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, el Aviso de Recepción de Solicitud e Intención de Obtener un Permiso)
   - Inglés
   - Idioma alternativo (español)
3. Solicitud original

LB Simpson, LLC
TPDES Major Amendment – Plain Language Summary

English

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 Texas Administrative Code 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.

LB Simpson LLC (CN606383677) will operate the Bluestem wastewater treatment plant (RN111584058), an activated sludge process plant operated in the suspended growth mode. The facility is located approximately 8,550 feet west of the intersection of State Highway 21 and Farm-to-Market Road 2001, in Hays County, Texas 78640.

This application is for a major amendment to increase the final flow phase to a daily average of 900,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, aeration basins, final clarifiers, sludge digesters, chlorine contact chambers and a dechlorination chamber.

Spanish

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 son representaciones federales exigibles de la solicitud de permiso.

LB Simpson LLC (CN606383677) operará la planta de tratamiento de aguas residuales Bluestem (RN111584058), una planta de procesamiento de lodos activados que opera en modo de crecimiento suspendido. La planta se ubica aproximadamente a 8,550 pies al oeste de la intersección de la Carretera Estatal 21 y la Carretera Farm-to-Market 2001, en el Condado de Hays, Texas 78640.

Esta solicitud es para una enmienda importante para aumentar la fase de flujo final a un promedio diario de 900,000 galones por día de aguas residuales domésticas tratadas.

Se espera que las descargas de la instalación contengan la demanda bioquímica de oxígeno carbonoso de cinco días (CBO_5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH_3-N) y *Escherichia coli*. Se incluyen otros contaminantes potenciales en el Informe Técnico Doméstico 1.0, Sección 7, Análisis de Contaminantes del Efluente Tratado, de la solicitud de permiso. Las aguas residuales domésticas se tratan en una planta de lodos activados, cuyas unidades de tratamiento incluyen un tamiz de barras, tanques de aireación, clarificadores finales, digestores de lodos, cámaras de contacto con cloro y una cámara de decloración.

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
MODIFICACION

PERMISO NO. WQ001636001

SOLICITUD. LB Simpson LLC, 1001 Cypress Creek Drive, Suite 203, Cedar Park, Texas 78613, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0016236001 (EPA I.D. No. TX0143651) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar un aumento en la descarga de aguas residuales domésticas a un volumen que no exceda un flujo promedio diario de 900,000 galones por día. La planta está ubicada a 8,550 pies al oeste de la intersección de la carretera estatal 21 y Farm-to-Market Road 2001, cerca de la ciudad de Niederwald, en el Condado de Hays, Texas 78640. La ruta de descarga es del sitio de la planta a Brushy Creek; de allí al embalse del sitio 14 de SCS; de allí a Brushy Creek; de allí a Plum Creek. La TCEQ recibió esta solicitud el 22 de Julio de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en Kyle Public Library, 550 Scott Street, Kyle, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. 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=-97.769722,30.004166&level=18

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

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. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas

correos siguientes (1) la lista de correo permanente para recibir los avisos del 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 envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para detalles sobre el estado de la solicitud, favor de visitar la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Para buscar en la base de datos, utilizar el número de permiso para esta solicitud que aparece en la parte superior de este aviso.

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 LB Simpson LLC a la dirección indicada arriba o llamando a Sr. Vinod Nagi, Presidente, al 512-699-2532.

Fecha de emisión: 4 de agosto de 2025

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0016236001

APPLICATION. LB Simpson LLC, 1001 Cypress Creek Drive, Suite 203, Cedar Park, Texas 78613, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0016236001 (EPA I.D. No. TX0143651) to authorize an increase in the discharge of treated wastewater to a volume not to exceed a daily average flow of 900,000 gallons per day. The domestic wastewater treatment facility is located at 8,550 feet west of the intersection of State Highway 21 and Farm-to-Market Road 2001, near the city of Niederwald, in Hays County, Texas 78640. The discharge route is from the plant site to to Brushy Creek, thence to SCS Site 14 Reservoir, thence to Brushy Creek, thence to Plum Creek. TCEQ received this application on July 22, 2025. The permit application will be available for viewing and copying at Kyle Public Library, 550 Scott Street, Kyle, 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=-97.769722,30.004166&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 LB Simpson LLC at the address stated above or by calling Mr.Vinod Nagi, President, at 512-699-2532.

Issuance Date: August 4, 2025

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 22, 2025

Re: Confirmation of Submission of the Major Amendment without Renewal for Private Domestic Wastewater Authorization.

Dear Applicant:

This is an acknowledgement that you have successfully completed Major Amendment without Renewal for the Private Domestic Wastewater authorization.

ER Account Number: ER114684
Application Reference Number: 793021
Authorization Number: WQ0016236001
Site Name: Bluestem
Regulated Entity: RN111584058 - Bluestem
Customer(s): CN606383677 - Lb Simpson LLC

Please be aware that TCEQ staff may contact your designated contact for any additional information.

If you have any questions, you may contact the Applications Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by telephone at (512) 239-4671.

Sincerely,
Applications Review and Processing Team
Water Quality Division

Texas Commission on Environmental Quality

Update Domestic or Industrial Individual Permit

WQ0016236001

Site Information (Regulated Entity)

What is the name of the site to be authorized?	BLUESTEM
Does the site have a physical address?	No
Because there is no physical address, describe how to locate this site:	8550 WEST OF INT STATE HWY 21 & FM RD 2001 IN NEIDERWALD HAYS COUNTY TX 78640
City	NIEDERWALD
State	TX
ZIP	78640
County	HAYS
Latitude (N) (##.######)	30.004166
Longitude (W) (-###.######)	-97.769722
Primary SIC Code	
Secondary SIC Code	
Primary NAICS Code	
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	RN111584058
What is the name of the Regulated Entity (RE)?	BLUESTEM
Does the RE site have a physical address?	No
Physical Address	
Because there is no physical address, describe how to locate this site:	8550 LF W OF INT STATE HWY 21 & FRM RD 2001 IN NEIDERWALD HAYS COUNTY TX 78640
City	NIEDERWALD
State	TX
ZIP	78640
County	HAYS
Latitude (N) (##.######)	30.004166
Longitude (W) (-###.######)	-97.769722
Facility NAICS Code	
What is the primary business of this entity?	RESIDENTIAL MULTIFAMILY COMMERCIAL DEVELOPMENT

LB SIMP-Customer (Applicant) Information (Owner)

How is this applicant associated with this site?	Owner
What is the applicant's Customer Number (CN)?	CN606383677
Type of Customer	Corporation
Full legal name of the applicant:	
Legal Name	LB SIMPSON LLC
Texas SOS Filing Number	804787436
Federal Tax ID	
State Franchise Tax ID	32086944264

State Sales Tax ID	
Local Tax ID	
DUNS Number	
Number of Employees	
Independently Owned and Operated?	
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes
Responsible Authority Contact	
Organization Name	LB SIMPSON LLC
Prefix	MR
First	VINOD
Middle	
Last	NAGI
Suffix	
Credentials	
Title	PRESIDENT
Responsible Authority Mailing Address	
Enter new address or copy one from list:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	1001 CYPRESS CREEK RD STE 203
Routing (such as Mail Code, Dept., or Attn:)	
City	CEDAR PARK
State	TX
ZIP	78613
Phone (###-###-####)	5126992532
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	VNAGI@EAI-RE.COM

Billing Contact

Responsible contact for receiving billing statements:	
Select the permittee that is responsible for payment of the annual fee.	CN606383677, LB SIMPSON LLC
Organization Name	LB SIMPSON LLC
Prefix	
First	Ally
Middle	
Last	Martinez
Suffix	
Credentials	
Title	Bookkeeper
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	1001 CYPRESS CREEK RD STE 203
Routing (such as Mail Code, Dept., or Attn:)	
City	CEDAR PARK
State	TX

ZIP	78613
Phone (###-###-####)	5126992532
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	amartinez@EAI-RE.COM

Application Contact

Person TCEQ should contact for questions about this application:	
Same as another contact?	
Organization Name	Quiddity Engineering
Prefix	MR
First	Jonathan
Middle	
Last	Nguyen
Suffix	
Credentials	
Title	Permitting Specialist
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	912 S CAPITAL OF TEXAS HWY STE 300
Routing (such as Mail Code, Dept., or Attn:)	
City	WEST LAKE HILLS
State	TX
ZIP	78746
Phone (###-###-####)	5126855156
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	jnguyen@quiddity.com

Technical Contact

Person TCEQ should contact for questions about this application:	
Same as another contact?	Application Contact
Organization Name	Quiddity Engineering
Prefix	MR
First	Jonathan
Middle	
Last	Nguyen
Suffix	
Credentials	
Title	Permitting Specialist
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic

Mailing Address (include Suite or Bldg. here, if applicable)	912 S CAPITAL OF TEXAS HWY STE 300
Routing (such as Mail Code, Dept., or Attn:)	
City	WEST LAKE HILLS
State	TX
ZIP	78746
Phone (###-###-####)	5126855156
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	jnguyen@quiddity.com

DMR Contact

Person responsible for submitting Discharge Monitoring Report Forms:

Same as another contact?	CN606383677, LB SIMPSON LLC
Organization Name	LB SIMPSON LLC
Prefix	MR
First	VINOD
Middle	
Last	NAGI
Suffix	
Credentials	
Title	PRESIDENT
Enter new address or copy one from list:	

Mailing Address:

Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	1001 CYPRESS CREEK RD STE 203
Routing (such as Mail Code, Dept., or Attn:)	
City	CEDAR PARK
State	TX
ZIP	78613
Phone (###-###-####)	5126992532
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	VNAGI@EAI-RE.COM

Section 1# Permit Contact

Permit Contact#: 1

Person TCEQ should contact throughout the permit term.

1) Same as another contact?	CN606383677, LB SIMPSON LLC
2) Organization Name	LB SIMPSON LLC
3) Prefix	MR
4) First	VINOD
5) Middle	
6) Last	NAGI

7) Suffix	
8) Credentials	
9) Title	PRESIDENT
Mailing Address	
10) Enter new address or copy one from list	
11) Address Type	Domestic
11.1) Mailing Address (include Suite or Bldg. here, if applicable)	1001 CYPRESS CREEK RD STE 203
11.2) Routing (such as Mail Code, Dept., or Attn:)	
11.3) City	CEDAR PARK
11.4) State	TX
11.5) ZIP	78613
12) Phone (###-###-####)	5126992532
13) Extension	
14) Alternate Phone (###-###-####)	
15) Fax (###-###-####)	
16) E-mail	vnagi@eai-re.com

Owner Information

Owner of Treatment Facility	
1) Prefix	
2) First and Last Name	
3) Organization Name	LB Simpson LLC
4) Mailing Address	1001 Cypress Creek Rd., Suite 203
5) City	Cedar Park
6) State	TX
7) Zip Code	78613
8) Phone (###-###-####)	5126992532
9) Extension	
10) Email	vnagi@eai.re.com
11) What is ownership of the treatment facility?	Private
Owner of Land (where treatment facility is or will be)	
12) Prefix	
13) First and Last Name	
14) Organization Name	LB Simpson LLC
15) Mailing Address	1001 Cypress Creek Rd., Suite 203
16) City	Cedar Park
17) State	TX
18) Zip Code	78613
19) Phone (###-###-####)	5126992532
20) Extension	
21) Email	vnagi@eai-re.com
22) Is the landowner the same person as the facility owner or co-applicant?	Yes

General Information Renewal-Amendment

1) Current authorization expiration date:	10/26/2028
2) Current Facility operational status:	Inactive

3) Is the facility located on or does the treated effluent cross American Indian Land?	No
4) What is the application type that you are seeking?	Major Amendment without Renewal
4.1) Describe the proposed changes:	change flow phases from 0.10/0.20/0.30 MGD to 0.20/0.40/0.90 MGD
5) Current Authorization type:	Private Domestic Wastewater
5.1) What is the proposed total flow in MGD discharged at the facility?	0.9
5.2) Select the applicable fee	>= .50 & < 1.0 MGD - Major Amendment - $1,650
6) What is the classification for your authorization?	TPDES
6.1) What is the EPA Identification Number?	TX0143651
6.2) Is the wastewater treatment facility location in the existing permit accurate?	Yes
6.3) Are the point(s) of discharge and the discharge route(s) in the existing permit correct?	Yes
6.4) City nearest the outfall(s):	Niederwald
6.5) County where the outfalls are located:	HAYS
6.6) Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?	No
6.7) Is the daily average discharge at your facility of 5 MGD or more?	No
7) Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?	Yes
7.1) List each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application:	Jonathan Nguyen

Public Notice Information

Individual Publishing the Notices

1) Prefix	MR
2) First and Last Name	Jonathan Nguyen
3) Credential	
4) Title	Permitting Specialist
5) Organization Name	Quiddity Engineering
6) Mailing Address	912 S CAPITAL OF TEXAS HWY
7) Address Line 2	
8) City	WEST LAKE HILLS
9) State	TX
10) Zip Code	78746
11) Phone (###-###-####)	5126855156
12) Extension	
13) Fax (###-###-####)	
14) Email	jnguyen@quiddity.com

Contact person to be listed in the Notices

15) Prefix	MR
16) First and Last Name	Vinod Nagi
17) Credential	
18) Title	President
19) Organization Name	LB Simpson LLC
20) Phone (###-###-####)	5126992532
21) Fax (###-###-####)	

22) Email	vnagi@eai-re.com
Bilingual Notice Requirements	
23) 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
23.1) Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?	Yes
23.2) Do the students at these schools attend a bilingual education program at another location?	No
23.3) 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)?	No
23.4) Which language is required by the bilingual program?	Spanish

Section 1# Public Viewing Information

County#: 1

1) County	HAYS
2) Public building name	Kyle Public Library
3) Location within the building	
4) Physical Address of Building	550 Scott Street
5) City	Kyle
6) Contact Name	
7) Phone (###-###-####)	5122687411
8) Extension	
9) Is the location open to the public?	Yes

Plain Language

1) Plain Language

[File Properties]

File Name	LANG_01 A - PLS.pdf
Hash	A366E56DEAF511BD1E382121FB812D7F610FC3EA178955BED6AAAE209A44525A
MIME-Type	application/pdf

Supplemental Permit Information Form

1) Supplemental Permit Information Form (SPIF)

[File Properties]

File Name	SPIF_02 B - SPIF.pdf
Hash	2F6A1540748857D3178FE622FE8CF89F03C52311B514A6BBA7DD0ABA48D185C8
MIME-Type	application/pdf

Domestic Attachments

1) Attach an 8.5"x11", reproduced portion of the most current and original USGS Topographic Quadrangle Map(s) that meets the 1:24,000 scale.

[File Properties]

File Name	MAP_03 C - USGS Map.pdf

Hash	4539E2BB9A1AD5FE63C5691FF7F3322F7D727CB06AD881F11100226B32DEE212
MIME-Type	application/pdf

2) Public Involvement Plan attachment (TCEQ Form 20960)

[File Properties]

File Name	PIP_11 K - PIP.pdf
Hash	B059832D75C3050186931CC0E09B3C561C8DC01493DA91EFD03697D57BE29CD6
MIME-Type	application/pdf

3) Administrative Report 1.1

[File Properties]

File Name	ARPT_04 D - Application Technical Reports.pdf
Hash	85541F64797FD041905B3868D52B85356F63A0C62093BEF459F97923EC346930
MIME-Type	application/pdf

4) I confirm that all required sections of Technical Report 1.0 are complete and will be included in the Technical Attachment.	Yes
4.1) I confirm that Technical Report 1.1 is complete and included in the Technical Attachment.	Yes
4.2) I confirm that Worksheet 2.0 (Receiving Waters) is complete and included in the Technical Attachment.	Yes
4.3) Are you planning to include Worksheet 2.1 (Stream Physical Characteristics) in the Technical Attachment?	No
4.4) Are you planning to include Worksheet 4.0 (Pollutant Analyses Requirements) in the Technical Attachment?	No
4.5) Are you planning to include Worksheet 5.0 (Toxicity Testing Requirements) in the Technical Attachment?	No
4.6) Are you planning to include Worksheet 7.0 (Class V Injection Well Inventory/Authorization Form) in the Technical Attachment?	No

4.7) Technical Attachment

[File Properties]

File Name	TECH_04 D - Application Technical Reports.pdf
Hash	85541F64797FD041905B3868D52B85356F63A0C62093BEF459F97923EC346930
MIME-Type	application/pdf

5) Affected Landowners Map

[File Properties]

File Name	LANDMP_12 L - Affected Landowners.pdf
Hash	14BE9E8E7C81741EF213B7452BC7E864B31D4EC8E3ADB508EEAC703747696C07
MIME-Type	application/pdf

6) Landowners Cross Reference List

[File Properties]

File Name	LANDCRL_12 L - Affected Landowners.pdf
Hash	14BE9E8E7C81741EF213B7452BC7E864B31D4EC8E3ADB508EEAC703747696C07
MIME-Type	application/pdf

7) Landowner Avery Template

[File Properties]

File Name	LANDAT_Simpson Mailing Labels.docx
Hash	51056D8724EA1E1474A1DBD3ED538DEB8AEEE4F4CE8A933B73F432EDF9493507

MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

8) Buffer Zone Map

[File Properties]	
File Name	BUFF_ZM_05 E - Buffer Zone Maps.pdf
Hash	7C8E2C50D5E04A8D4A54DAC3278A352CCFA9475F66FAC7E72CB92492B427670C
MIME-Type	application/pdf

9) Flow Diagram

[File Properties]	
File Name	FLDIA_06 F - Flow Schematics.pdf
Hash	B95E871AB870B30FB5A557B9375EFE0C3B232BF3167D6688AF09100FA86D9885
MIME-Type	application/pdf

10) Site Drawing

[File Properties]	
File Name	SITEDR_07 G - Service Area Map.pdf
Hash	B7C767FF7AC54B5B549FB5A5A37A61ABF13983562E5D55167569E69DA67147A7
MIME-Type	application/pdf

11) Original Photographs

[File Properties]	
File Name	ORIGPH_13 M - Photos.pdf
Hash	E959FC4D0342A740176768BE5855497FE0E0E441F46B2CF541E21DE838539677
MIME-Type	application/pdf

12) Design Calculations

[File Properties]	
File Name	DES_CAL_08 H - Supplemental Technical Report.pdf
Hash	7E52FFB03B6E53B7EE29C275F525BE05C2809FF21F68C7C06DB208FA544B472A
MIME-Type	application/pdf

13) Solids Management Plan

[File Properties]	
File Name	SMP_09 I - Sludge Management Plan.pdf
Hash	309899BF7067CFA64E3BCE17DC7D630BD28C1E65399CE01936C41EFB8A114F06
MIME-Type	application/pdf

14) Water Balance

[File Properties]	
File Name	WB_WB.docx
Hash	D92D7D408267BB2CA875A0F4A67050C26B8DB55AE68B57CB41D5E4EF3F84522E
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

15) Other Attachments

[File Properties]	
File Name	OTHER_14 N - Area Water Wells.pdf
Hash	395AA77483867D542D9864F9B0903122139FFCF8D9F2793485D01337E17B9F37

MIME-Type	application/pdf
[File Properties]	
File Name	OTHER_15 O - Wetlands Map.pdf
Hash	2029E00A09B894C6F180A571F6486D4CDFBF6B78B69CF6645DD27F1AE6DF8173
MIME-Type	application/pdf
[File Properties]	
File Name	OTHER_16 P - Justification.pdf
Hash	B1E6A02DD0DA3551BEFD0FA544578C942F98E316C02677422385A8C0157C7F6E
MIME-Type	application/pdf
[File Properties]	
File Name	OTHER_17 Q - Floodplain Map.pdf
Hash	852B79508FE00E18EEF60EF3AF7670DBA6E3C657F4E2580460C4A1DCDF52165F
MIME-Type	application/pdf
[File Properties]	
File Name	OTHER_18 R - Windrose.pdf
Hash	575CF9FAEDF844C166931E63F4748758E7E99842E76DA669D8F00251BDBCD22C
MIME-Type	application/pdf
[File Properties]	
File Name	OTHER_10 J - Core Data Form.pdf
Hash	0320D79CD91A79ED8775BAC9C10BA834C4ACED00B74094809103B472FC9B21A2
MIME-Type	application/pdf

Certification

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

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.

