Administrative Package Cover Page

This file contains the following documents:

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

Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

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

Summary of Application in Plain Language for TLAP Permit Applicants

Domestic Wastewater TLAP New Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 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.

Dripping Springs Independent School District (CN601259435) proposes to operate Dripping Springs High School No. 2 (RN112240411), a wastewater treatment plant and drip irrigation system. The facility will be located at 11091 Darden Hill Road, in Driftwood, Hays County, Texas 78619. This application is for a new facility to dispose of an average flow not to exceed 50,000 gallons per day of treated domestic wastewater via public access subsurface drip irrigation system with a minimum area of 11.48 acres. This permit will not authorize the discharge of pollutants into water in the state.

Land application of domestic wastewater from the facility are expected to contain BOD and TSS. Additional pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application. Domestic wastewater is treated by an influent bar screen unit, aeration and clarifier system, then followed by a digester and disinfected with a chlorine contact tank. Any sludge will be removed and disposed of by a licensed hauler. In addition, the facility includes a storage tank that equals at least three days of the daily average flow.

Nueva aplicación TLAP de aguas residuales domésticas

Se proporciona el siguiente resumen de esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo exige el Capítulo 39 del Código Administrativo 30 de Texas. 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.

El Distrito Escolar Independiente de Dripping Springs (CN601259435) propone operar la Escuela Secundaria de Dripping Springs No. 2 (RN112240411), una planta de tratamiento de aguas residuales y un sistema de dispersión de irigación a manera de goteo. La instalación estará ubicada en 11091 Darden Hill Road, Driftwood, en el condado de Hays, Texas 78619. Esta solicitud es para una nueva instalación que no excederá un flujo promedio de 50,000 galones por día de aguas residuales. El sistema de dispersión de

goteo subterráneo aplicará descargos de 50,000 galones por día en un área de 11.48 acres. Este permiso no autorizará el descargo de contaminantes en las aguas del estado.

Se espera que la aplicación a la tierra de aguas residuales domésticas de la instalación contenga DBO y SST. Los contaminantes adicionales están presentados en el Informe Técnico Nacional 1.0, Sección 7. Las aguas residuales domésticas serán tratadas a medio de una unidad de cribado de barras afluentes, un sistema de aireación y clarificación, y luego el agua pasa por un digestor y se desinfecta con un tanque de contacto de cloro. El lodo será eliminado y luego transportado a un vertedero autorizado. Además, la instalación incluye un tanque de almacenamiento que tendrá el volumen equivalente de tres días de flujo.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PROPOSED PERMIT NO. WQ0016837001

APPLICATION. Dripping Springs Independent School District, 300 Sportsplex Drive, Dripping Springs, Texas 78620, has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Land Application Permit (TLAP) No. WQ0016837001 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 50,000 gallons per day via subsurface area drip dispersal system on a minimum area of 11.48 acres. The domestic wastewater treatment facility and disposal area will be located at 11091 Darden Hill Road, near the city of Dripping Springs, in Hays County, Texas 78619. TCEQ received this application on July 1, 2025. The permit application will be available for viewing and copying at Dripping Springs ISD Administration Building, 300 Sportsplex Drive, Dripping Springs, in Hays County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:
https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-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=-98.004936,30.147994&level=18

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at:
https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications.
El aviso de idioma alternativo en español está disponible en
https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-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 Dripping Springs Independent School District at the address stated above or by calling Ms. Lauren Barzilla, P.E., Burgess & Niple, Inc., at 512-432-1000.

Issuance Date: July 29, 2025

Comisión Estatal de Calidad Ambiental de Texas

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

PERMISO PROPUESTO NO. WQ0016837001

SOLICITUD. Dripping Springs Independent School District, 300 Sportsplex Drive, Dripping Springs, Texas 78620, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) la propuesta de Permiso de Solicitud de Tierras de Texas (TLAP) No. WQ0016837001 autorizar la eliminación de aguas residuales tratadas en un volumen que no exceda un flujo diario promedio de 50,000 galones por día a través del sistema de dispersión por goteo subterráneo en un área mínimo de 11.48 acres. La instalación de tratamiento de aguas residuales domésticas y el área de eliminación estarán ubicadas en 11091 Darden Hill Road, en el condado de Hays, Texas 78619. La TCEQ recibió esta solicitud el 1 de julio de 2025. La solicitud de permiso estará disponible para ver y copiar en el Edificio de Administración de Dripping Springs ISD, 300 Sportsplex Drive, Dripping Springs, en el condado de Hays, Texas, antes de que se publique en el periódico la fecha de publicación de este aviso. La solicitud, incluidas las actualizaciones y los avisos, está disponible electrónicamente en el siguiente sitio web:
https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications.
Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía y no forma parte de la solicitud o aviso. Para conocer la ubicación exacta, consulte la aplicación.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.004936,30.147994&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/tlap-applications.

