐ TCEQ Central Office

☐ Public Place (specify)

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☒ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

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

The National Map
OnDemand Topo

7.5-MINUTE TOPO QUADRANGLE
Custom Extent
7.5-MINUTE TOPO

1-MILE RADIUS

WWTP SITE/APPLICANT BOUNDARY

WWTP OUTFALL
30°1'10.75"N
97°29'56.88"W

1-MILE DOWNSTREAM

3-MILES DOWNSTREAM

SERVICE AREA

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

Data is provided by The National Map (TNM), is the best available at the time of map generation, and includes data content from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) Metadata for additional source data information.

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Learn About The National Map: https://nationalmap.gov

MN
GN
0°45´ 13 MILS
3°20´ 59 MILS
UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
PU
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 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

TEXAS

QUADRANGLE LOCATION

ADJOINING QUADRANGLES
Lytton Springs
Bastrop SW
Dale
Red Rock

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

7.5-MINUTE TOPO, TX
2024

THOMAS L TOWNSEND
PO BOX 22
BASTROP TX 78602

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PO BOX 22
BASTROP TX 78602

THOMAS L TOWNSEND
PO BOX 22
BASTROP TX 78602

THOMAS L TOWNSEND
PO BOX 22
BASTROP TX 78602

THOMAS L & CARRIE R TOWNSEND
PO BOX 22
BASTOP TX 78602

THOMAS L & CARRIE R TOWNSEND
PO BOX 22
BASTOP TX 78602

THOMAS L & CARRIE R TOWNSEND
PO BOX 22
BASTOP TX 78602

THOMAS L & CARRIE R TOWNSEND
PO BOX 22
BASTOP TX 78602

DARRELL KEITH SAEGERT
125 S FITZWILLIAMS LN
BASTROP TX 78602

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125 S FITZWILLIAMS LN
BASTROP TX 78602

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125 S FITZWILLIAMS LN
BASTROP TX 78602

JAMES M & JANET M RATHMANN
TRUST 1/18/1994
1041 FM 20
CEDAR CREEK TX 78612

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1041 FM 20
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TRUST 1/18/1994
1041 FM 20
CEDAR CREEK TX 78612

MARLENE BENNIGHT
C/O SUE MORRIS
2004 FM 619
ELGIN TX 78621

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C/O SUE MORRIS
2004 FM 619
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TRUST 1/18/1994
1041 FM 20
CEDAR CREEK TX 78612

BASTROP CEDAR LLC
1000 RIDGE HOLLOW TRAIL
IRVING TX 75063

BASTROP CEDAR LLC
1000 RIDGE HOLLOW TRAIL
IRVING TX 75063

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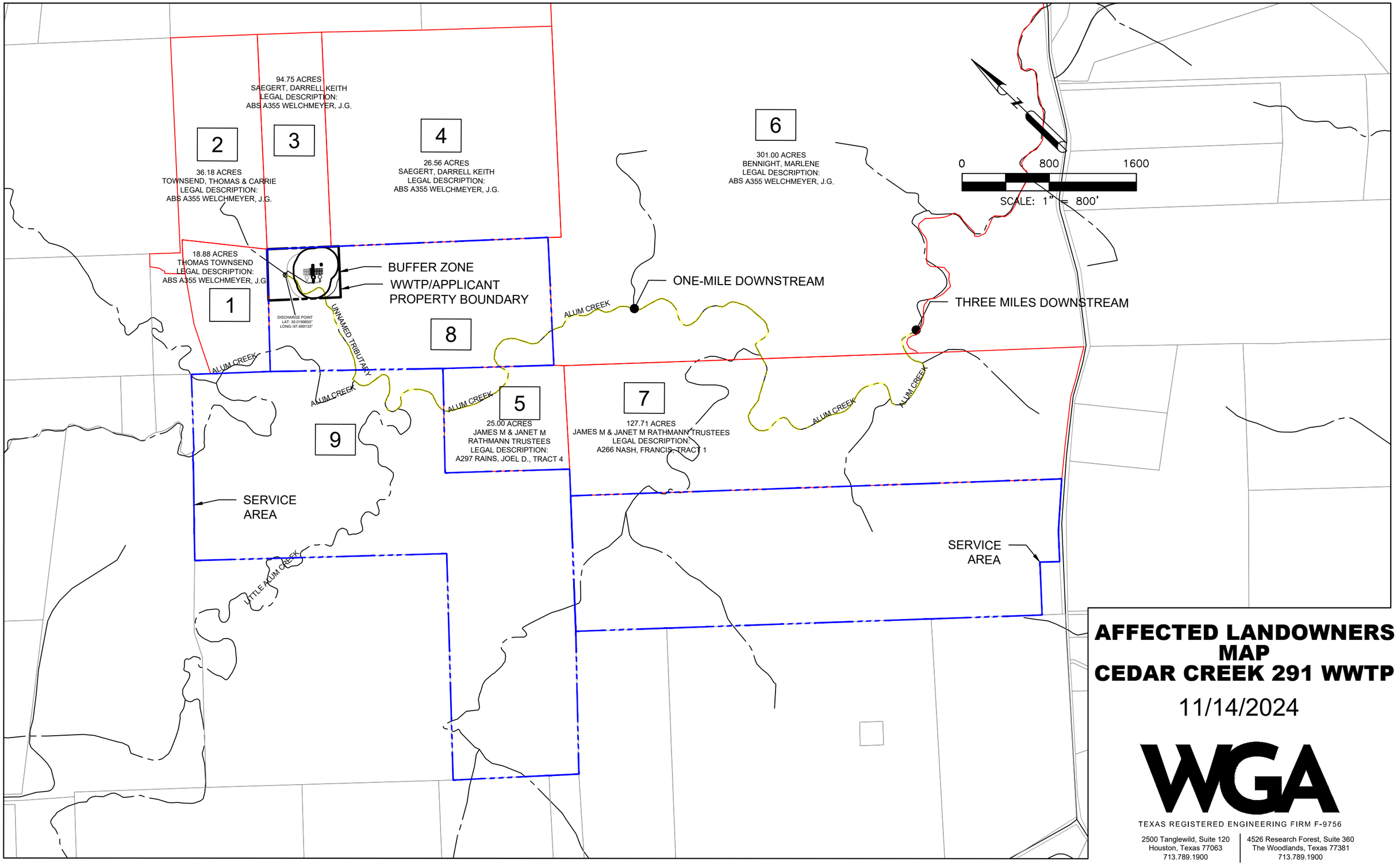
BASTROP CEDAR LLC
1000 RIDGE HOLLOW TRAIL
IRVING TX 75063