1. I am Vinod Nagi, the owner of the STEERS account ER114684.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
8. I am knowingly and intentionally signing Update Domestic or Industrial Individual Permit WQ0016236001.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: Vinod Nagi OWNER

Customer Number:	CN606383677
Legal Name:	LB SIMPSON LLC
Account Number:	ER114684

Signature IP Address:	104.6.37.135
Signature Date:	2025-07-22
Signature Hash:	0A34A6AB810063D3FF81D1BD93D971BA7B25741569C235CFC374C560937B9C44
Form Hash Code at time of Signature:	8EA6B1E68953BEFCBF01A5820685304383FCEF89AE109DC899D2156D8651FC4E

Fee Payment

Transaction by:	The application fee payment transaction was made by ER114684/Vinod Nagi
Paid by:	The application fee was paid by VINOD NAGI
Fee Amount:	$1600.00
Paid Date:	The application fee was paid on 2025-07-22
Transaction/Voucher number:	The transaction number is 582EA000677504 and the voucher number is 776034

Submission

Reference Number:	The application reference number is 793021
Submitted by:	The application was submitted by ER114684/Vinod Nagi
Submitted Timestamp:	The application was submitted on 2025-07-22 at 15:49:56 CDT
Submitted From:	The application was submitted from IP address 104.6.37.135
Confirmation Number:	The confirmation number is 666255
Steers Version:	The STEERS version is 6.92
Permit Number:	The permit number is WQ0016236001

Additional Information

Application Creator: This account was created by Huan J Nguyen

ATTACHMENT D

APPLICATION TECHNICAL REPORT 1.0-1.1-2.0

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

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
- ☐ 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
- ☐ 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
- ☐ 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
- ☐ 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: Hays CAD

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):

N/A

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

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): 0.20

2-Hr Peak Flow (MGD): 0.80

Estimated construction start date: 1/2028

Estimated waste disposal start date: 1/2029

B. Interim II Phase

Design Flow (MGD): 0.40

2-Hr Peak Flow (MGD): 1.60

Estimated construction start date: 6/2030

Estimated waste disposal start date: 6/2031

C. Final Phase

Design Flow (MGD): 0.90

2-Hr Peak Flow (MGD): 3.60

Estimated construction start date: 12/2031

Estimated waste disposal start date: 12/2033

D. Current Operating Phase

Provide the startup date of the facility: Inactive, not constructed

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**.

See Supplemental Technical Report, Attachment H

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)
See Attachment H		

C. Process Flow Diagram

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

Attachment: Attachment F

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

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

- Latitude: 30.004258
- Longitude: -97.769753

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: Attachment G

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

Residential subdivision located just outside of the City of Niederwald

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
Not yet constructed		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**.

Will be approved prior to construction

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.

Will be met by road ROW to the north and detention pond to the south

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*.

Notice of Completion will be submitted 45 days prior to startup of each phase.

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 N/A or TXRNE N/A

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:

N/A

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.

N/A

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.

N/A

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.

N/A

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 the 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). ***Water 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	N/A	N/A	N/A	N/A	N/A
Total Suspended Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Ammonia Nitrogen, mg/l	N/A	N/A	N/A	N/A	N/A
Nitrate Nitrogen, mg/l	N/A	N/A	N/A	N/A	N/A
Total Kjeldahl Nitrogen, mg/l	N/A	N/A	N/A	N/A	N/A
Sulfate, mg/l	N/A	N/A	N/A	N/A	N/A
Chloride, mg/l	N/A	N/A	N/A	N/A	N/A
Total Phosphorus, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A
Dissolved Oxygen*, mg/l	N/A	N/A	N/A	N/A	N/A
Chlorine Residual, mg/l	N/A	N/A	N/A	N/A	N/A
E.coli (CFU/100ml) freshwater	N/A	N/A	N/A	N/A	N/A
Entercocci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Electrical Conductivity, µmohs/cm, †	N/A	N/A	N/A	N/A	N/A
Oil & Grease, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity ($CaCO_3$)*, mg/l	N/A	N/A	N/A	N/A	N/A

*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	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A
Fluoride, mg/l	N/A	N/A	N/A	N/A	N/A
Aluminum, mg/l	N/A	N/A	N/A	N/A	N/A

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Alkalinity ($CaCO_3$), mg/l	N/A	N/A	N/A	N/A	N/A

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Will be selected prior to construction

Facility Operator's License Classification and Level: Will be selected prior to construction

Facility Operator's License Number: Will be selected prior to construction

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	Off-site Third-Party Handler or Preparer	Bulk	N/A	Class B: PSRP Aerobic Digestion	Option 5: Aerobic process for 14 days at >40C

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

D. Disposal site

Disposal site name: will be selected prior to startup

TCEQ permit or registration number: will be selected prior to startup

County where disposal site is located: will be selected prior to startup

E. Transportation method

Method of transportation (truck, train, pipe, other): will be selected prior to startup

Name of the hauler: will be selected prior to startup

Hauler registration number: will be selected prior to startup

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

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.

See Attachment P – Justification

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

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: N/A

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

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): N/A

Average Influent Organic Strength or BOD_5 Concentration in mg/l: N/A

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): N/A

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

N/A

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	0.90	300
Subdivision		

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
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	0.90	
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: 5

Total Suspended Solids, mg/l: 5

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 1

Dissolved Oxygen, mg/l: 4.0

Other: Click to enter text.

B. Interim II Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 5

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 1

Dissolved Oxygen, mg/l: 4.0

Other: Click to enter text.

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 5

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 1

Dissolved Oxygen, mg/l: 4.0

Other: Click to enter text.

D. Disinfection Method

Identify the proposed method of disinfection.

☒ Chlorine: 1.0 mg/l after 20 minutes detention time at peak flow

Dechlorination process: sodium bisulfite

☐ 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: Attachment H

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.

N/A

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

See Attachment Q – Floodplain Map

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: N/A

If no, provide the approximate date you anticipate submitting your application to the Corps: N/A

B. Wind rose

Attach a wind rose: Attachment R

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)**: N/A

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)**: N/A

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

Attach a solids management plan to the application.

Attachment: Attachment I

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: N/A

Distance and direction to the intake: N/A

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

Attachment: N/A

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: N/A

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

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

N/A

C. Sea grasses

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

☐ Yes ☐ No

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

N/A

Section 3. Classified Segments (Instructions Page 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: Brushy Creek

A. Receiving water type

Identify the appropriate description of the receiving waters.

☒ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: Click 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.

Brushy 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.

Dry channel with small amount of water

Date and time of observation: 6/30/2025

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
☐ Urban runoff
☐ Upstream discharges
☒ Agricultural runoff
☐ Septic tanks
☐ Other(s), specify: Click to enter text.

B. Waterbody uses

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

☒ Livestock watering
☐ Contact recreation
☐ Irrigation withdrawal
☐ Non-contact recreation
☐ Fishing
☐ Navigation
☐ Domestic water supply
☐ Industrial water supply
☐ Park activities
☐ 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

ATTACHMENT J

CORE DATA FORM

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

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 **Major Amendment**

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 606383677		**RN 111584058**

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:*
LB Simpson, LLC	

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
804787436	32086944264		

11. Type of Customer:	☒ Corporation	☐ Individual	Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other		☐ Sole Proprietorship	☐ Other:

12. Number of Employees	**13. Independently Owned and Operated?**
☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher	☒ **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:							
1001 Cypress Creek Dr.							
STE 203							
City	Cedar Park	**State**	TX	**ZIP**	78613	**ZIP + 4**	

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	vnagi@eai-re.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 699-2532		( ) -

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.)*

Simpson Wastewater Treatment Facility

23. Street Address of the Regulated Entity: ***(No PO Boxes)***								
	City		**State**		**ZIP**		**ZIP + 4**	
24. County	Hays							

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

25. Description to Physical Location:	8,550 feet west of the intersection of State Highway 21 and Farm-to-Market Road 2001				
26. Nearest City			**State**	**Nearest ZIP Code**	
Niederwald			TX	78640	

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:	29.998786		**28. Longitude (W) In Decimal:**	-97.774642	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

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		221320	

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

treatment of municipal wastewater

34. Mailing Address:	**1001 Cypress Creek Rd.**							
	STE 203							
	City	**Cedar Park**	**State**	**TX**	**ZIP**	**78613**	**ZIP + 4**	
35. E-Mail Address:	**vnagi@eai-re.com**							

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(512) 699-2532		( ) -

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:
	WQ0016236001			

SECTION IV: Preparer Information

40. Name:	Jonathan Nguyen	**41. Title:**	Permitting Specialist

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 685-5156		**( )** -	jnguyen@quiddity.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:	LB Simpson, LLC	**Job Title:**	President
Name *(In Print):*	Vinod Nagi	**Phone:**	**(** 512 **)** 699- **2532**
Signature:		**Date:**	

ATTACHMENT A

PLAIN LANGUAGE SUMMARY

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

LB Simpson, LLC
TPDES Major Amendment – Plain Language Summary

English

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 Texas Administrative Code 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.

LB Simpson LLC (CN606383677) will operate the Bluestem wastewater treatment plant (RN111584058), an activated sludge process plant operated in the suspended growth mode. The facility is located approximately 8,550 feet west of the intersection of State Highway 21 and Farm-to-Market Road 2001, in Hays County, Texas 78640.

This application is for a major amendment to increase the final flow phase to a daily average of 900,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, aeration basins, final clarifiers, sludge digesters, chlorine contact chambers and a dechlorination chamber.

Spanish

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 son representaciones federales exigibles de la solicitud de permiso.

LB Simpson LLC (CN606383677) operará la planta de tratamiento de aguas residuales Bluestem (RN111584058), una planta de procesamiento de lodos activados que opera en modo de crecimiento suspendido. La planta se ubica aproximadamente a 8,550 pies al oeste de la intersección de la Carretera Estatal 21 y la Carretera Farm-to-Market 2001, en el Condado de Hays, Texas 78640.

Esta solicitud es para una enmienda importante para aumentar la fase de flujo final a un promedio diario de 900,000 galones por día de aguas residuales domésticas tratadas.

Se espera que las descargas de la instalación contengan la demanda bioquímica de oxígeno carbonoso de cinco días (CBO_5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH_3-N) y *Escherichia coli*. Se incluyen otros contaminantes potenciales en el Informe Técnico Doméstico 1.0, Sección 7, Análisis de Contaminantes del Efluente Tratado, de la solicitud de permiso. Las aguas residuales domésticas se tratan en una planta de lodos activados, cuyas unidades de tratamiento incluyen un tamiz de barras, tanques de aireación, clarificadores finales, digestores de lodos, cámaras de contacto con cloro y una cámara de decloración.

ATTACHMENT K

PUBLIC INVOLVEMENT PLAN

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

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.

N/A

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.

LB Simpson LLC (CN606383677) will operate the Bluestem wastewater treatment plant (RN111584058), an activated sludge process plant operated in the suspended growth mode. The facility is located approximately 8,550 feet west of the intersection of State Highway 21 and Farm-to-Market Road 2001, in Hays County, Texas 78640.

This application is for a major amendment to increase the final flow phase to a daily average of 900,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N), and Escherichia coli. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, aeration basins, final clarifiers, sludge digesters, chlorine contact chambers and a dechlorination chamber.

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.

Niederwald

(City)

Hays

(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

48.3%

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

$49,625

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

85% Hispanic or Latino, 6% Black or African American, 8% White

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

51.9% Spanish, 46.3% English only, 1.8% Other Indo-European language

(e) Languages commonly spoken in area by percentage

51.9% Spanish, 46.3% English only, 1.8% Other Indo-European language

(f) Community and/or Stakeholder Groups

N/A

(g) Historic public interest or involvement

N/A

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) Kyle Public Library

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)

ATTACHMENT C

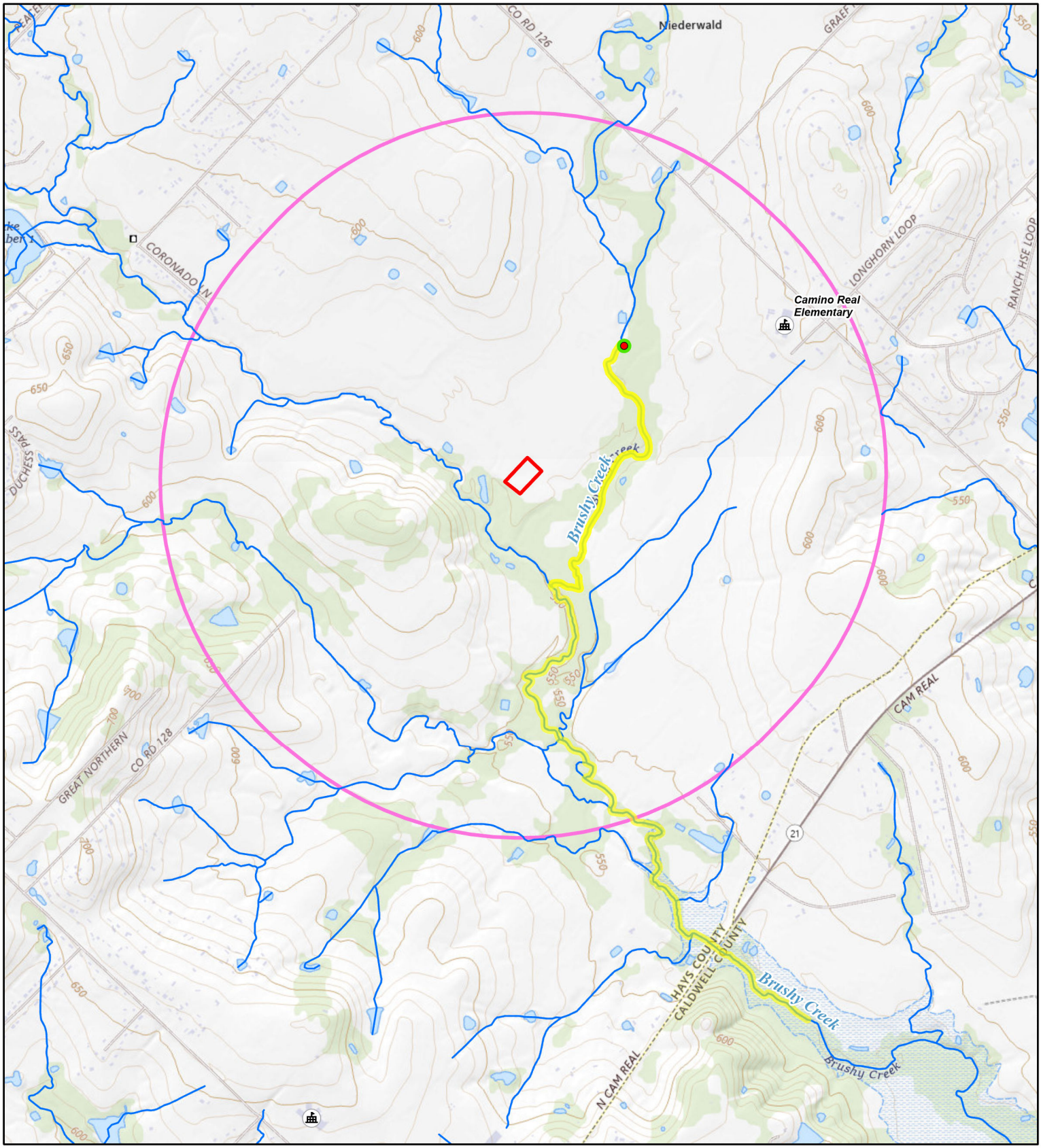
USGS MAP

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

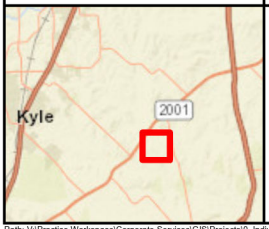
JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

USGS TOPO MAP



VICINITY MAP
1 INCH = 10 MILES



SIMPSON TPDES
HAYS COUNTY, TEXAS

Scale: 1:24,000

Legend

- Schools
- Outfall
- NHD Stream
- Discharge Route
- WWTP Boundary
- 1 Mile Radius
- National park or forest
- State park or forest
- Regional park
- County park
- Local park

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

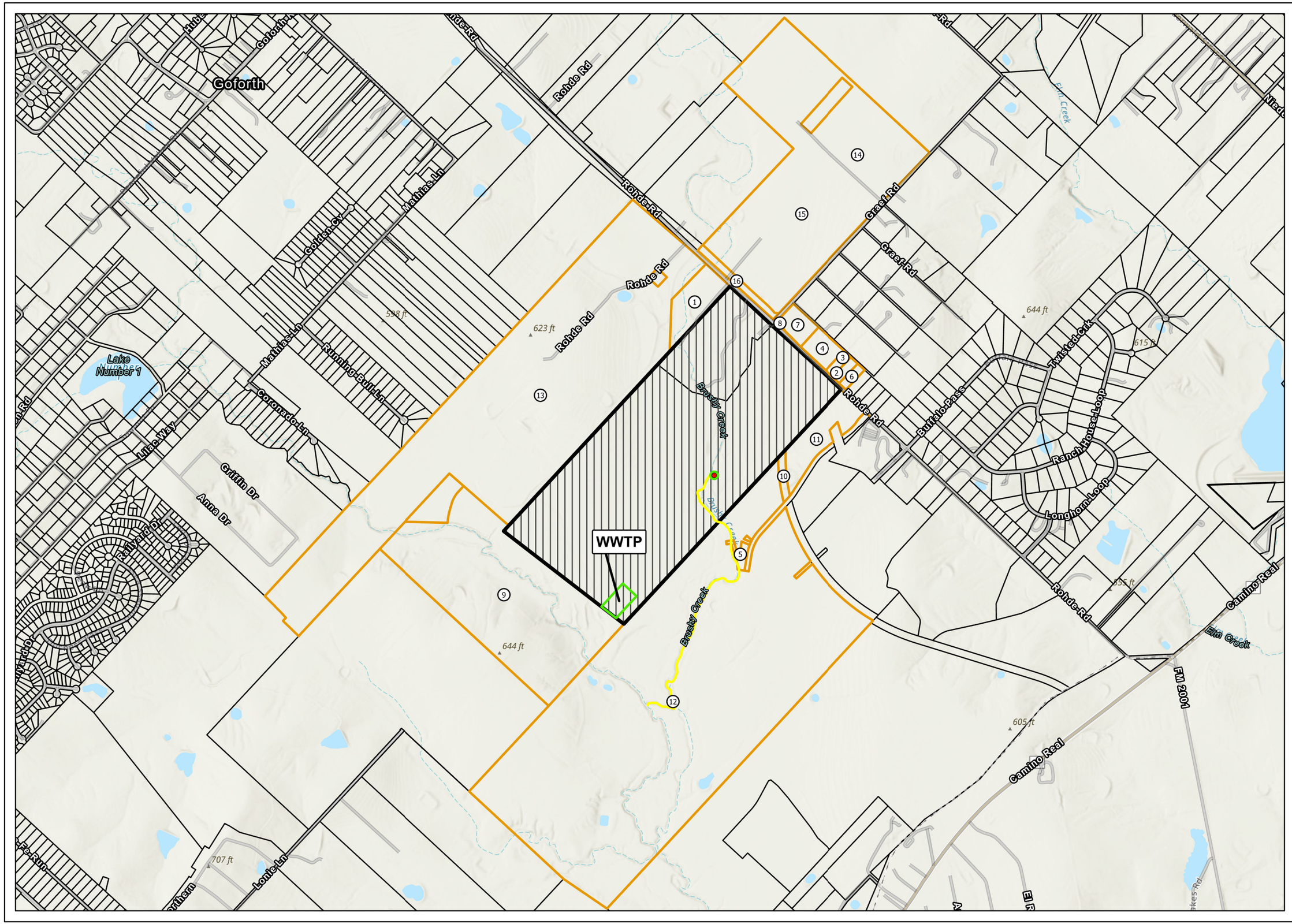
ATTACHMENT L

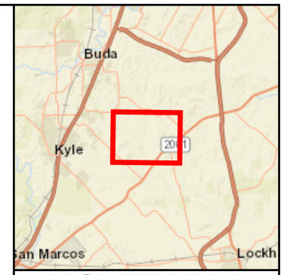
AFFECTED LANDOWNERS

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337





VICINITY MAP
1 INCH = 10 MILES

Legend

- Discharge Point
- Discharge Route
- WWTP Boundary
- Affected Landowners
- HCAD Parcels
- Property owned by permittee

AFFECTED LANDOWNERS MAP

SIMPSON TPDES
HAYS COUNTY, TEXAS

0 1,400
1 INCH = 1,400 FEET

Disclaimer: This product is offered for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property, governmental and/or political boundaries or related facilities to said boundary. No express warranties are made by Quiddity Engineering concerning the accuracy, completeness, reliability, or usability of the information included within this exhibit.