AVISO ADICIONAL. El Director Ejecutivo de TCEQ ha determinado que la solicitud está administrativamente completa y llevará a cabo 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 se publicarán y enviarán a aquellos en la lista de correo de personas en todo el condado que desean recibir los avisos y aquellos en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para los comentarios públicos.**

COMENTARIO PÚBLICO/REUNIÓN PÚBLICA. Puede enviar comentarios públicos o solicitar una reunión pública sobre esta solicitud. El propósito de una reunión pública es brindar la oportunidad de comentar o hacer preguntas sobre la solicitud. La TCEQ celebra una reunión pública si el Director Ejecutivo determina que existe un grado suficiente de interés público en

la solicitud o si un legislador local lo solicita. Una reunión pública no es una audiencia administrativa de asuntos contenciosos.

OPORTUNIDAD PARA UNA AUDIENCIA ADMINISTRATIVA DE LOS CONTENCIOSOS. Después de la fecha límite para comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todos los comentarios públicos esenciales, relevantes o significativos. **A menos que la solicitud se haya remitido directamente a una audiencia administrativa, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud se enviarán por correo a todos los comentaristas públicos y a las personas que están en la lista para recibir avisos de esta solicitud. Si se reciben comentarios, el aviso también proporcionará instrucciones para solicitar la reconsideración de la decisión del Director Ejecutivo y solicitar una audiencia administrativa de los asuntos contenciosos.** Una audiencia administrativa es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito estatal.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, DEBE INCLUIR EN SU SOLICITUD LA SIGUIENTE INFORMACIÓN: su nombre, dirección y número de teléfono; el nombre y el número de permiso del solicitante; la ubicación y la distancia de su propiedad/actividad a la instalación; una descripción específica de cómo el Sitio lo afectaría negativamente de una manera que no es común para el público en general; una lista de todas las cuestiones de hecho en disputa que plantee durante el período de comentarios; y la declaración "[Yo/solicitamos] una audiencia de caso impugnado". Si está presentando la petición para una audiencia de caso impugnado en nombre de un grupo o asociación, debe identificar a una persona que represente al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de una empresa del grupo que se vería afectada negativamente por la planta o actividad propuesta; proporcionar la información enumerada anteriormente con respecto a la ubicación del miembro afectado y la distancia de la planta o actividad propuesta; explicar cómo y por qué se vería afectada la extremidad; y explicar cómo los intereses que el grupo desea proteger son relevantes para el propósito del grupo.

Después del cierre de todos los períodos de comentarios y peticiones aplicables, el Director Ejecutivo enviará la solicitud y cualquier petición de reconsideración o de audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

La Comisión solo puede acceder a una solicitud de audiencia de un asunto impugnado sobre cuestiones que el solicitante haya planteado en sus observaciones oportunas y que no hayan sido retiradas posteriormente. **Si se concede una audiencia, el objeto de la audiencia se limitará a cuestiones de hecho en disputa o cuestiones mixtas de hecho y derecho relacionadas con los intereses y materiales relevantes de la calidad del agua que se hayan planteado durante el período de comentarios.**

LISTA DE CORREO. Si presenta comentarios públicos, una solicitud de audiencia administrativa o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará avisos públicos con respecto a la solicitud. Además, puede solicitar que la TCEQ ponga su nombre en una o más de las siguientes listas de correo: (1) la lista de correo permanente para recibir avisos del solicitante indicados por su nombre y número de permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado

específico. Si desea que su nombre se agregue a una de las listas, designe qué lista(s) y envíe su solicitud por correo a la Oficina del Secretario Principal de la TCEQ.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para obtener detalles sobre el estado de la solicitud, visite la Base de datos integrada de comisionados en www.tceq.texas.gov/goto/cid. Para buscar en la base de datos, use el número de permiso de esta aplicación en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios y solicitudes públicas deben enviarse electrónicamente a través de http://www14.tceq.texas.gov/epic/eComment/ o por escrito a la Comisión de Calidad Ambiental de Texas, Oficina del Secretario Principal, MC-105, PO Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que proporcione, incluido su nombre, número de teléfono, dirección de correo electrónico y dirección física, pasará a formar parte del registro público de la Agencia. Para obtener más información sobre esta solicitud de permiso o el proceso de permiso, llame al programa de educación pública de TCEQ, sin cargo, al 1-800-687-4040. Para obtener información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Dripping Springs Independent School District en la dirección indicada anteriormente o llamando a Lauren Barzilla, P.E., Burgess & Niple, Inc., al 512-432-1000.