REF #	PROPERTY OWNER	ACREAGE	LEGAL DESCRIPTION	GEO ID	OWNERS ADDRESS 1	OWNERS ADDRESS 2	CITY	ST	ZIP
1	TOWNSEND, THOMAS L	18.875	ABS A355 Welchmeyer, J. G., 18.875 ACRES	R104173		P O BOX 22	BASTROP	TX	78602
2	TOWNSEND, THOMAS L & CARRIE R	36.176	ABS A355 Welchmeyer, J. G., 36.176 ACRES	R104173		P O BOX 22	BASTROP	TX	78602
3	SAEGERT, DARRELL KEITH	26.557	ABS A355 Welchmeyer, J. G., 26.5570 ACRES	R104173		125 S FITZWILLIAMS LN	BASTROP	TX	78602
4	SAEGERT, DARRELL KEITH	94.753	A355 Welchmeyer, J. G., ACRES 94.753	R104174		125 S FITZWILLIAMS LN	BASTROP	TX	78602
5	JAMES M & JANET M RATHMANN TRUST 1/18/1994	25	A297 RAINS, JOEL D., TRACT 4, ACRES 25.0000	R89959	JAMES M & JANET M RATHMANN TRUSTEES	1041 FM 20	CEDAR CREEK	TX	78612
6	BENNIGHT, MARLENE	301	A355 WELCHMEYER, J. G. , ACRES 301.0000	R41781	C/O SUE MORRIS	2004 FM 619	ELGIN	TX	78621
7	JAMES M & JANET M RATHMANN TRUST 1/18/1994	127.708	A266 NASH, FRANCIS, TRACT 1, ACRES 127.7080	R89958	JAMES M & JANET M RATHMANN TRUSTEES	1041 FM 20	CEDAR CREEK	TX	78612
8	BASTROP CEDAR LLC	68.585	ABS A355 Welchmeyer, J. G., 68.585 ACRES	R36376		1000 RIDGE HOLLOW TRAIL	IRVING	TX	75063
9	BASTROP CEDAR LLC	68.585	ABS A355 Welchmeyer, J. G., 68.585 ACRES	R36376		1000 RIDGE HOLLOW TRAIL	IRVING	TX	75063

* INFORMATION FROM BASTROP COUNTY APPRAISAL DISTRICT https://gis.bisclient.com/bastropcad/#



AFFECTED LANDOWNERS MAP
CEDAR CREEK 291 WWTP

11/14/2024

WGA
TEXAS REGISTERED ENGINEERING FIRM F-9756
2500 Tanglewild, Suite 120
Houston, Texas 77063
713.789.1900
4526 Research Forest, Suite 360
The Woodlands, Texas 77381
713.789.1900

PROJECT No. 40003-015