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_Individuals\J_Nguyen\Simpson TPDES\Simpson TPDES.aprx Project Number: 29780-0002-01001 Date: 6/20/2025 User Name: ahinkle

912 S. Capital of Texas Highway, Suite 300
Austin, Texas 78746
Tel: 512.441.9493
www.quiddity.com

LB Simpson, LLC
List of Affected Landowners

Object ID	Owner	Mailing Address
1	MCCORMICK, JOHN T	PO BOX 8, FENTRESS, TX 78622-0008
2	HANSON JEREMY	2105 ROHDE RD, KYLE, TX 78640-5259
3	HERNANDEZ, JOSE	2093 ROHDE RD, KYLE, TX 78640
4	REYES HILARIO & DIANA LINDA	2041 ROHDE RD, KYLE, TX 78640-6011
5	WALTON TEXAS LP	C/O WALTON GLOBAL HOLDINGS, LLC, 8800 N GAINEY CENTER DR STE 345, SCOTTSDALE, AZ 85258-2124
6	TREMARIA HUMBERTO A & CATHERINE	2119 ROHDE RD, KYLE, TX 78640
7	RAMIREZ-PEREZ, PORFIRIO	1549 GRAEF RD, KYLE, TX 78640-4492
8	HAYS COUNTY TEXAS	111 E SAN ANTONIO ST STE 202, SAN MARCOS, TX 78666
9	WALTON TEXAS LP	C/O WALTON GLOBAL HOLDINGS, LLC, 8800 N GAINEY CENTER DR STE 345, SCOTTSDALE, AZ 85258-2124
10	HAYS COUNTY	111 E SAN ANTONIO ST STE 202, SAN MARCOS, TX 78666-5534
11	WALTON TEXAS LP	C/O WALTON GLOBAL HOLDINGS, LLC, 8800 N GAINEY CENTER DR STE 345, SCOTTSDALE, AZ 85258-2124
12	WALTON TEXAS LP	C/O WALTON GLOBAL HOLDINGS, LLC, 8800 N GAINEY CENTER DR STE 345, SCOTTSDALE, AZ 85258-2124
13	MAXWELL SETTLEMENT TRUST	MAXWELL JOE DRAKE TRUSTEE 1500 ROHDE RD, KYLE, TX 78640
14	TRIPLE EWALD FARMS LLC	104 HIDDEN HILLS DR, SPICEWOOD, TX 78669-1384
15	TRIPLE EWALD FARMS LLC	104 HIDDEN HILLS DR, SPICEWOOD, TX 78669-1384
16	COUNTY OF HAYS TEXAS	Attn: COUNTY AUDITOR, 712 S STAGECOACH TRL, SAN MARCOS, TX 78666-5999

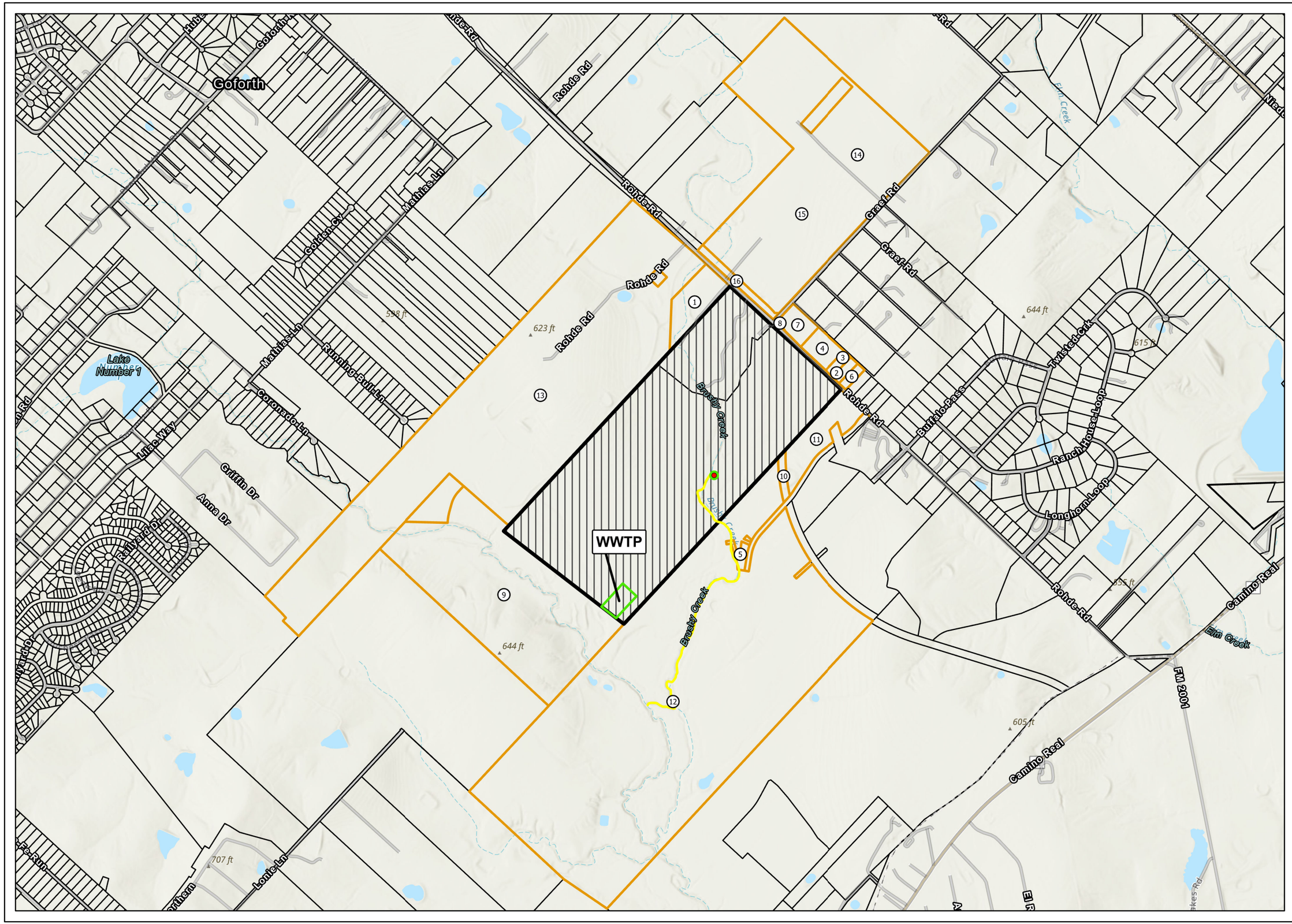
ATTACHMENT L

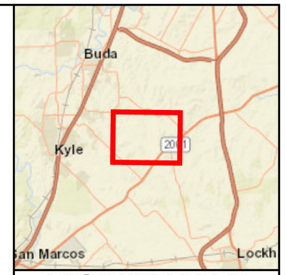
AFFECTED LANDOWNERS

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337





VICINITY MAP
1 INCH = 10 MILES

Legend

- Discharge Point
- Discharge Route
- WWTP Boundary
- Affected Landowners
- HCAD Parcels
- Property owned by permittee

AFFECTED LANDOWNERS MAP

SIMPSON TPDES
HAYS COUNTY, TEXAS

0 1,400
1 INCH = 1,400 FEET

Disclaimer: This product is offered for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property, governmental and/or political boundaries or related facilities to said boundary. No express warranties are made by Quiddity Engineering concerning the accuracy, completeness, reliability, or usability of the information included within this exhibit.

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_Individuals\J_Nguyen\Simpson TPDES\Simpson TPDES.aprx Project Number: 29780-0002-01001 Date: 6/20/2025 User Name: ahinkle

912 S. Capital of Texas Highway, Suite 300
Austin, Texas 78746
Tel: 512.441.9493
www.quiddity.com

LB Simpson, LLC
List of Affected Landowners

Object ID	Owner	Mailing Address
1	MCCORMICK, JOHN T	PO BOX 8, FENTRESS, TX 78622-0008
2	HANSON JEREMY	2105 ROHDE RD, KYLE, TX 78640-5259
3	HERNANDEZ, JOSE	2093 ROHDE RD, KYLE, TX 78640
4	REYES HILARIO & DIANA LINDA	2041 ROHDE RD, KYLE, TX 78640-6011
5	WALTON TEXAS LP	C/O WALTON GLOBAL HOLDINGS, LLC, 8800 N GAINEY CENTER DR STE 345, SCOTTSDALE, AZ 85258-2124
6	TREMARIA HUMBERTO A & CATHERINE	2119 ROHDE RD, KYLE, TX 78640
7	RAMIREZ-PEREZ, PORFIRIO	1549 GRAEF RD, KYLE, TX 78640-4492
8	HAYS COUNTY TEXAS	111 E SAN ANTONIO ST STE 202, SAN MARCOS, TX 78666
9	WALTON TEXAS LP	C/O WALTON GLOBAL HOLDINGS, LLC, 8800 N GAINEY CENTER DR STE 345, SCOTTSDALE, AZ 85258-2124
10	HAYS COUNTY	111 E SAN ANTONIO ST STE 202, SAN MARCOS, TX 78666-5534
11	WALTON TEXAS LP	C/O WALTON GLOBAL HOLDINGS, LLC, 8800 N GAINEY CENTER DR STE 345, SCOTTSDALE, AZ 85258-2124
12	WALTON TEXAS LP	C/O WALTON GLOBAL HOLDINGS, LLC, 8800 N GAINEY CENTER DR STE 345, SCOTTSDALE, AZ 85258-2124
13	MAXWELL SETTLEMENT TRUST	MAXWELL JOE DRAKE TRUSTEE 1500 ROHDE RD, KYLE, TX 78640
14	TRIPLE EWALD FARMS LLC	104 HIDDEN HILLS DR, SPICEWOOD, TX 78669-1384
15	TRIPLE EWALD FARMS LLC	104 HIDDEN HILLS DR, SPICEWOOD, TX 78669-1384
16	COUNTY OF HAYS TEXAS	Attn: COUNTY AUDITOR, 712 S STAGECOACH TRL, SAN MARCOS, TX 78666-5999

COUNTY OF HAYS TEXAS
ATTN: COUNTY AUDITOR
712 S STAGECOACH TRL
SAN MARCOS TX 78666-5999

HANSON JEREMY
2105 ROHDE RD
KYLE TX 78640-5259

HAYS COUNTY TEXAS
111 E SAN ANTONIO ST
STE 202
SAN MARCOS TX 78666

JOSE HERNANDEZ
2093 ROHDE RD
KYLE TX 78640

MAXWELL SETTLEMENT TRUST
1500 ROHDE RD
KYLE TX 78640

JOHN T MCCORMICK
PO BOX 8
FENTRESS TX 78622-0008

PORFIRIO RAMIREZ-PEREZ
1549 GRAEF RD
KYLE TX 78640-4492

REYES HILARIO & DIANA LINDA
2041 ROHDE RD
KYLE TX 78640-6011

TREMARIA HUMBERTO
2119 ROHDE RD
KYLE TX 78640

TRIPLE EWALD FARMS LLC
104 HIDDEN HILLS DR
SPICEWOOD TX 78669-1384

WALTON TEXAS LP C/O WALTON
GLOBAL HOLDINGS LLC
8800 NORTH GAINEY CENTER DR
STE 345
SCOTTSDALE AZ 85258-2124

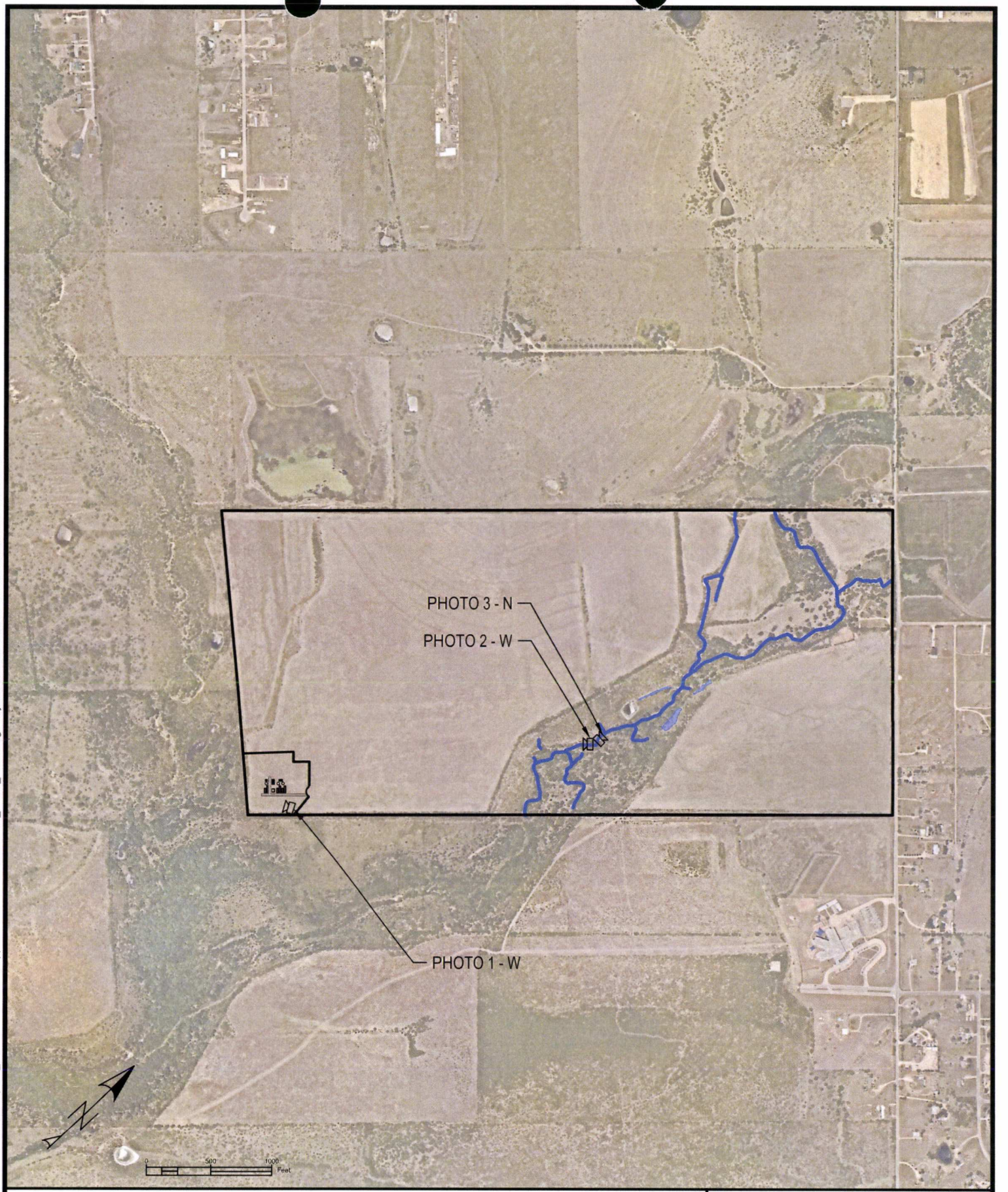
ATTACHMENT M

ORIGINAL PHOTOGRAPHS

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



G:\TXC\Projects\Brohn_Homes\10189-00-Simpson_Tract\TPDES Permit Application 10189\Exhibits\EXH_Buffer_Zone.dwg Layout: Photo Locations Plotted: 9/29/2022 10:54:35 AM

ATTACHMENT 4

ORIGINAL PHOTOGRAPHS

BGE, INC.
101 WEST LOUIS HENNA BLVD, SUITE 400
AUSTIN, TX 78728
TBPE Registration No. F-1046
TEL. 512-879-0400 www.bgeinc.com

Photo 1: WWTP Future Site

Photo 2: Downstream of discharge point

Photo 3: Upstream of discharge point

ATTACHMENT B

SUPPLEMENTAL PERMIT INFORMATION FORM

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

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: LB Simpson LLC

   Permit No. WQ00 16236001 EPA ID No. TX 0143651

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

   Approximately 8,550 feet west of the intersection of State Highway 21 and Farm-to-Market Road 2001, in Hays County, Texas 78640

   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: Jonathan Nguyen

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

Title: Permitting Specialist

Mailing Address: 912 South Capital of Texas Highway, Suite 300

City, State, Zip Code: Austin, TX 78746

Phone No.: 512-685-5156 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: jnguyen@quiddity.com

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

   Owner is the permittee.

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.

   To Brushy Creek, then to SCS Site 14 Reservoir, then to Brushy Creek, then to Plum Creek in Segment No. 1810 of the Guadalupe River Basin

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

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

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

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

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

   Approximately 3.56 acres will be used for the treatment plant.

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

   Current land use is agricultural.

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:

None

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

Property has previously been used for agricultural purposes.