Fecha de emisión: 29 de julio de 2025

Leah Whallon

From: Lauren Barzilla <Lauren.Barzilla@burgessniple.com>
Sent: Monday, July 28, 2025 5:18 PM
To: Leah Whallon; Alicia Gonzales; scott.berry@dsisdtx.us
Subject: RE: Application for Proposed Permit No. WQ0016837001; Dripping Springs Independent School District
Attachments: Avery Labels.docx; Lanowners List.xlsx; Municipal Disposal New Spanish NORI.docx; TCEQ DSISD Permit ADMIN Submittal Package_07.28.2025.pdf

Leah,

Sorry for the delay, see the attachment for our comment response. Hopefully the additional attachments help with the Avery Labels, but if not let me know and we will figure something else out.

Let me know if you have any questions, or need anything else.

Thanks

Lauren Barzilla, P.E.
Austin North District Director

Burgess & Niple, Inc.
512.432.1000
cell 979.574.0905
235 Ledge Stone Drive
Austin, TX 78737
burgessniple.com

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Monday, July 28, 2025 8:42 AM
To: Alicia Gonzales <Alicia.Gonzales@burgessniple.com>; Lauren Barzilla <Lauren.Barzilla@burgessniple.com>; scott.berry@dsisdtx.us
Subject: RE: Application for Proposed Permit No. WQ0016837001; Dripping Springs Independent School District

Good Morning,

I'm following up on the 3 remaining items needed to complete the administrative review. If more time is needed, please let me know and I can send a 30 day extension.

Thank you,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at
www.tceq.texas.gov/customersurvey

From: Leah Whallon
Sent: Thursday, July 24, 2025 1:36 PM
To: Alicia Gonzales <Alicia.Gonzales@burgessniple.com>; Lauren Barzilla <Lauren.Barzilla@burgessniple.com>; scott.berry@dsisdtx.us
Subject: RE: Application for Proposed Permit No. WQ0016837001; Dripping Springs Independent School District

Hi Alicia,

The summary should use dispose/disposal in place of discharge since no discharge is being requested in the application. There is also a statement in the template that needs to be included: <<*For TLAP applications include the following sentence, otherwise delete:*>> This permit will not authorize a discharge of pollutants into water in the state. There is an example domestic TLAP summary on pgs. 5-6 of the PLS Form (TCEQ-20972). Please let me know if you have any questions.

Thank you,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at
www.tceq.texas.gov/customersurvey

From: Alicia Gonzales <Alicia.Gonzales@burgessniple.com>
Sent: Thursday, July 24, 2025 12:35 PM
To: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>; Lauren Barzilla <Lauren.Barzilla@burgessniple.com>; scott.berry@dsisdtx.us
Subject: RE: Application for Proposed Permit No. WQ0016837001; Dripping Springs Independent School District

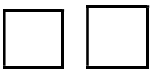
Good afternoon, Leah,

Attached is the updated PLS document. Please review and confirm if it meets the requested changes.

Thank you,

Alicia Gonzales,
Water/Wastewater EIT

Burgess & Niple, Inc.
512.306.9266 x7741
cell 505.695.5871
10801-2 N. Mopac Expressway | Suite 340
Austin, TX 78759
burgessniple.com



From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Wednesday, July 23, 2025 12:07 PM
To: Lauren Barzilla <Lauren.Barzilla@burgessniple.com>; scott.berry@dsisdtx.us; Alicia Gonzales <Alicia.Gonzales@burgessniple.com>
Subject: RE: Application for Proposed Permit No. WQ0016837001; Dripping Springs Independent School District

Thank you, Lauren.

I've reviewed the response and there are a couple of items that need to be updated.

1. The plain language summary was requested to be updated to remove reference to discharge and to include the statement for TLAPs that the permit will not authorize discharge of pollutants to water in the state, but the updated summaries do not reflect these changes. Please provide updated and accurate plain language summaries in English and Spanish.

2. The attached mailing labels only show one landowner's name and address (repeatedly) and there is a formatting error received when opening the file. Please provide the complete landowner list, formatted for mailing labels in a Word document.