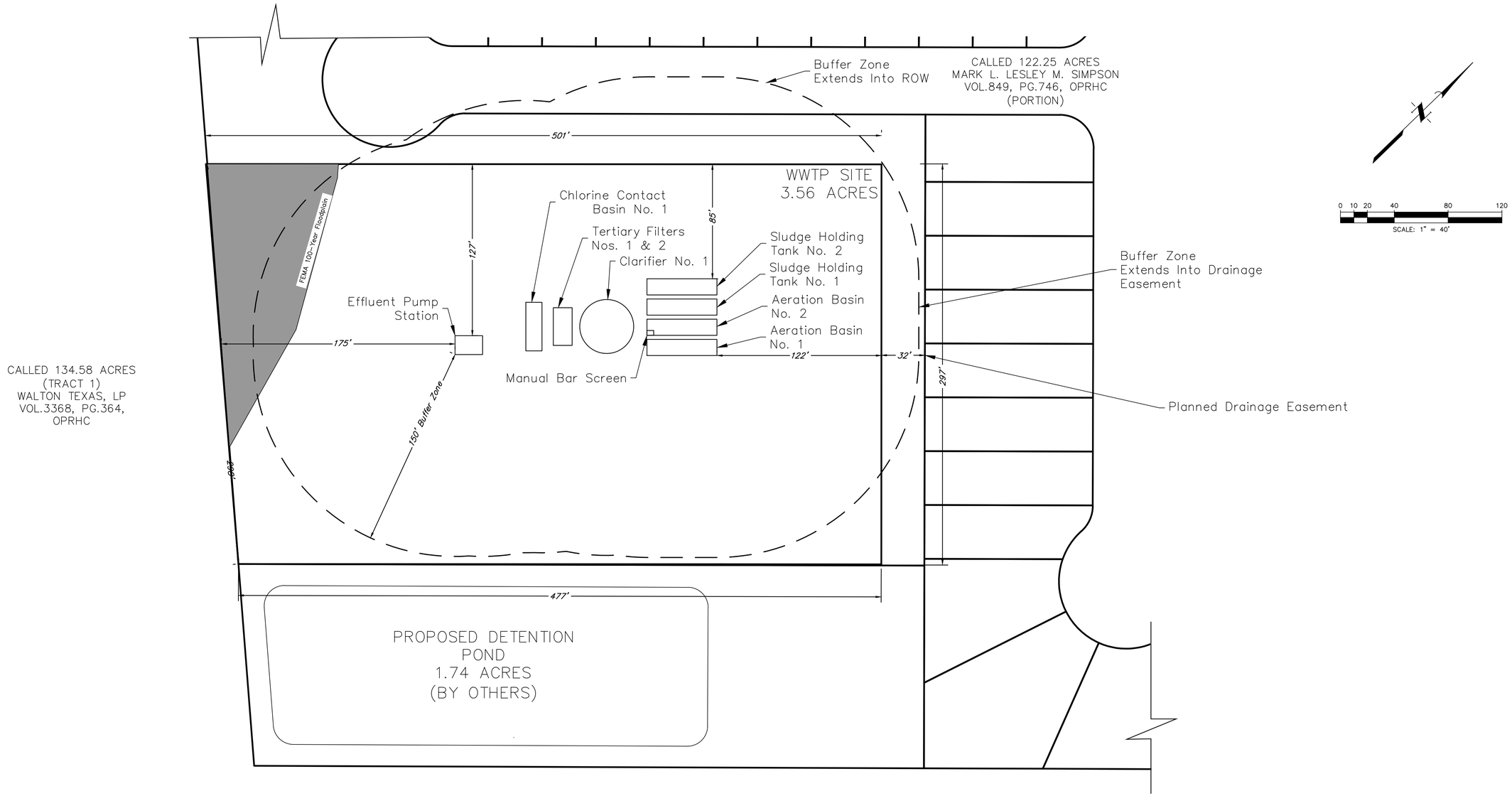
ATTACHMENT E

BUFFER ZONE MAPS

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

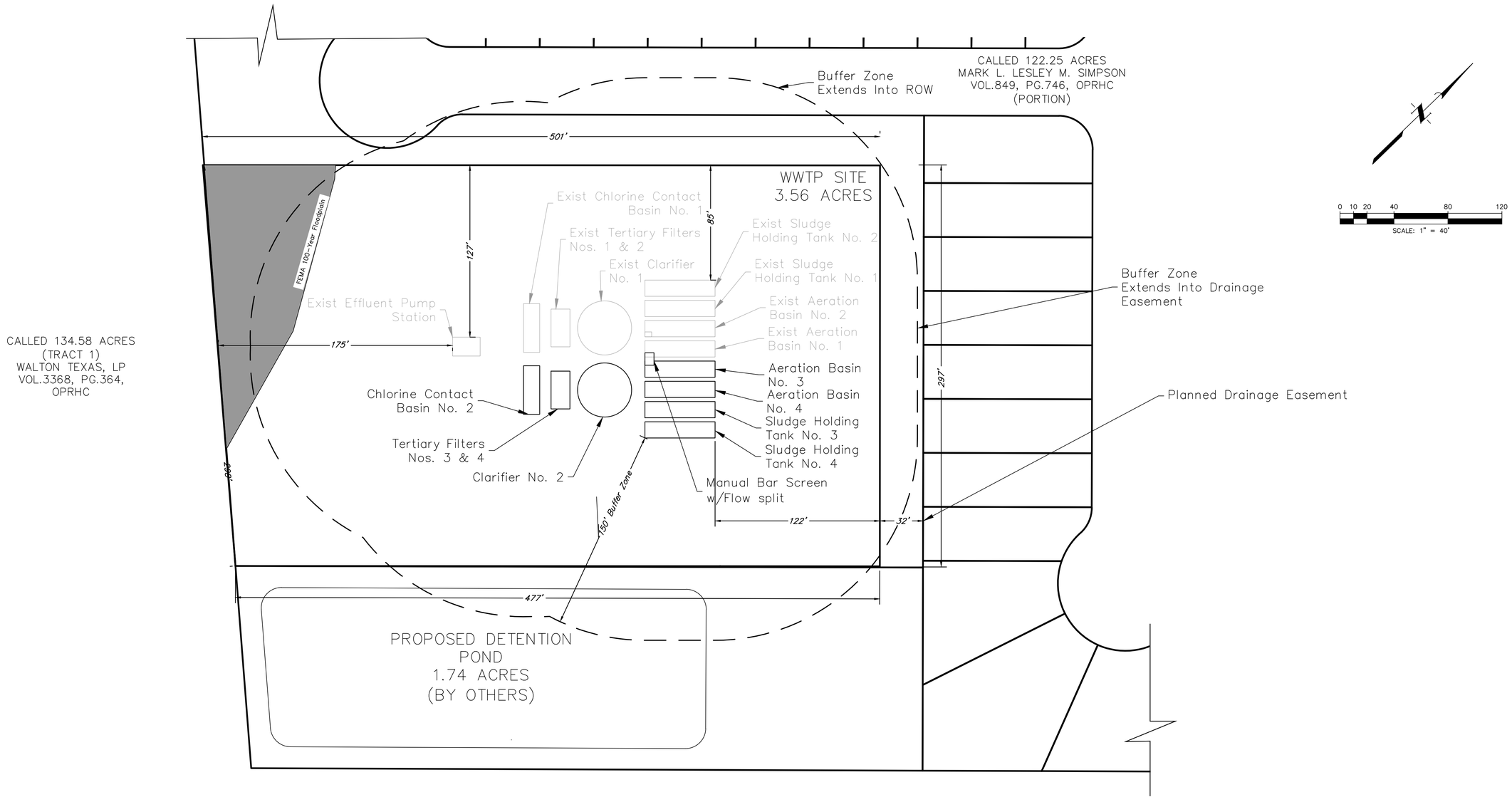
QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



BUFFER ZONE EXHIBIT
INTERIM PHASE I – 0.20 MGD
SIMPSON
WASTEWATER TREATMENT
PLANT
PERMIT No. WQ0016236001

HAYS COUNTY, TEXAS

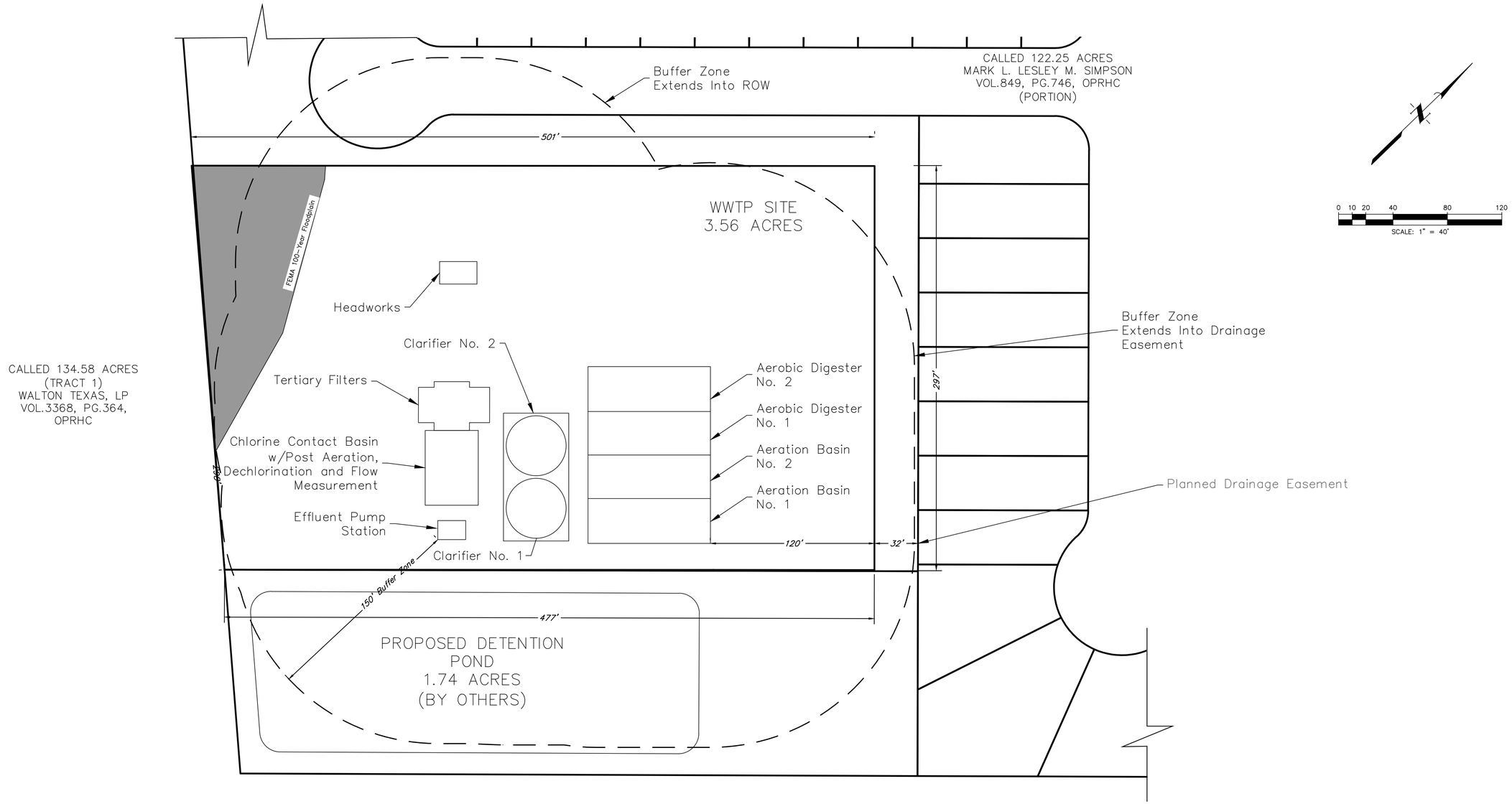
QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



BUFFER ZONE EXHIBIT
INTERIM PHASE II – 0.40 MGD
SIMPSON
WASTEWATER TREATMENT PLANT
PERMIT No. WQ0016236001

HAYS COUNTY, TEXAS

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



BUFFER ZONE EXHIBIT
FINAL PHASE – 0.90 MGD
SIMPSON
WASTEWATER TREATMENT PLANT
PERMIT No. WQ0016236001

HAYS COUNTY, TEXAS

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
9300 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

ATTACHMENT D

APPLICATION TECHNICAL REPORT 1.0-1.1-2.0

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

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
- ☐ 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
- ☐ 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
- ☐ 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
- ☐ 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: Hays CAD

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):

N/A

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

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): 0.20

2-Hr Peak Flow (MGD): 0.80

Estimated construction start date: 1/2028

Estimated waste disposal start date: 1/2029

B. Interim II Phase

Design Flow (MGD): 0.40

2-Hr Peak Flow (MGD): 1.60

Estimated construction start date: 6/2030

Estimated waste disposal start date: 6/2031

C. Final Phase

Design Flow (MGD): 0.90

2-Hr Peak Flow (MGD): 3.60

Estimated construction start date: 12/2031

Estimated waste disposal start date: 12/2033

D. Current Operating Phase

Provide the startup date of the facility: Inactive, not constructed

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**.

See Supplemental Technical Report, Attachment H

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)
See Attachment H		

C. Process Flow Diagram

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

Attachment: Attachment F

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

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

- Latitude: 30.004258
- Longitude: -97.769753

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: Attachment G

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

Residential subdivision located just outside of the City of Niederwald

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
Not yet constructed		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**.

Will be approved prior to construction

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.

Will be met by road ROW to the north and detention pond to the south

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*.

Notice of Completion will be submitted 45 days prior to startup of each phase.

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 N/A or TXRNE N/A

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:

N/A

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.

N/A

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.

N/A

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.

N/A

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 the 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). ***Water 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	N/A	N/A	N/A	N/A	N/A
Total Suspended Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Ammonia Nitrogen, mg/l	N/A	N/A	N/A	N/A	N/A
Nitrate Nitrogen, mg/l	N/A	N/A	N/A	N/A	N/A
Total Kjeldahl Nitrogen, mg/l	N/A	N/A	N/A	N/A	N/A
Sulfate, mg/l	N/A	N/A	N/A	N/A	N/A
Chloride, mg/l	N/A	N/A	N/A	N/A	N/A
Total Phosphorus, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A
Dissolved Oxygen*, mg/l	N/A	N/A	N/A	N/A	N/A
Chlorine Residual, mg/l	N/A	N/A	N/A	N/A	N/A
E.coli (CFU/100ml) freshwater	N/A	N/A	N/A	N/A	N/A
Entercocci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Electrical Conductivity, µmohs/cm, †	N/A	N/A	N/A	N/A	N/A
Oil & Grease, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity ($CaCO_3$)*, mg/l	N/A	N/A	N/A	N/A	N/A

*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	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A
Fluoride, mg/l	N/A	N/A	N/A	N/A	N/A
Aluminum, mg/l	N/A	N/A	N/A	N/A	N/A

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Alkalinity ($CaCO_3$), mg/l	N/A	N/A	N/A	N/A	N/A

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Will be selected prior to construction

Facility Operator's License Classification and Level: Will be selected prior to construction

Facility Operator's License Number: Will be selected prior to construction

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	Off-site Third-Party Handler or Preparer	Bulk	N/A	Class B: PSRP Aerobic Digestion	Option 5: Aerobic process for 14 days at >40C

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

D. Disposal site

Disposal site name: will be selected prior to startup

TCEQ permit or registration number: will be selected prior to startup

County where disposal site is located: will be selected prior to startup

E. Transportation method

Method of transportation (truck, train, pipe, other): will be selected prior to startup

Name of the hauler: will be selected prior to startup

Hauler registration number: will be selected prior to startup

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

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.

See Attachment P – Justification

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

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: N/A

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

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): N/A

Average Influent Organic Strength or BOD_5 Concentration in mg/l: N/A

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): N/A

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

N/A

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	0.90	300
Subdivision		

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
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	0.90	
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: 5

Total Suspended Solids, mg/l: 5

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 1

Dissolved Oxygen, mg/l: 4.0

Other: Click to enter text.

B. Interim II Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 5

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 1

Dissolved Oxygen, mg/l: 4.0

Other: Click to enter text.

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 5

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 1

Dissolved Oxygen, mg/l: 4.0

Other: Click to enter text.

D. Disinfection Method

Identify the proposed method of disinfection.

☒ Chlorine: 1.0 mg/l after 20 minutes detention time at peak flow

Dechlorination process: sodium bisulfite

☐ 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: Attachment H

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.

N/A

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

See Attachment Q – Floodplain Map

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: N/A

If no, provide the approximate date you anticipate submitting your application to the Corps: N/A

B. Wind rose

Attach a wind rose: Attachment R

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)**: N/A

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)**: N/A

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

Attach a solids management plan to the application.

Attachment: Attachment I

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: N/A

Distance and direction to the intake: N/A

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

Attachment: N/A

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: N/A

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

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

N/A

C. Sea grasses

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

☐ Yes ☐ No

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

N/A

Section 3. Classified Segments (Instructions Page 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: Brushy Creek

A. Receiving water type

Identify the appropriate description of the receiving waters.

☒ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: Click 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.

Brushy 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.

Dry channel with small amount of water

Date and time of observation: 6/30/2025

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
☐ Urban runoff
☐ Upstream discharges
☒ Agricultural runoff
☐ Septic tanks
☐ Other(s), specify: Click to enter text.

B. Waterbody uses

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

☒ Livestock watering
☐ Contact recreation
☐ Irrigation withdrawal
☐ Non-contact recreation
☐ Fishing
☐ Navigation
☐ Domestic water supply
☐ Industrial water supply
☐ Park activities
☐ 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

ATTACHMENT H

SUPPLEMENTAL TECHNICAL REPORT

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

SUPPLEMENTAL TECHNICAL REPORT

FOR THE WASTEWATER TREATMENT PLANT

WATER QUALITY MAJOR AMENDMENT TPDES PERMIT APPLICATION

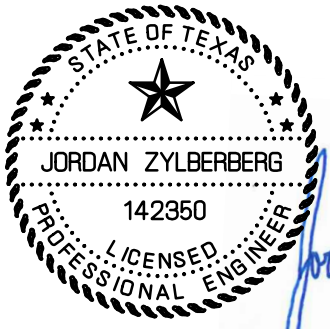
FOR

LB SIMPSON, LLC

SIMPSON WASTEWATER TREATMENT PLANT

IN

HAYS COUNTY, TEXAS



7/1/2025

JULY 2025

QE Job No. 29789-0002-01

QUIDDITY

Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100

I. INTRODUCTION

The purpose of this report is to provide additional information pertaining to items in the Domestic Administrative Report and the Domestic Technical Report for the permit application to the Simpson Wastewater Treatment Plant in Hays County. The proposed facility will be constructed in three phases, Phase I to treat 0.20 million gallons per day (MGD), Phase II to treat 0.40 MGD, and Phase III to treat 0.90 MGD.

II. LOCATION INFORMATION

Please see the Supplemental Permit Information Form (SPIF) of the Domestic Admin. Report 1.1 for specific location information. The proposed facility will be located approximately 1.6 miles northwest of the intersection of Farm-to-Market Road 21 and Rohde Road in Hays County, Texas 78640. A USGS Map with the required site information is provided as Attachment C. The discharge flows to Brushy Creek, thence to SCS Site 14 Reservoir, thence to Brushy Creek, thence to Plum Creek in Segment No. 1810 of the Guadalupe River Basin.

III. TREATMENT UNITS

(For Section 2 of Technical Report 1.0)

Interim Phase I of the proposed facility will consist of package WWTP facilities constructed with a design flow of 0.20 MGD. Interim Phase II will consist of the addition of a second package plant treatment train to increase the design flow to 0.40 MGD. The Final Phase of the proposed facility will include the construction of a permanent plant with a design flow of 0.90 MGD. A detailed description of the treatment process is presented below:

Interim Phases I and II of the proposed plant will consist of package plant facilities that will be designed and constructed to treat 0.20 MGD each and operate as a suspended growth activated sludge process in the single-stage nitrification mode with tertiary filtration and chemical phosphorus removal. Interim Phases I and II will share one (1) manual bar screen with an overflow weir, an effluent pump station, and an onsite diesel generator and fuel tank. The shared structures will be constructed during Phase I construction. In addition to the shared treatment/WWTP units, each facility will include two (2) aeration basins with coarse bubble aeration; one (1) secondary clarifier; two (2) tertiary filter basins; one (1) chlorine contact basin; a sodium hypochlorite disinfection system; an aluminum sulfate phosphorus removal system; two (2) sludge holding tanks; and three (3) multi-stage centrifugal blowers.

The Final Phase of the proposed WWTP will consist of permanent facilities that will be designed and constructed to treat 0.90 MGD and operate as a suspended growth activated sludge process in the single-stage nitrification mode with tertiary filtration and chemical phosphorus removal. The facilities will include an elevated concrete headworks containing one (1) mechanical screen and manual bar screen, overflow bypass and flow splitting weirs to feed two (2) separate, independent treatment trains. Two (2) 0.45 MGD trains will be built in Phase III. The proposed trains will consist of two (2) aeration basins with a screened influent mixing box; two (2) circular clarifiers; two (2) tertiary filters; two (2) chlorine contact basins with a chlorine mixing channel, post-aeration channel, and flow measurement/dechlorination channel; two (2) aerobic digesters; five (5) multistage centrifugal blowers; one (1) generator, one (1) non-potable water system; an aluminum sulfate phosphorus removal system; chemical disinfection feed systems for chlorination and dichlorination; and an effluent pump station.

IV. DESIGN CALCULATIONS AND FEATURES

(For Section 2 of Technical Report 1.0 & Section 4 of Technical Report 1.1)

Design calculations are provided as part of this report on the following pages for all phases of construction.

The proposed facilities will be equipped with design features to prevent overflows or bypassing of untreated wastewater. A backup diesel generator will be installed onsite with an automatic transfer switch to provide power to essential equipment in the event of a main power failure. The entire facility will have an automatic telephone dialer that notifies the operator of pump failures, main power failures, and high basin levels. The onsite effluent pump station will maintain a redundant pump to protect against overflows in the event of a pump failure.

INTERIM PHASE I – 0.20 MGD

I. SCOPE

Interim Phase I of the plant will consist of facilities that are designed and constructed to treat 0.20 MGD and operate as a suspended growth activated sludge process in a single-stage nitrification mode with tertiary filtration and chemical phosphorus removal. Construction includes one (1) manual bar screen, two (2) aeration basins, one (1) clarifier, two (2) sludge holding tanks, two (2) tertiary filter basins, one (1) chlorine contact basin, one (1) effluent pump station with two (2) submersible centrifugal pumps, three (3) centrifugal blowers, a non-potable water system, a phosphorus removal system, and a chlorine disinfection system.

II. PROPOSED WASTEWATER TREATMENT PLANT DESIGN

A. DESIGN CRITERIA

1. Proposed Effluent Limits.

   a. BOD_5 = 5 mg/l (daily average)

   b. TSS = 5 mg/l (daily average)

   c. NH_3-N = 2 mg/l (daily average)

   d. TP = 1 mg/L (daily average)

   e. *E. coli* = 126 colonies per 100 ml (daily average)

   f. DO = 4 mg/l (weekly grab)

2. Process Criteria. The process criteria are taken from 30 TAC §217, Design Criteria for Domestic Wastewater Systems.

   a. Maximum Aeration Basin Organic Loading
   (lb BOD_5/day/1,000 ft^3) = 35

b. Maximum Clarifier Surface Loading at Peak Flow (gal/day/ft^2) = 1,200

c. Minimum Clarifier Detention Time (hours) = 1.8

d. Maximum Clarifier Weir Loading at Peak Flow (gal/day/ft) = 20,000

e. Minimum Chlorine Contact Detention Time at Peak Flow (minutes) = 20

f. Minimum Filter Backwash Flux Rate (gpm/ft^2) = 6.0

g. Maximum Filtration Rate at Peak Flow (gpm/ft^2) = 6.5

B. PROPOSED TREATMENT FACILITIES

1. Flow.

a. Average (Design) = 1.0Q = 200,000 gpd = 139 gpm

b. Peak (2-hour) = 4.0Q = 800,000 gpd = 556 gpm

2. Influent Composition.

The following influent wastewater compositions are based on empirical pollutant loadings from similar facilities.

BOD_5 = 300 mg/L

TSS = 250 mg/L

NH_3-N = 75 mg/L

TP = 10 mg/L

3. Organic Loadings.

BOD_5 = (0.20 MGD)(8.34)(300 mg/L) = 500 lbs BOD_5/day

TSS = (0.20 MGD)(8.34)(250 mg/L) = 417 lbs TSS/day

NH_3-N = (0.20 MGD)(8.34)(75 mg/L) = 125 lbs NH_3-N/day

TP = (0.20 MGD)(8.34)(10 mg/L) = 17 lbs TP/day

4. Process Equipment.

a. Headworks Screening. Interim Phase I will include the construction of a manual bar screen capable of screening a peak flow of 0.80 MGD.

b. Aeration Basin. Interim Phase I will include the construction of two (2) aeration basins, sized at 12′ wide by 52′ long. The average side water depth is assumed to be 11.47′.

i. Total Required Volume

Required Volume Using Traditional Design Method (30 TAC §217 Guidelines)
(0.20 MGD)(8.34)(300 mg/L)/(35 lb BOD_5/1,000 ft^3) = 14,297 ft^3

ii. Proposed Volume
(2)(12 ft)(52 ft)(11.47 ft) = 14,315 ft^3

iii. Actual Organic Loading
(500 lb BOD_5/day)/(14,315 ft^3/1,000 ft^3) = 35.0 lb BOD_5/day/1,000 ft^3

c. Secondary Clarifier. Interim Phase I will consist of one (1) proposed 40′ diameter clarifier with a side water depth of 10′.

i. Required Surface Area at Peak Flow
(800,000 gpd)/(1,200 gpd/ft^2) = 667 ft^2

ii. Proposed Surface Area
(π/4)(40 ft)^2 = 1,257 ft^2

iii. Surface Loading

1. At Design Flow
(200,000 gpd)/(1,257 ft^2) = 159 gpd/ft^2

2. At Peak Flow
(800,000 gpd)/(1,257 ft^2) = 637 gpd/ft^2

iv. Proposed Clarifier Weir Length
(Includes Launder Allowance)
(π)(40 ft – 2 ft) = 119 ft

v. Proposed Weir Loading at Peak Flow
(800,000 gpd)/(119 ft) = 6,701 gpd/ft

vi. Proposed Clarifier Side Water Depth (to top of grout) = 10 ft

vii. Hydraulic Detention Times at Peak Flow

Proposed Hydraulic Detention Time at Peak Flow
$(1{,}257\ ft^2)(10\ ft)(7.48\ gal/ft^3)/(556\ gal/min)$ = 169 minutes
= 2.82 hours

d. Sludge Holding Tanks. Interim Phase I will include the construction of two (2) sludge holding tanks sized at 12' wide by 52' long. The average water depth is assumed to be 11.47'. The solids production below includes not only solids production as a ratio of influent BOD_5, but also includes additional sludge production due to aluminum sulfate dosing.

Assume 1.227 pounds of solids produced per pound of BOD_5 applied; solids are 70% volatile organics; 30% of the volatiles are destroyed during digestion; 15,000 mg/l MLSS concentration in the sludge holding tanks on average.

i Sludge Holding Tank Sizing

1. Solids Production
$(500\ lb\ BOD_5/day)*(1.227\ lb\ solids/1\ lb\ BOD_5)$ = 614 lb solids/day

2. Digested Solids Production
$(614\ lb\ solid/day)(1-(0.3)(0.7))$ = 485 lb solids/day

3. Average Solids in Sludge Holding Tank
(614 lb solids/day + 485 lb solids/day)/2 = 550 lb solids/day

ii. Sludge Holding Tanks Volume
$(2)(12\ ft)(52\ ft)(11.47\ ft)$ = $14{,}315\ ft^3$

iii. Retention Time
$((14{,}315\ ft^3)(7.48))/(10^6)/(550\ lb\ solids/day)/(8.34 *15{,}000\ mg/L)$
= 24.4 days

e. Chlorine Contact Basin. Interim Phase I will include the construction of one (1) chlorine contact basin with a width of 12' and length of 33.36'. The water depth at peak 2-hour flow is assumed to be 7.00'.

i. Required Volume at Peak Flow
$(556\ gpm)(20\ min)/(7.48)$ = $1{,}485\ ft^3$

ii. Proposed Volume
$(12\ ft)(33.36\ ft)(7.00\ ft)$ = $2{,}802\ ft^3$

iii. Actual Detention Time at Peak Flow
$(2{,}802\ ft^3)(7.48)/(556\ gpm)$ = 37.7 minutes

f. Air Requirements.

i. Aeration Basins

$$\frac{(1.2)(300\ mg/l\ BOD_5) + (4.3)(75\ mg/l\ NH_3\text{-}N)}{(300\ mg/l\ BOD_5)} = 2.3\ lb\ O_2/lb\ BOD_5$$

Minimum Required Air Required for Treatment
(30 TAC §217.155, Table F.3) = 2.2 lb O_2/lb BOD_5

$$\frac{(500\ lb\ BOD_5/day)(2.3\ lb\ O_2/lb\ BOD_5)(1.428^{**})}{(0.0507^{*})(0.23)(0.075)(1440)} = 1,291\ scfm$$

d * TCEQ Wastewater Oxygen Transfer Efficiency for Coarse Bubble (0.65%/ft. x (12) ft of submergence x 0.65).
** TCEQ Chapter 217 Table F.5 Submergence Correction Factor for 10.47-feet (10.47') of submergence.

ii. Sludge Holding Tank
(14,315 ft^3)(30 scfm/1000 ft^3) = 429 scfm

iii. Chlorine Contact Basin
(2,802ft^3)(20 scfm/1000 ft^3) = 56 scfm

iv. Air Lifts (RAS, Scum, WAS, Sludge Transfer, and Decant Air Lifts)
40 scfm+12 scfm+30 scfm+20 scfm+20 scfm
= 122 scfm

v. Total Air Requirements = 1,898 scfm

g. Blower Capacities. Interim Phase I will include the construction of three (3) centrifugal blowers. The capacity is calculated at 6 psig discharge pressure at 100°F, 80% RH, and 14.64 psia inlet conditions.

i. Proposed Blower Capacity
(3)(1,000 scfm) = 3,000 scfm

ii. Firm Blower Capacity with Largest Unit out of Service
(2)(1,000 scfm) = 2,000 scfm

h. Chemical Equipment. Interim Phase I will include one (1) sodium hypochlorite (bleach) feed system and one (1) aluminum sulfate (alum) feed system. The following calculations are for 0.20 MGD average daily flow.

i. Dosage Capacity – Calculations are for 10% trade strength bleach (NaOCl) with a specific gravity of 1.159, 9% available chlorine by weight, and a density of 9.7 pounds per gallon.

1. Chlorine Dosage Rate = 6 mg/l

2. NaOCl Solution Feed Rate at Average Daily Flow

$$\frac{(6\ mg/l)(8.34)(0.20\ MGD)}{((10\%)/1.134)(9.46\ lbs/gal)} = 12\ gal/day$$

3. NaOCl Solution Feed Rate at Peak Daily Flow

$$\frac{(6\ mg/l)(8.34)(0.80\ MGD)}{((10\%)/1.134)(9.46\ lbs/gal)} = 48\ gal/day$$

ii. Maximum Bleach Storage
(Covered Storage)
(15 days)(12 gal/day) = 180 gal

iii. Proposed Bleach Storage
(1)(180 gal) = 150 gal

One (1) 150-gallon bulk storage tank will be provided.

ii. Alum Dosage Capacity

1. Influent Phosphorus Mass at Average Daily Flow
(0.20 MGD)(10 mg/L)(8.34) = 16.68 lbs/day

2. Influent Phosphorus Mass at Peak Flow
(0.80 MGD)(10 mg/L)(8.34) = 66.72 lbs/day

3. Alum Volume Dosage Rate at Average Daily Flow

$$\frac{(16.68\ lbs/day)(2.0\ mol\ Al/mol\ Alum)(26.98\ lbs\ Al/lb\text{-}mol\ Al)(594.40\ lbs\ Alum/mol\ Alum)}{(30.97\ lbs\ P/lb\text{-}mol\ P)(2.0\ mol\ Al/\ mol\ Alum)(26.98\ lbs\ Al/lb\text{-}mol\ Al)(48\%\ Alum\ Solution)(11.09\ lbs\ Alum/gal\ alum)} = 60.13\ gal/day$$

4. Alum Volume Dosage Rate at Average Daily Flow

$$\frac{(66.72\ lbs/day)(2.0\ mol\ Al/mol\ Alum)(26.98\ lbs\ Al/lb\text{-}mol\ Al)(594.40\ lbs\ Alum/mol\ Alum)}{(30.97\ lbs\ P/lb\text{-}mol\ P)(2.0\ mol\ Al/\ mol\ Alum)(26.98\ lbs\ Al/lb\text{-}mol\ Al)(48\%\ Alum\ Solution)(11.09\ lbs\ Alum/gal\ alum)} = 240.56\ gal/day$$

5. Minimum Volume Required
(60.12 gal/day)(14 days) = 842 gal

6. Proposed Alum Storage = 900 gal

i. Tertiary Filter. The proposed facility includes of two (2) proposed tertiary filter basins with cloth media filter disks.

i. Maximum Submerged Surface Area at Peak Flow
(556 gpm)/(6.5 gpm ft^2) = 85 ft^2

ii. Proposed Submerged Surface Area = 85 ft^2

iii. Actual Filtration Rate
(556 gpm)/(85 ft^2) = 6.5 gpm/ft^2

INTERIM PHASE II – 0.40 MGD

I. SCOPE

Interim Phase II will consist of facilities that are designed and constructed to treat 0.40 MGD and operate as a suspended growth activated sludge process in a single-stage nitrification mode with tertiary filtration and chemical phosphorus removal. This includes two (2) existing aeration basins, one (1) existing clarifier, two (2) existing sludge holding tanks, two (2) existing tertiary filter basins, one (1) existing chlorine contact basin, one (1) existing effluent pump station, three (3) existing centrifugal blowers, an existing non-potable water system, an existing phosphorus removal system, and an existing chlorine disinfection system. Interim Phase II construction includes one (1) manual bar screen with flow splitting weirs sized for the expanded flow, two (2) aeration basins, one (1) clarifier, two (2) sludge holding tanks, two (2) tertiary filter basins, one (1) chlorine contact basin three (3) centrifugal blowers, a non-potable water system, a phosphorus removal system, and a chlorine disinfection system.

II. PROPOSED WASTEWATER TREATMENT PLANT DESIGN

A. DESIGN CRITERIA

1. Proposed Effluent Limits.

   a. BOD_5 = 5 mg/l (daily average)

   b. TSS = 5 mg/l (daily average)

   c. NH_3-N = 2 mg/l (daily average)

   d. TP = 1 mg/L (daily average)

   e. *E. coli* = 126 colonies per 100 ml (daily average)

   f. DO = 4 mg/l (weekly grab)

2. Process Criteria. The process criteria are taken from 30 TAC §217, Design Criteria for Domestic Wastewater Systems.

   a. Maximum Aeration Basin Organic Loading ($lb\ BOD_5/day/1{,}000\ ft^3$) = 35

   b. Maximum Clarifier Surface Loading at Peak Flow ($gal/day/ft^2$) = 1,200

   c. Minimum Clarifier Detention Time (hours) = 1.8

   d. Maximum Clarifier Weir Loading at Peak Flow (gal/day/ft) = 20,000

   e. Minimum Chlorine Contact Detention Time at Peak Flow (minutes) = 20

f.	Minimum Filter Backwash Flux Rate (gpm/ft^2)	=	6.0
j.	Maximum Filtration Rate at Peak Flow (gpm/ft^2)	=	6.5

B. PROPOSED TREATMENT FACILITIES

1. Flow.

a.	Average (Design)	=	1.0Q	=	400,000 gpd	= 278 gpm
b.	Peak (2-hour)	=	4.0Q	=	1,600,000 gpd	= 1,111 gpm

2. Influent Composition.

The following influent wastewater compositions are based on empirical pollutant loadings from similar facilities.

BOD_5	=	300 mg/L
TSS	=	250 mg/L
NH_3-N	=	75 mg/L
TP	=	10 mg/L

3. Organic Loadings.

BOD_5	=	(0.40 MGD)(8.34)(300 mg/L)	= 1,001 lbs BOD_5/day
TSS	=	(0.40 MGD)(8.34)(250 mg/L)	= 834 lbs TSS/day
NH_3-N	=	(0.40 MGD)(8.34)(75 mg/L)	= 250 lbs NH_3-N/day
TP	=	(0.40 MGD)(8.34)(10 mg/L)	= 33 lbs TP/day

4. Process Equipment.

a. Headworks Screening. Interim Phase II will include the construction of a manual bar screen capable of screening a 2-hour peak flow of 1.60 MGD with flow splitting.

b. Aeration Basin. Interim Phase II of construction will consist of two (2) additional aeration basins of the same size as the existing aeration basins. The average side water depth is assumed to be 11.47'.

i. Total Required Volume

Required Volume Using Traditional Design Method (30 TAC §217 Guidelines)
(0.40 MGD)(8.34)(300 mg/L)/(35 lb BOD_5/1,000 ft^3)
= 28,594 ft^3

ii. Proposed Volume

1. Existing Volume – Interim Phase I
(2)(12 ft)(52 ft)(11.47 ft) = 14,315 ft^3

2. Proposed Volume – Interim Phase II
(2)(12 ft)(52 ft)(11.47 ft) = 14,315 ft^3

3. Total Volume = 28,630 ft^3

iii. Actual Organic Loading
(1,001 lb BOD_5/day)/(28,630 ft^3/1,000 ft^3) = 35.0 lb BOD_5/ day/1,000 ft^3

c. Secondary Clarifier. Interim Phase II will consist of one (1) proposed 40' diameter clarifier with a side water depth of 10' in addition to the one (1) existing clarifier.

i. Required Surface Area at Peak Flow
(1,600,000 gpd)/(1,200 gpd/ft^2) = 1,333 ft^2

ii. Proposed Surface Area

1. Existing Surface Area – Interim Phase I
(π/4)(40 ft)^2 = 1,257 ft^2

2. Proposed Surface Area – Interim Phase II
(π/4)(40 ft)^2 = 1,257 ft^2

3. Total Surface Area = 2,514 ft^2

iii. Surface Loading

1. At Design Flow
(400,000 gpd)/(2,514 ft^2) = 159 gpd/ft^2

2. At Peak Flow
(1,600,000 gpd)/(2,514 ft^2) = 636 gpd/ft^2

iv. Proposed Clarifier Weir Length

1. Existing Weir Length– Interim Phase I
(Includes Launder Allowance)

(π)(40 ft – 2 ft) = 119 ft

2. Proposed Weir Length– Interim Phase II (Includes Launder Allowance)

(π)(40 ft – 2 ft) = 119 ft

3. Total Weir Length = 238 ft

v. Weir Loading
(1,600,000 gpd)/(238 ft) = 3,351 gpd/ft

vi. Proposed Clarifier Side Water Depth (to top of grout) = 10 ft

vii. Hydraulic Detention Times at Peak Flow

Existing Hydraulic Detention Time at Peak Flow
($2{,}514\ ft^2$)(10 ft)(7.48 gal/ft^3)/(1,111 gal/min) = 169 minutes
= 2.82 hours

d. Sludge Holding Tanks. Interim Phase II will include the construction of two (2) sludge holding tanks sized at 12' wide by 52' long to match the existing basins. The average water depth is assumed to be 11.47'. The solids production below includes not only solids production as a ratio of influent BOD_5, but also includes additional sludge production due to aluminum sulfate dosing.

Assume 1.227 pounds of solids produced per pound of BOD_5 applied; solids are 70% volatile organics; 30% of the volatiles are destroyed during digestion; 15,000 mg/l MLSS concentration in the sludge holding tanks on average.

i Sludge Holding Tank Sizing

1. Solids Production
(1,001 lb BOD_5/day)*(1.227 lb solids/1 lb BOD_5)
= 1,228 lb solids/day

2. Digested Solids Production
(1,228 lb solid/day)(1-(0.3)(0.7)) = 970 lb solids/day

3. Average Solids in Sludge Holding Tanks
(1,228 lb solids/day + 970 lb solids/day)/2 = 1,100 lb solids/day

ii. Sludge Holding Tank Volume

1. Existing Volume – Interim Phase I
(2)(12 ft)(52 ft)(11.47 ft) = 14,315 ft^3

2. Proposed Volume – Interim Phase II
(2)(12 ft)(52 ft)(11.47 ft) = 14,315 ft^3

3. Total Volume = 28,630 ft^3

iii. Retention Time
((28,630 ft^3)(7.48))/(10^6)/(1,100 lb solids/day)/(8.34 *15,000 mg/L)
= 24.4 days

e. Chlorine Contact Basin. Interim Phase II will include the construction of one (1) additional chlorine contact basin with a width of 12' and length of 33.36' to match the existing basin. The maximum water depth is assumed to be 7.00'.

i. Required Volume at Peak Flow
(1,111 gpm)(20 min)/(7.48) = 2,971 ft^3

ii. Existing Volume – Interim Phase I
(12 ft)(33.36 ft)(7 ft) = 2,802 ft^3

iii. Proposed Volume – Interim Phase II
(12 ft)(33.36 ft)(7 ft) = 2,802 ft^3

iv. Actual Detention Time at Peak Flow
(2)(2,802 ft^3)(7.48)/(1,111 gpm) = 37.7 minutes

f. Air Requirements.

i. Aeration Basin

Calculated Air Required for Treatment

$$\frac{(1.2)(300\ mg/l\ BOD_5) + (4.3)(75\ mg/l\ NH_3\text{-}N)}{(300\ mg/l\ BOD_5)} = 2.3 \text{ lb } O_2/\text{lb } BOD_5$$

Minimum Required Air Required for Treatment
(30 TAC §217.155, Table F.3) = 2.2 lb O_2/lb BOD_5

$$\frac{(1{,}001\ lb\ BOD_5/day)(2.2\ lb\ O_2/lb\ BOD_5)(1.428^{**})}{(0.0507^{*})(0.23)(0.075)(1440)} = 2{,}582 \text{ scfm}$$

* TCEQ Wastewater Oxygen Transfer Efficiency for Coarse Bubble (0.65%/ft. x (12) ft of submergence x 0.65).
** TCEQ Chapter 217 Table F.5 Submergence Correction Factor for 10.47-feet (10.47') of submergence.

ii. Sludge Holding Tank
(28,630 ft^3)(30 scfm/1000 ft^3) = 859 scfm

iii. Chlorine Contact Basin
(5,604 ft^3)(20 scfm/1000 ft^3) = 112 scfm

iv. Air Lifts (RAS, Scum, WAS, Sludge Transfer, Decant Air Lifts, Phase I Air Lifts)
40 scfm+12 scfm+30 scfm+20 scfm+20 scfm+122 scfm
= 244 scfm

v. Total Air Requirements = 3,797 scfm

g. Blower Capacities. Interim Phase II will include the construction of three (3) centrifugal blowers. The capacity is calculated at 6.0 psig discharge pressure at 100°F, 80% RH, and 14.64 psia inlet conditions.

i. Existing Blower Capacity
(3)(1,000 scfm) = 3,000 scfm

ii. Proposed Blower Capacity
(2)(1,000 scfm) = 2,000 scfm

iii. Total Firm Blower Capacity with Largest Unit out of Service
(2)(1,000 scfm) = 4,000 scfm

h. Chemical Equipment. Interim Phase II will include one (1) sodium hypochlorite (bleach) feed system and one (1) aluminum sulfate (alum) feed system. The following calculations are for 0.40 MGD average daily flow.

i. Dosage Capacity – Calculations are for 10% trade strength bleach (NaOCl) with a specific gravity of 1.159, 9% available chlorine by weight, and a density of 9.7 pounds per gallon.