3. The Spanish NORI is missing the applicant's mailing address, public viewing location address, and location map web link. Please provide the Spanish NORI to include all items in the template in a Word document.

The other items have been addressed sufficiently. Please let me know if you have any questions or need additional time to complete the response to the items above.

Thank you,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

From: Lauren Barzilla <Lauren.Barzilla@burgessniple.com>
Sent: Tuesday, July 15, 2025 9:31 AM
To: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>; scott.berry@dsisdtx.us; Alicia Gonzales <Alicia.Gonzales@burgessniple.com>
Subject: RE: Application for Proposed Permit No. WQ0016837001; Dripping Springs Independent School District

Leah,

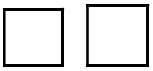
Please see the attachments addressing your comment letter. A hard copy of the full updated application will be dropped off at the office of the TCEQ today. Would you also like for me to add the updated application to the FTP site?

Please let me know if you have any questions or need anything else.

Thanks

Lauren Barzilla, P.E.
Austin North District Director

Burgess & Niple, Inc.
512.432.1000
cell 979.574.0905
235 Ledge Stone Drive
Austin, TX 78737
burgessniple.com



From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Monday, July 7, 2025 3:27 PM
To: scott.berry@dsisdtx.us; Lauren Barzilla <Lauren.Barzilla@burgessniple.com>
Subject: Application for Proposed Permit No. WQ0016837001; Dripping Springs Independent School District

Good Afternoon,

Please see the attached Notice of Deficiency letter dated July 7, 2025 requesting additional information needed to declare the application administratively complete. Please send the complete response by July 21, 2025.

Please let me know if you have any questions.

Thank you,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at
www.tceq.texas.gov/customersurvey

BURGESS & NIPLE

235 Ledge Stone Drive | Austin, TX 78737 | 512.306.9266 x 6402

July 28, 2025

Leah Whallon
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality
P.O. Box 13087, Austin, Texas 78711-3087

Re: Application for Proposed Permit No.: WQ0016837001
Applicant Name: Dripping Springs Independent School District (CN601259435)
Site Name: Dripping Springs ISD High School No. 2 (RN112240411)
Type of Application: New

To Ms.Whallon:

We received your comment letter dated 7/23/2025. Please see the following responses for the completion review below.

Comment 1: The plain language summary was requested to be updated to remove reference to discharge and to include the statement for TLAPs that the permit will not authorize discharge of pollutants to water in the state, but the updated summaries do not reflect these changes. Please provide updated and accurate plain language summaries in English and Spanish.

Response 1: Plain Language Summary (PLS) and Public Involvement Plan Form (PIP) have been updated per your request.

Comment 2: The attached mailing labels only show one landowner's name and address (repeatedly) and there is a formatting error received when opening the file. Please provide the complete landowner list, formatted for mailing labels in a Word document.

Response 2: Avery Mailing Labels have been updated per your request. Note that the attached excel spreadsheet is used to link the Avery labels. Follow the steps provided to access:

1. Open word and allow reference to sheet 1 of excel spreadsheet
2. Go to the mailing tab in word document and select update labels
3. All recipients from the excel spreadsheet should be shown in Avery 5160 label format

Comment 3: The Spanish NORI is missing the applicant's mailing address, public viewing location address, and location map web link. Please provide the Spanish NORI to include all items in the template in a Word document.

Response 3: Municipal Disposal New Spanish NORI have been updated per your request.

Sincerely,

Lauren Barzilla, P.E.
Project Manager

Enclosures:

Updated Plain Language Summary (PLS)
Updated Public Involvement Plan Form (PIP)
Updated Avery Mailing Labels – Word and Excel Documents
Updated Municipal Disposal New Spanish NORI

cc: Mr. Scott Berry, Chief Operations Officer, Dripping Springs ISD, 300 Sportsplex Drive Dripping Springs, Texas 78620

Summary of Application in Plain Language for TLAP Permit Applicants

Domestic Wastewater TLAP New Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 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.

Dripping Springs Independent School District (CN601259435) proposes to operate Dripping Springs High School No. 2 (RN112240411), a wastewater treatment plant and drip irrigation system. The facility will be located at 11091 Darden Hill Road, in Driftwood, Hays County, Texas 78619. This application is for a new facility to dispose of an average flow not to exceed 50,000 gallons per day of treated domestic wastewater via public access subsurface drip irrigation system with a minimum area of 11.48 acres. This permit will not authorize the discharge of pollutants into water in the state.