1. Chlorine Dosage Rate = 6 mg/l

2. NaOCl Solution Feed Rate at Average Daily Flow
$$\frac{(6\ mg/l)(8.34)(0.40\ MGD)}{((10\%)/1.134)(9.46\ lbs/gal)} = 23.4\ gal/day$$

3. NaOCl Solution Feed Rate at Peak Daily Flow
$$\frac{(6\ mg/l)(8.34)(1.60\ MGD)}{((10\%)/1.134)(9.46\ lbs/gal)} = 93.6\ gal/day$$

ii. Maximum Bleach Storage
(Covered Storage)
(15 days)(23.4 gal/day) = 351 gal

iii. Existing Bleach Storage
(1)(150 gal) = 150 gal

iv. Proposed Bleach Storage
(1)(150 gal) = 150 gal

v. Total Bleach Storage
(2)(150 gal) = 300 gal

One (1) 150-gallon bulk storage tank will be provided in addition to the existing 150-gallon bulk storage tank from Interim Phase I.

ii. Alum Dosage Capacity

1. Influent Phosphorus Mass at Average Daily Flow
(0.40 MGD)(10 mg/L)(8.34) = 33.36 lbs/day

2. Influent Phosphorus Mass at Peak Flow
(1.6 MGD)(10 mg/L)(8.34) = 133.44 lbs/day

3. Alum Volume Dosage Rate at Average Daily Flow
$$\frac{(33.36\ \text{lbs/day})(2.0\ \text{mol Al/mol Alum})(26.98\ \text{lbs Al/lb-mol Al})(594.40\ \text{lbs Alum/mol Alum})}{(30.97\ \text{lbs P/lb-mol P})(2.0\ \text{mol Al/ mol Alum})(26.98\ \text{lbs Al/lb-mol Al})(48\%\ \text{Alum Solution})(11.09\ \text{lbs Alum/gal alum})}$$
= 120.28 gal/day

4. Alum Volume Dosage Rate at Average Daily Flow
$$\frac{(133.44\ \text{lbs/day})(2.0\ \text{mol Al/mol Alum})(26.98\ \text{lbs Al/lb-mol Al})(594.40\ \text{lbs Alum/mol Alum})}{(30.97\ \text{lbs P/lb-mol P})(2.0\ \text{mol Al/ mol Alum})(26.98\ \text{lbs Al/lb-mol Al})(48\%\ \text{Alum Solution})(11.09\ \text{lbs Alum/gal alum})}$$
= 481.12 gal/day

5. Minimum Volume Required
(120.26 gal/day)(14 days) = 1,684 gal

6. Existing Volume Provided = 900 gal

7. Proposed Volume Provided = 900 gal

8. Total Storage Provided = 1,800 gal

i. Tertiary Filter. Interim Phase II will include the construction of two (2) additional tertiary filter basins with cloth media filter disks.

ii. Maximum Submerged Surface Area at Peak Flow
(1,111 gpm)/(6.5 gpm ft^2) = 170 ft^2

ii. Existing Submerged Surface Area = 85 ft^2

ii. Proposed Submerged Surface Area = 85 ft^2

ii. Total Submerged Surface Area = 170 ft^2

iii. Actual Filtration Rate
(1,111 gpm)/(170 ft^2) = 6.5 gpm/ft^2

FINAL PHASE – 0.90 MGD

I. SCOPE

The Final Phase will consist of facilities that are designed and constructed to treat 0.90 MGD and operate as a suspended growth activated sludge process in a single-stage nitrification mode with tertiary filtration and chemical phosphorus removal. All existing structures from Interim Phase I and Interim Phase II will be demolished. Final Phase construction includes an elevated headworks with one (1) mechanical bar screen, one (1) manual bar screen, and a bypass channel, two (2) aeration basins, two (2) clarifiers, two (2) aerobic digesters, two (2) tertiary filter basins, two (2) chlorine contact basins, five (5) centrifugal blowers, an effluent pump station, a non-potable water system, a phosphorus removal system, and a chlorine disinfection system.

II. PROPOSED WASTEWATER TREATMENT PLANT DESIGN

A. DESIGN CRITERIA

1. Proposed Effluent Limits.

   a. BOD_5 = 5 mg/l (daily average)

   b. TSS = 5 mg/l (daily average)

   c. NH_3-N = 2 mg/l (daily average)

   d. TP = 1 mg/L (daily average)

   e. *E. coli* = 126 colonies per 100 ml (daily average)

   f. DO = 4 mg/l (weekly grab)

2. Process Criteria. The process criteria are taken from 30 TAC §217, Design Criteria for Domestic Wastewater Systems.

   a. Maximum Aeration Basin Organic Loading ($lb\ BOD_5/day/1{,}000\ ft^3$) = 35

   b. Maximum Clarifier Surface Loading at Peak Flow ($gal/day/ft^2$) = 1,200

   c. Minimum Clarifier Detention Time (hours) = 1.8

   d. Maximum Clarifier Weir Loading at Peak Flow (gal/day/ft) = 20,000

   e. Minimum Chlorine Contact Detention Time at Peak Flow (minutes) = 20

   f. Mean Cell Residence Time in Aerobic Digester*

	(days)	=	28*
g.	Minimum Air Required for Digester (scfm/1,000 ft^3)	=	20
h.	Minimum Filter Backwash Flux Rate (gpm/ft^2)	=	6.0
i.	Maximum Filtration Rate at Peak Flow (gpm/ft^2)	=	6.5

*28-day SRT utilized instead of a 40-day SRT for use of a multi-stage digester per EPA publication "Control of Pathogens and Vector Attraction in Sewage Sludge."

B. PROPOSED TREATMENT FACILITIES

1. Flow.

a.	Average (Design)	=	1.0Q	=	900,000 gpd	=	625 gpm
b.	Peak (2-hour)	=	4.0Q	=	3,600,000 gpd	=	2,500 gpm

2. Influent Composition.

The following influent wastewater compositions are based on empirical pollutant loadings from similar facilities.

BOD_5	=	350 mg/L
TSS	=	300 mg/L
NH_3-N	=	75 mg/L
TP	=	10 mg/L

3. Organic Loadings.

BOD_5	=	(0.90 MGD)(8.34)(350 mg/L)	=	2,627 lbs BOD_5/day
TSS	=	(0.90 MGD)(8.34)(300 mg/L)	=	2,252 lbs TSS/day
NH_3-N	=	(0.90 MGD)(8.34)(75 mg/L)	=	563 lbs NH_3-N/day
TP	=	(0.90 MGD)(8.34)(10 mg/L)	=	75 lbs TP/day

4. Process Equipment.

c. Headworks Screening. The Final Phase will include the construction of a headworks with one (1) mechanical bar screen, one (1) manual bar screen, and a bypass channel. The headworks will be capable of screening a peak flow of 3.6 MGD.

d. Aeration Basin. The Final Phase of construction will consist of two (2) aeration basins sized at 30' wide and 86' long. The average water depth is assumed to be 16'. The proposed volume of the rapid mix basin is 3,422 ft^3.

iv. Total Required Volume

Required Volume Using Traditional Design Method (30 TAC §217 Guidelines)
(0.90 MGD)(8.34)(350 mg/L)/(35 lb BOD_5/1,000 ft^3)
= 75,060 ft^3

v. Proposed Volume

1. Proposed Volume (minus rapid mix basin) – Final Phase
((2)(30 ft)(86 ft)(16 ft))-3,422 ft^3 = 79,138 ft^3

vi. Actual Organic Loading
(2,627 lb BOD_5/day)/(79,138 ft^3/1,000 ft^3) = 33.2 lb BOD_5/ day/1,000 ft^3

c. Secondary Clarifier. The Final Phase will consist of two (2) 44' diameter clarifiers with a side water depth of 12'.

i. Required Surface Area at Peak Flow
(3,600,000 gpd)/(1,200 gpd/ft^2) = 3,000 ft^2

ii. Proposed Surface Area

1. Proposed Surface Area – Final Phase
(2)(π/4)(44 ft)^2 = 3,041 ft^2

iii. Surface Loading

1. At Design Flow
(900,000 gpd)/(3,041 ft^2) = 296 gpd/ft^2

2. At Peak Flow
(3,600,000 gpd)/(3,041 ft^2) = 1,184 gpd/ft^2

iv. Proposed Clarifier Weir Length
(Includes Launder Allowance)
(2)(π)(44 ft – 5.5 ft) = 242 ft

v. Weir Loading
Proposed Weir Loading at Peak Flow
(3,600,000 gpd)/(242 ft) = 14,882 gpd/ft

vi. Proposed Clarifier Side Water Depth (to top of grout) = 12 ft

vii. Hydraulic Detention Times at Peak Flow

Existing Hydraulic Detention Time at Peak Flow
$(3{,}041\ ft^2)(12\ ft)(7.48\ gal/ft^3)/(2{,}500\ gal/min)$ = 109.2 minutes
= 1.82 hours

d. Aerobic Digesters. The Final Phase will include the construction of two (2) aerobic digesters sized at 30' wide by 86' long. The average water depth is assumed to be 17'. The solids production below includes not only solids production as a ratio of influent BOD_5, but also includes additional sludge production due to aluminum sulfate dosing.

Assume 1.227 pounds of solids produced per pound of BOD_5 applied; solids are 70% volatile organics; 30% of the volatiles are destroyed during digestion; 15,000 mg/l MLSS concentration in the digester on average.

i Digester Sizing

1. Solids Production
$(2{,}627\ lb\ BOD_5/day)*(1.227\ lb\ solids/1\ lb\ BOD_5)$
= 3,223 lb solids/day

2. Digested Solids Production
$(3{,}223\ lb\ solid/day)(1-(0.3)(0.7))$ = 2,547 lb solids/day

3. Average Solids in Digester
(3,223 lb solids/day + 2,547 lb solids/day)/2 = 2,885 lb solids/day

ii. Digester Volume

1. Proposed Volume – Final Phase
$(2)(30\ ft)(86\ ft)(17\ ft)$ = $87{,}720\ ft^3$

2. Solids Retention Time
$\underline{(87{,}720\ ft^3)(7.48\ gal/ft^3)(8.34\ lb/gal)(15{,}000\ mg/L)}$
$(2{,}885\ lb\ solids/day)*(10^6\ mg/L)$
= 28.5 days

e. Chlorine Contact Basin. The Final Phase will include the construction of two (2) chlorine contact basins with 8 contact channels, a chlorine mixing channel, post aeration channel, and flow measurement/dechlorination channel. Each contact channel has a width of 3' and length of 18'. The maximum water depth is assumed to be 10'.

i. Required Volume at Peak Flow
$(2{,}500\ gpm)(20\ min)/(7.48)$ = $6{,}684\ ft^3$

ii. Proposed Volume
$(2)(8)(3\ ft)(18\ ft)(10\ ft)$ = $8{,}640\ ft^3$

iii. Actual Detention Time at Peak Flow
$(8{,}640\ ft^3)(7.48)/(2{,}500\ gpm)$ = 25.9 minutes

f. Dechlorination Channel. The Final Phase will include the construction of one (1) dechlorination channel.

i. Required Volume at Peak Flow
(2,500 gpm)((20 seconds/60) mins)/(7.48) = 111 ft^3

ii. Proposed Volume
(8.75 ft)(6 ft)(6 ft) = 315 ft^3

iii. Actual Detention Time at Peak Flow
(315 ft^3)(7.48)(60 secs/min)/(2,500 gpm) = 56.5 seconds

g. Air Requirements.

i. Aeration Basin

Calculated Air Required for Treatment

$$\frac{(1.2)(300\ mg/l\ BOD_5) + (4.6)(75\ mg/l\ NH_3\text{-}N)}{(300\ mg/l\ BOD_5)} = 2.4 \quad lb\ O_2/lb\ BOD_5$$

Minimum Required Air Required for Treatment
(30 TAC §217.155, Table F.3) = 2.2 lb O_2/lb BOD_5

$$\frac{(2{,}627\ lb\ BOD_5/day)(2.4\ lb\ O_2/lb\ BOD_5)(0.910^{**})}{(0.108^{*})(0.23)(0.075)(1440)} = 2{,}139 \quad scfm$$

d * TCEQ Wastewater Oxygen Transfer Efficiency for Fine Bubble (2%/ft. x (12) ft of submergence x 0.45).
** TCEQ Chapter 217 Table F.5 Submergence Correction Factor for 12-feet (12') of submergence.

ii. Aerobic Digester
(87,720 ft^3)(20 scfm/1000 ft^3) = 1,754 scfm

iii. Chlorine Contact Basin
(8,640 ft^3)(20 scfm/1000 ft^3) = 173 scfm

iv. Rapid Mix Basin
(2,400 ft^3)(20 scfm/1000 ft^3) = 48 scfm

v. Post-Aeration Basin
(1,195 ft^3)(20 scfm/1000 ft^3) = 24 scfm

vi. RAS Boxes
(1,099 ft^3)(20 scfm/1000 ft^3) = 22 scfm

vii. WAS/SCUM Boxes
(1,860 ft^3)(20 scfm/1000 ft^3) = 37 scfm

viii. Air Lifts (RAS, Scum, WAS, Sludge Transfer, and Decant Air Lifts)
32 scfm+32 scfm+10 scfm+10 scfm+20 scfm+20 scfm
= 124 scfm

ix. Total Air Requirements = 4,321 scfm

h. Blower Capacities. The Final Phase will include the construction of five (5) centrifugal blowers. The capacity is calculated at 8.5 psig discharge pressure at 100°F, 80% RH, and 14.64 psia inlet conditions.

i. Proposed Blower Capacity
(5)(1,250 scfm) = 6,250 scfm

ii. Firm Blower Capacity with Largest Unit out of Service
(4)(1,250 scfm) = 5,000 scfm

i. Chemical Equipment. The Final Phase will include one (1) sodium hypochlorite (bleach) feed system and one (1) aluminum sulfate (alum) feed system. The following calculations are for 0.90 MGD average daily flow.

i. Chlorine Dosage Capacity – Calculations are for 10% trade strength bleach (NaOCl) with a specific gravity of 1.159, 9% available chlorine by weight, and a density of 9.7 pounds per gallon.

1. Chlorine Dosage Rate = 6 mg/l

2. NaOCl Solution Feed Rate at Average Daily Flow
$$\frac{(6\ mg/l)(8.34)(0.90\ MGD)}{((10\%)/1.134)(9.46\ lbs/gal)} = 54\ gal/day$$

3. NaOCl Solution Feed Rate at Peak Daily Flow
$$\frac{(6\ mg/l)(8.34)(3.60\ MGD)}{((10\%)/1.134)(9.46\ lbs/gal)} = 215.9\ gal/day$$

ii. Maximum Bleach Storage
(Covered Storage)
(15 days)(54 gal/day) = 810 gal

iii. Proposed Bleach Storage
(1)(800 gal) = 800 gal

One (1) 800-gallon bulk storage tank will be provided in the Final Phase.

ii. Alum Dosage Capacity

1. Influent Phosphorus Mass at Average Daily Flow
(0.90 0MGD)(10 mg/L)(8.34) = 75.06 lbs/day

2. Influent Phosphorus Mass at Peak Flow
(3.60 MGD)(10 mg/L)(8.34) = 300.24 lbs/day

3. Alum Volume Dosage Rate at Average Daily Flow

$$\frac{(75.06\ \text{lbs/day})(2.0\ \text{mol Al/mol Alum})(26.98\ \text{lbs Al/lb-mol Al})(594.40\ \text{lbs Alum/mol Alum})}{(30.97\ \text{lbs P/lb-mol P})(2.0\ \text{mol Al/ mol Alum})(26.98\ \text{lbs Al/lb-mol Al})(48\%\ \text{Alum Solution})(11.09\ \text{lbs Alum/gal alum})}$$

= 270.63 gal/day

4. Alum Volume Dosage Rate at Average Daily Flow

$$\frac{(300.24\ \text{lbs/day})(2.0\ \text{mol Al/mol Alum})(26.98\ \text{lbs Al/lb-mol Al})(594.40\ \text{lbs Alum/mol Alum})}{(30.97\ \text{lbs P/lb-mol P})(2.0\ \text{mol Al/ mol Alum})(26.98\ \text{lbs Al/lb-mol Al})(48\%\ \text{Alum Solution})(11.09\ \text{lbs Alum/gal alum})}$$

= 1082.51 gal/day

5. Minimum Volume Required
   (270.63 gal/day)(14 days) = 3,789 gal

6. Proposed Volume Provided = 4,000 gal

One (1) 4,000-gallon bulk storage tank will be provided in the Final Phase.

iii. Sodium Bisulfite Dosage Capacity - The calculations assume a 2.0 mg/L chlorine residual and a 38% trade strength of sulfur bisulfite.

1. Sodium Bisulfite Dosage Rate = 1.50 part $NaHSO_3$/part Cl

2. Sodium Bisulfite Dosage Rate at Peak Daily Flow
   (0.90 MGD)(2.0 mg/L)(1.50)(8.34) = 22.52 lbs/day

3. Sodium Bisulfite Dosage Rate at Average Daily Flow
   (3.60 MGD)(2.0 mg/L)(1.50)(8.34) = 90.07 lbs/day

4. Sodium Bisulfite Feed Rate at Average Daily Flow

$$\frac{(22.52\ \text{lbs/day})}{((38\%\ NaHSO_3)(8.34))\text{-}1} = 10.38\ \text{gal/day}$$

5. Sodium Bisulfite Feed Rate at Peak Daily Flow

$$\frac{(90.07\ \text{lbs/day})}{((38\%\ NaHSO_3)(8.34))\text{-}1} = 41.52\ \text{gal/day}$$

6. Minimum Volume Required
   (10.38 gal/day)(30 days) = 311 gal

7. Proposed Volume Provided = 400 gal

One (1) 400-gallon bulk storage tank will be provided in the Final Phase.

j. Tertiary Filters. The Final Phase will include the construction of two (2) tertiary filter basins with cloth media filter disks.

i.	Maximum Submerged Surface Area at Peak Flow (2,500 gpm)/(6.5 gpm ft^2)	=	385 ft^2
ii.	Proposed Submerged Surface Area	=	400 ft^2
iii.	Actual Filtration Rate (2,500 gpm)/(400 ft^2)	=	6.25 gpm/ft^2

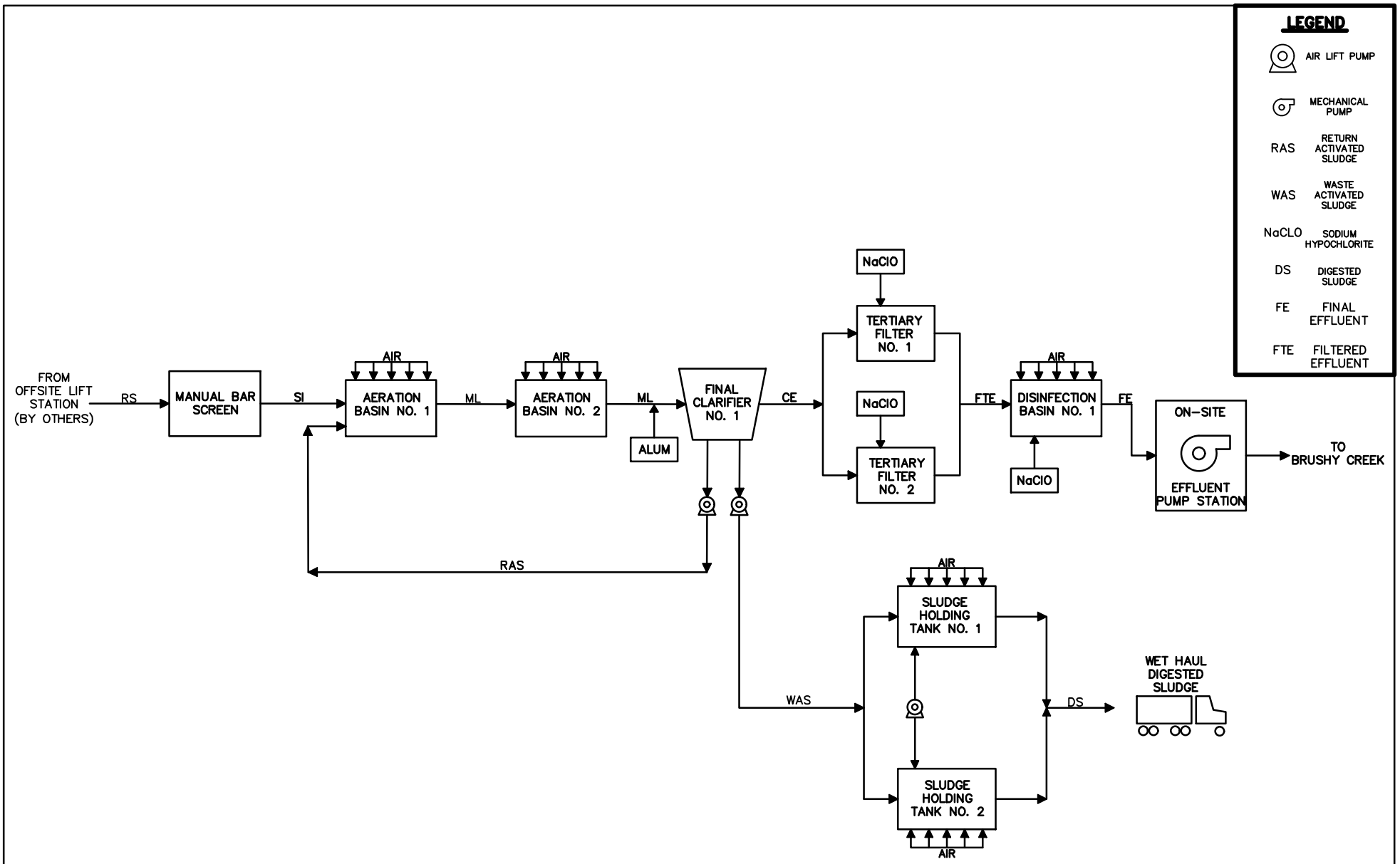
ATTACHMENT F

FLOW SCHEMATICS

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

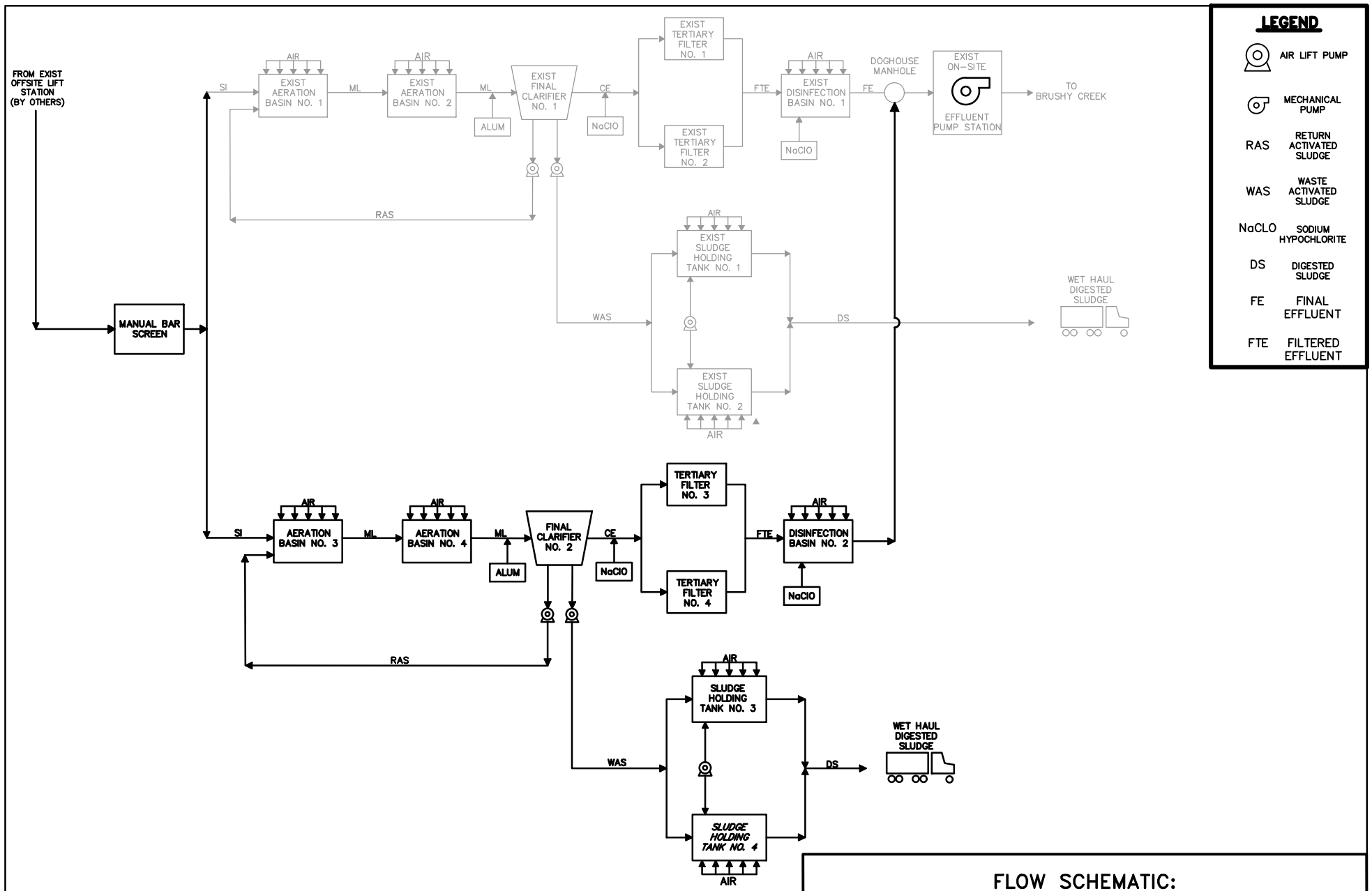
JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



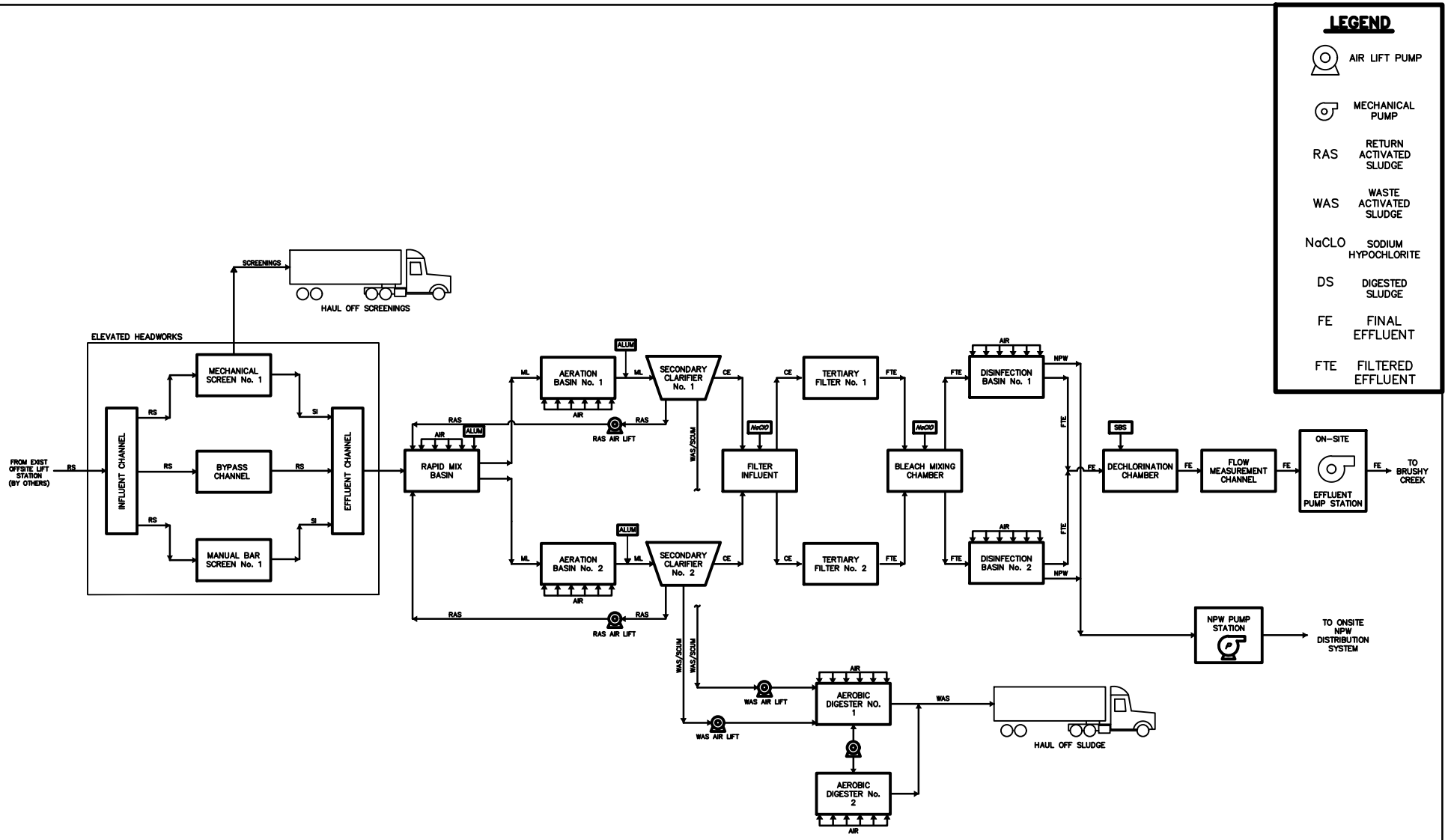
FLOW SCHEMATIC:
LB SIMPSON, LLC
SIMPSON WASTEWATER TREATMENT PLANT
INTERIM PHASE I – 0.20 MGD
PERMIT No. WQ0016236001
JUNE 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



FLOW SCHEMATIC:
LB SIMPSON, LLC
SIMPSON WASTEWATER TREATMENT PLANT
INTERIM PHASE II – 0.40 MGD
PERMIT No. WQ0016236001
JUNE 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 ● Bellaire, TX 77401 ● 713.777.5337



FLOW SCHEMATIC:
LB SIMPSON, LLC
SIMPSON WASTEWATER TREATMENT PLANT
FINAL PHASE III – 0.90 MGD
PERMIT No. WQ0016236001
JUNE 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

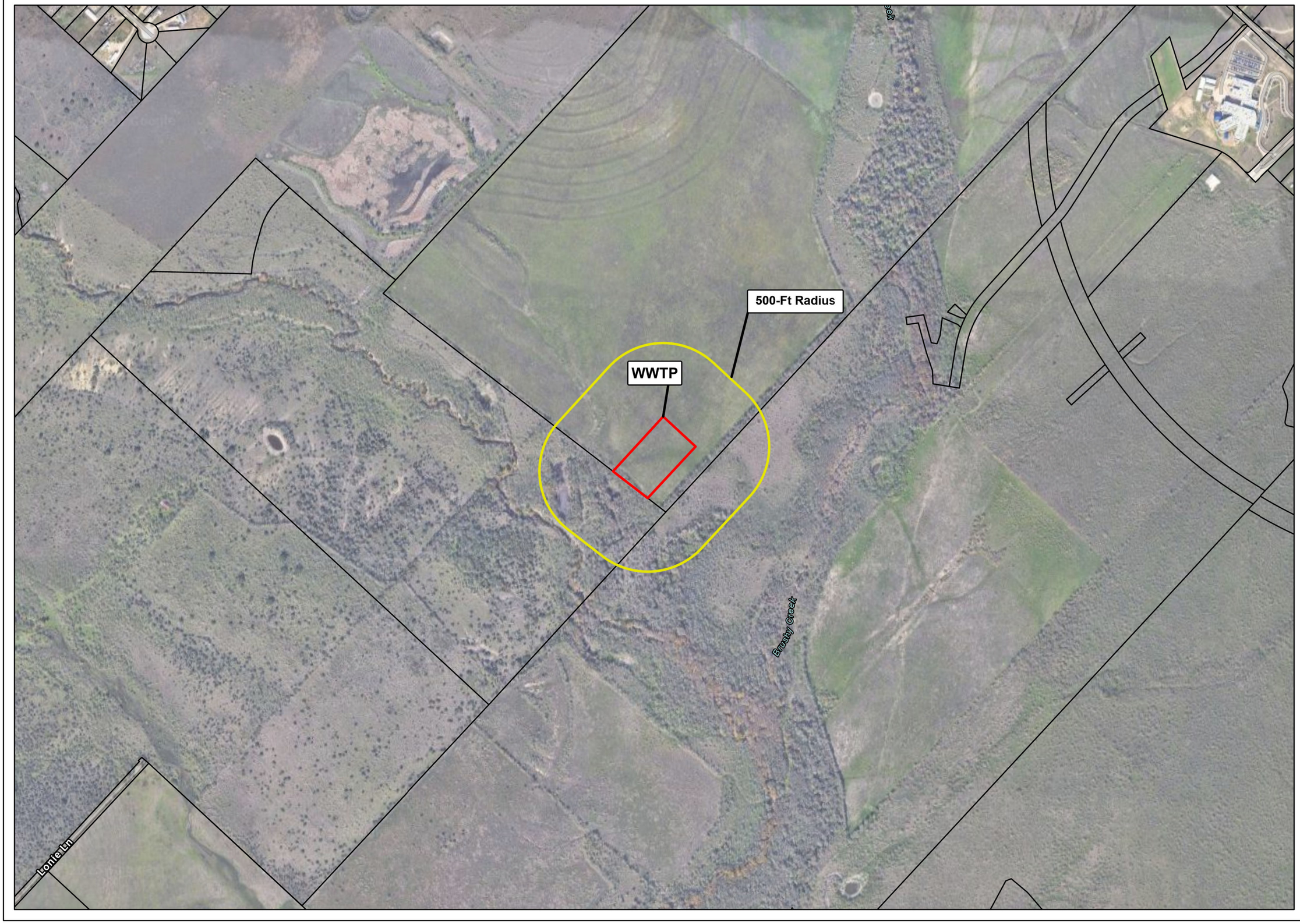
ATTACHMENT N

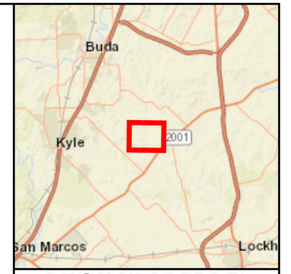
AREA WATER WELLS

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337





VICINITY MAP
1 INCH = 10 MILES

Legend

- Water Well
- 500-Ft Radius
- WWTP Boundary
- HCAD Parcels

No Water Wells found in a 1 miles radius

WATER WELLS MAP

SIMPSON TPDES
HAYS COUNTY, TEXAS

N W E S

0 600
1 INCH = 600 FEET
IMAGERY PROVIDED BY GOOGLE

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_Individuals\J_Nguyen\Simpson TPDES\Simpson TPDES.aprx Project Number: 20780-0002-01.001 Date: 6/17/2025 User Name: ahinkle

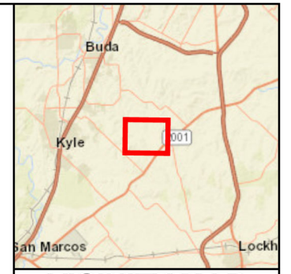
ATTACHMENT O

WETLANDS MAP

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



VICINITY MAP
1 INCH = 10 MILES

Legend

- WWTP Boundary
- HCAD Parcels

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/ Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

WETLANDS MAP

SIMPSON TPDES
HAYS COUNTY, TEXAS

N W E S

0 800
1 INCH = 800 FEET

IMAGERY PROVIDED BY GOOGLE

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_Individuals\1_Nguyen\Simpson TPDES\Simpson TPDES.aprx Project Number: 20769-0002-01.001 Date: 6/17/2025 User Name: alinkla

ATTACHMENT P

JUSTIFICATION

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

QUIDDITY

3100 Alvin Devane Blvd, Suite 150
Austin, Texas 78741
Tel: 512.441.9493
www.quiddity.com

JUSTIFICATION FOR MAJOR AMENDMENT
LB SIMPSON, LLC

The Simpson Wastewater Treatment Plant will serve a residential subdivision located just outside of the City of Niederwald, Texas. The current permit has flow phases of 0.10 million gallons per day (MGD), 0.20 MGD, and 0.30 MGD. This major amendment will increase the flow phases to 0.20 MGD, 0.40 MGD, and 0.90 MGD.

At build out, there will be 2,400 residential connections. For design purposes, the wastewater flow for residential and commercial connections is 250 gallons per day per connection.

Following is the connection and flow projection to complete build out:

Month / yr	**Single family residential**	
	connections	**flow (gpd)**
Jan-29	10	2,500
Jan-30	170	42,500
Jan-31	450	112,500
Jan-32	810	202,500
Jan-33	1,170	292,500
Jan-34	1,530	382,500
Jan-35	1,890	472,500
Jan-36	2,250	562,500
Jun-36	2,400	600,000

Following is the construction schedule for the current and final plant phases:

Proposed flow	Interim I	Interim II	Final
Design Flow (MGD)	0.20	0.40	0.90
2-Hr Peak Flow (MGD)	0.80	1.60	3.60
Date construction to commence	1/2028	6/2030	12/2031
Date construction completed and discharge begins	1/2029	6/2031	12/2033

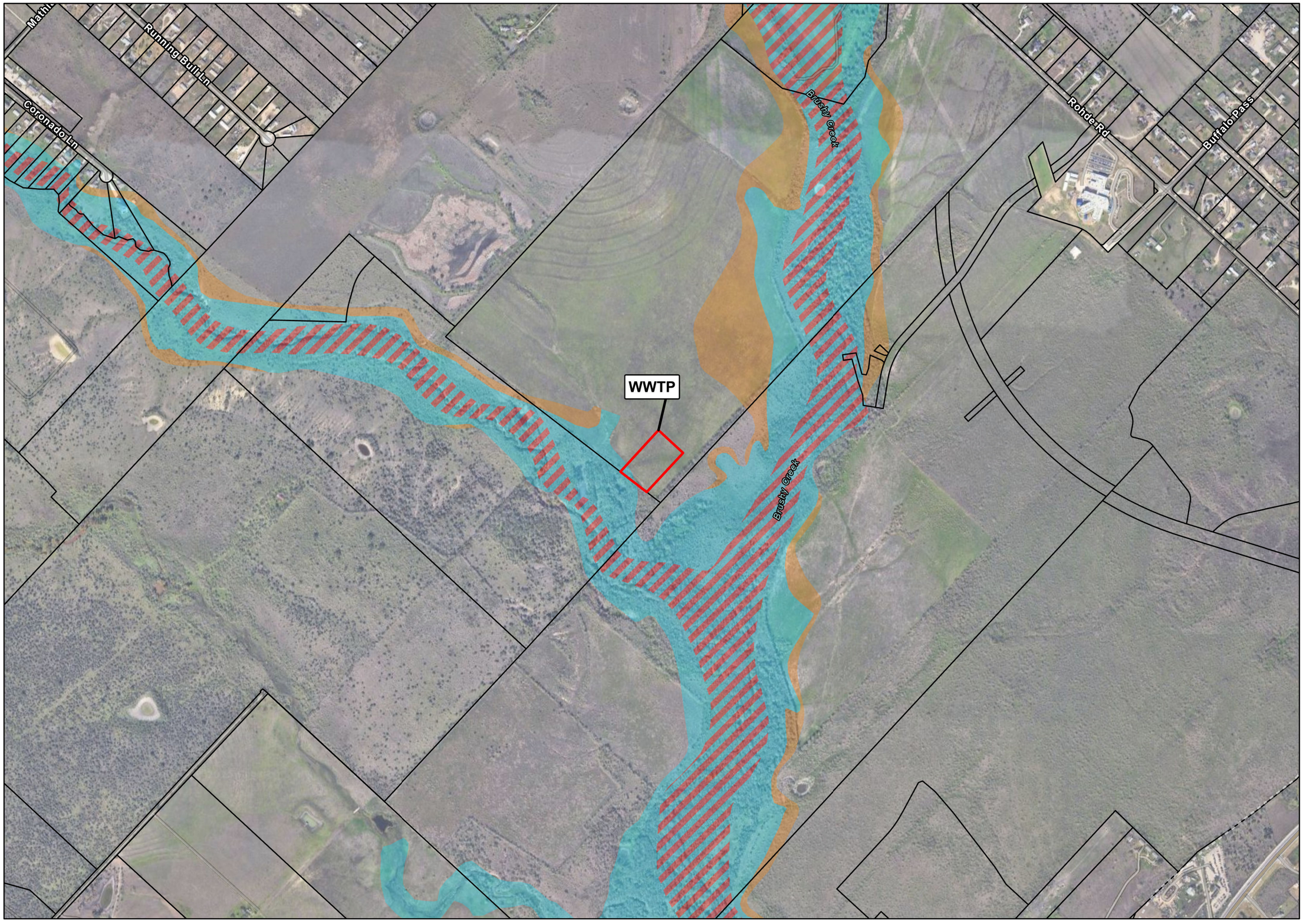
ATTACHMENT Q

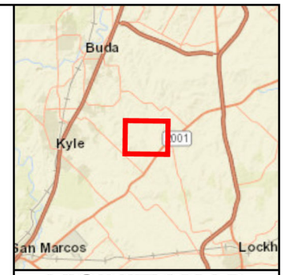
FLOODPLAIN MAP

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337





VICINITY MAP
1 INCH = 10 MILES

Legend

FEMA Floodplain
- Floodway
- 100 Year
- 500 Year
- WWTP Boundary
- HCAD Parcels

FLOODPLAIN MAP

SIMPSON TPDES
HAYS COUNTY, TEXAS

N W E S

0 800
1 INCH = 800 FEET
IMAGERY PROVIDED BY GOOGLE

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_Individuals\1_Nguyen\Simpson TPDES\Simpson TPDES.aprx Project Number: 29789-0002-01.001 Date: 6/17/2025 User Name: ahinkle

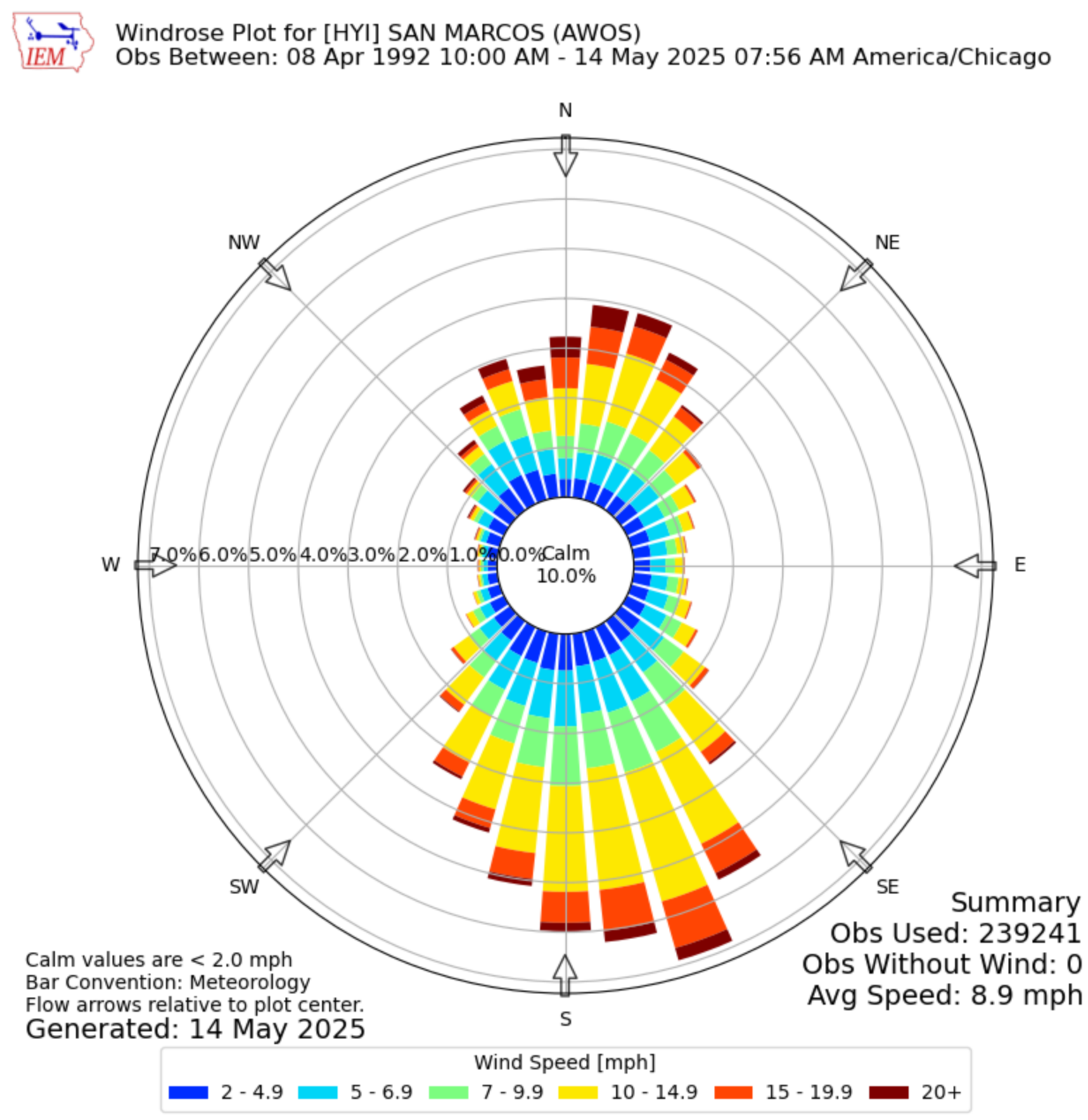
ATTACHMENT R

WINDROSE

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337


Windrose Plot for [HYI] SAN MARCOS (AWOS)
Obs Between: 08 Apr 1992 10:00 AM - 14 May 2025 07:56 AM America/Chicago
N
NE
E
SE
S
SW
W
NW
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
Calm
10.0%
Summary
Obs Used: 239241
Obs Without Wind: 0
Avg Speed: 8.9 mph
Calm values are < 2.0 mph
Bar Convention: Meteorology
Flow arrows relative to plot center.
Generated: 14 May 2025
Wind Speed [mph]
2 - 4.9
5 - 6.9
7 - 9.9
10 - 14.9
15 - 19.9
20+

ATTACHMENT I

SLUDGE MANAGEMENT PLAN

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

QUIDDITY

3100 Alvin Devane Blvd, Suite 150
Austin, Texas 78741
Tel: 512.441.9493
www.quiddity.com

SLUDGE MANAGEMENT PLAN
LB SIMPSON, LLC
WQ0016236001 TPDES PERMIT MAJOR AMENDMENT

INTRODUCTION

This sludge management and disposal plan is being submitted as an attachment to the TPDES major amendment permit application for LB Simpson, LLC. The Simpson Wastewater Treatment Plant will be a 0.20 million gallons per day (MGD) single stage nitrification activated sludge plant, with proposed future phases of 0.40 MGD and 0.90 MGD.

DIMENSIONS AND CAPACITIES

Excess solids generated from the activated plant will be wasted to an aerobic digester for further treatment. The digester will have a volume of 14,315 ft^3 in the Interim I phase. The Interim II and Final phases will have digester volumes of 28,630 ft^3 and 76,160 ft^3, respectively. The dewatered stabilized sludge will then be hauled away to a TCEQ permitted land application site for disposal by a licensed sludge hauler.

SOLIDS GENERATION

Solids to be wasted from the activated sludge process are based on 1.227 pounds of TSS produced per pound of BOD applied. The design influent BOD concentration for all phases is 300 mg/l. Following is the amount of solids generated by the wastewater treatment plant at design flow and at 75 percent, 50 percent and 25 percent of design flow:

Interim I Phase – 0.20 MGD		
Percent of Design Flow	Flow (MGD)	Solids Generated (lb/day)
25	0.05	125
50	0.10	250
75	0.15	375
100	0.20	500

QUIDDITY

3100 Alvin Devane Blvd, Suite 150
Austin, Texas 78741
Tel: 512.441.9493
www.quiddity.com

Interim II Phase – 0.40 MGD		
Percent of Design Flow	Flow (MGD)	Solids Generated (lb/day)
25	0.10	307
50	0.20	614
75	0.30	921
100	0.40	1,228

Final Phase – 0.90 MGD		
Percent of Design Flow	Flow (MGD)	Solids Generated (lb/day)
25	0.23	691
50	0.45	1,381
75	0.68	2,072
100	0.90	2,763

OPERATING PARAMETERS

The single stage nitrification activated sludge process works best between mixed liquor suspended solids (MLSS) concentrations of 2,000 – 6,000 mg/l. The operator will determine the mixed liquor concentration that produces the highest quality effluent taking into consideration factors such as hydraulic and organic loading, available air capacity, and solids handling. Field testing and laboratory analysis will be done to monitor the MLSS and maintain the appropriate solids concentration.

SOLIDS REMOVAL PROCEDURE

Laboratory analysis and field testing will be conducted to determine the solids concentration in the aeration basin. To maintain an appropriate solids inventory, the amount of solids to be wasted per day is equal to the amount of solids generated per day. This amount is stated in the SOLIDS GENERATION section of this plan. Excess solids will then be wasted from the bottom of the clarifier directly to the aerobic digester to maintain the appropriate solids concentration in the aeration basin.

SOLIDS REMOVAL SCHEDULE

It is assumed that 70% of the solids wasted to the digester are volatile solids and the volatile solids reduction is 30%. For every pound of solids wasted to the digester, 0.79 pounds of solids will need to be disposed of by land application. In addition, it is assumed that the solids can be thickened to 15,000 mg/l in the digester.

QUIDDITY

3100 Alvin Devane Blvd, Suite 150
Austin, Texas 78741
Tel: 512.441.9493
www.quiddity.com

At this concentration, a 14,315 ft^3 digester will hold 13,395 pounds of solids in the Interim I phase. In the Interim II phase, a 28,630 ft^3 digester will hold 26,790 pounds of solids. In the Final phase, a 76,160 ft^3 digester will hold 71,267 pounds of solids. The capacity of the digester divided by the pounds per day of solids to be disposed of will give the sludge hauling schedule.

Interim I Phase – 0.20 MGD		
Percent of Design Flow	Solids Disposed (lb/day)	Hauling Schedule (days)
25	99	136
50	198	68
75	296	45
100	395	34

Interim II Phase – 0.40 MGD		
Percent of Design Flow	Solids Disposed (lb/day)	Hauling Schedule (days)
25	243	110
50	485	55
75	728	37
100	970	28

Final Phase – 0.90 MGD		
Percent of Design Flow	Solids Disposed (lb/day)	Hauling Schedule (days)
25	546	131
50	1,091	65
75	1,637	44
100	2,183	33

QUIDDITY

3100 Alvin Devane Blvd, Suite 150
Austin, Texas 78741
Tel: 512.441.9493
www.quiddity.com

ULTIMATE SLUDGE DISPOSAL

Sludge will be liquid hauled from the plant by a TCEQ registered sludge transporter to a TCEQ permitted land application site or another wastewater treatment plant.

A manifest will be issued with each load of sludge that is hauled from the plant. The following information will be on the manifest to document ultimate disposal of the sludge:

1. Date of sludge hauling
2. Generator Name
3. Generator's address
4. Volume of sludge hauled
5. Name of transporter
6. TCEQ transporter registration number
7. Driver's name
8. Name of disposal site
9. TCEQ Site permit number
10. Date of disposal
11. Volume of sludge disposed

This information, along with laboratory and field data will be used to determine the amount of solids disposed of in dry weight form.

WATER BALANCE NOT REQUIRED

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

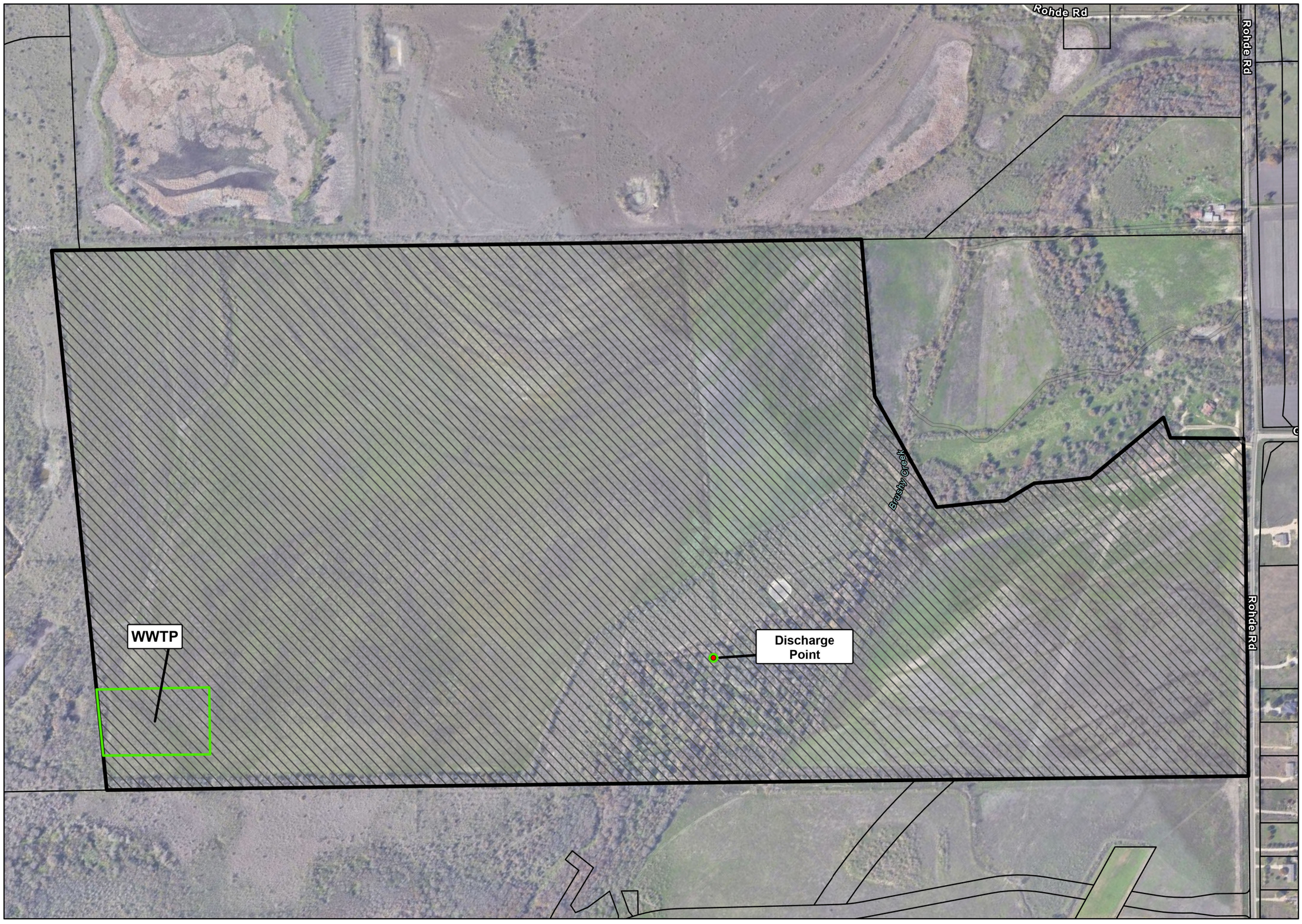
ATTACHMENT G

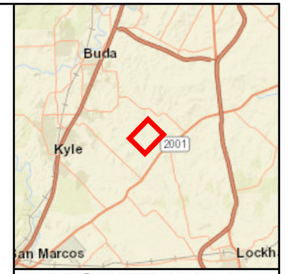
SERVICE AREA MAP

LB SIMPSON, LLC
WQ0016236001 TPDES MAJOR AMENDMENT

JULY 2025

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337





VICINITY MAP
1 INCH = 10 MILES

Legend

- Discharge Point
- WWTP Boundary
- HCAD Parcels

SERVICE AREA MAP

SIMPSON TPDES
HAYS COUNTY, TEXAS

0 400
1 INCH = 400 FEET
IMAGERY PROVIDED BY GOOGLE

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_Individuals\1_Nguyen\Simpson TPDES\Simpson TPDES.aprx Project Number: 29780-0002-01.001 Date: 6/30/2025 User Name: ahinske

Rachel Ellis

From: Jonathan Nguyen <jnguyen@quiddity.com>
Sent: Wednesday, July 30, 2025 8:38 AM
To: Rachel Ellis
Subject: Re: Application for Amendment Permit No. WQ0016236001-LB Simpson LLC-Notice of Deficiency Letter
Attachments: Simpson Spanish NORI.docx

Good morning Rachel,

The NORI statement in the NOD is good to go. Attached is the Spanish NORI. Let me know if you have any questions.

Thank you!

Jonathan Nguyen
Permitting Specialist

QUIDDITY

jnguyen@quiddity.com

(512) 685-5156

912 S. Capital of Texas Hwy, Suite 300, Austin, Texas, 78746

www.quiddity.com

From: Rachel Ellis <Rachel.Ellis@tceq.texas.gov>
Sent: Tuesday, July 29, 2025 3:22 PM
To: Jonathan Nguyen <jnguyen@quiddity.com>
Subject: Application for Amendment Permit No. WQ0016236001-LB Simpson LLC-Notice of Deficiency Letter

Dear Mr. Nguyen,

The attached Notice of Deficiency letter sent on July 29, 2025, requests additional information needed to declare the application administratively complete. Please send the complete response to my attention by August 12, 2025.

Thank you,

Rachel Ellis
Texas Commission on Environmental Quality
Water Quality Division
Application Review & Processing Team
Rachel.Ellis@tceq.texas.gov

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
MODIFICACION

PERMISO NO. WQ00

SOLICITUD. Simpson LLC, 1001 Cypress Creek Drive, Suite 203, Cedar Park, Texas 78613, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0016236001 (EPA I.D. No. TX0143651) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar un aumento en la descarga de aguas residuales domésticas a un volumen que no exceda un flujo promedio diario de 900,000 galones por día. La planta está ubicada a 8,550 pies al oeste de la intersección de la carretera estatal 21 y Farm-to-Market Road 2001, cerca de la ciudad de Niederwald, en el Condado de Hay, Texas 78640. La ruta de descarga es del sitio de la planta a Brushy Creek; de allí al embalse del sitio 14 de SCS; de allí a Brushy Creek; de allí a Plum Creek. La TCEQ recibió esta solicitud el 22 de Julio de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en Kyle Public Library, 550 Scott Street, Kyle, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. 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=-97.769722,30.004166&level=18

[Include the following non-italicized sentence if the facility is located in the Coastal Management Program boundary and is an application for a major amendment which will increase the pollutant loads to coastal waters or would result in relocation of an outfall to a critical areas, or a renewal with such a major amendment. The Coastal Management Program boundary is the area along the Texas Coast of the Gulf of México as depicted on the map in 31 TAC §503.1 and includes part or all of the following counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange. If the application is for amendment that does ot meet the above description, do not include the sentence: El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible

en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

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. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del 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 envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para detalles sobre el estado de la solicitud, favor de visitar la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Para buscar en la base de datos, utilizar el número de permiso para esta solicitud que aparece en la parte superior de este aviso.

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 LB Simpson LLC a la dirección indicada arriba o llamando a Sr. Vinod Nagi, Presidente, al 512-699-2532.

Fecha de emisión: *[Date notice issued]*