Land application of domestic wastewater from the facility are expected to contain BOD and TSS. Additional pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application. Domestic wastewater is treated by an influent bar screen unit, aeration and clarifier system, then followed by a digester and disinfected with a chlorine contact tank. Any sludge will be removed and disposed of by a licensed hauler. In addition, the facility includes a storage tank that equals at least three days of the daily average flow.

Nueva aplicación TLAP de aguas residuales domésticas

Se proporciona el siguiente resumen de esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo exige el Capítulo 39 del Código Administrativo 30 de Texas. 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.

El Distrito Escolar Independiente de Dripping Springs (CN601259435) propone operar la Escuela Secundaria de Dripping Springs No. 2 (RN112240411), una planta de tratamiento de aguas residuales y un sistema de dispersión de irigación a manera de goteo. La instalación estará ubicada en 11091 Darden Hill Road, Driftwood, en el condado de Hays, Texas 78619. Esta solicitud es para una nueva instalación que no excederá un flujo promedio de 50,000 galones por día de aguas residuales. El sistema de dispersión de

goteo subterráneo aplicará descargos de 50,000 galones por día en un área de 11.48 acres. Este permiso no autorizará el descargo de contaminantes en las aguas del estado.

Se espera que la aplicación a la tierra de aguas residuales domésticas de la instalación contenga DBO y SST. Los contaminantes adicionales están presentados en el Informe Técnico Nacional 1.0, Sección 7. Las aguas residuales domésticas serán tratadas a medio de una unidad de cribado de barras afluentes, un sistema de aireación y clarificación, y luego el agua pasa por un digestor y se desinfecta con un tanque de contacto de cloro. El lodo será eliminado y luego transportado a un vertedero autorizado. Además, la instalación incluye un tanque de almacenamiento que tendrá el volumen equivalente de tres días de flujo.

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.

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.

Dripping Springs Independent School District (CN601259435) proposes to operate Dripping Springs High School No. 2 (RN112240411), a wastewater treatment plant and drip irrigation system. The facility will be located at 11091 Darden Hill Road, in Driftwood, Hays County, Texas 78619. This application is for a new facility to dispose of an average flow not to exceed 50,000 gallons per day of treated domestic wastewater via public access subsurface drip irrigation system with a minimum area of 11.48 acres. This permit will not authorize the discharge of pollutants into water in the state.

Land application of domestic wastewater from the facility are expected to contain BOD and TSS. Additional pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application. Domestic wastewater is treated by an influent bar screen unit, aeration and clarifier system, then followed by a digester and disinfected with a chlorine contact tank. Any sludge will be removed and disposed of by a licensed hauler. In addition, the facility includes a storage tank that equals at least three days of the daily average flow.

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.

Dripping Springs ETJ

(City)

Hays

(County)

U.S. Census Bureau

(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

96.3%

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

$56,826

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

White alone: 81.8%, Black alone: 0.9%, American Indian and Alaska Native alone: 0.6%, Asian alone: 8.7%, Two or More Races: 7.1%, Hispanic or Latino: 12.7% White alone, not Hispanic or Latino 75.1%

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

Language other than English spoken at home: 11.7%

(e) Languages commonly spoken in area by percentage

Spanish

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

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

☐ Yes ☐ No

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

☐ Yes ☐ No

If Yes, please describe.

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

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

☒ Yes ☐ No

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

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

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

☐ TCEQ Regional Office ☐ TCEQ Central Office

☐ Public Place (specify)

Section 7. Voluntary Submittal

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

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

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

Cooper Charles & Linda R

2054 Darden Hill Rd Driftwood, TX 78619-8800

Graham Margaret D & Hoermann William

301 Enchanted Oak Dr Driftwood, TX 78619

Williams Gary D & Huston Janet M

355 Enchanted Oak Dr Driftwood, TX 78619

Pena Jose O & Annie C

415 Enchanted Oak Dr Driftwood, TX 78619

Miller Steven M & Anderson Raymond B Management Trust - Miller Steven M (Ind & Trustee) & Anderson Raymond B (Ind & Trustee)

Huffman, Sherry J

595 Enchanted Oak Dr Driftwood, TX 78619-4235

Crust Rise In Peace, LLC

12005 W Highway 290 Austin, TX 78737-4235

Taylor Larry F & Kay

801 Enchanted Oaks Dr Driftwood, TX 78619

Kubena Larry A

895 Enchanted Oak Dr Driftwood, TX 78619-4226

Fitz Family Trust - Steven D Fitz & Cynthia B Fitz Trustees

915 Enchanted Oak Dr Driftwood, TX 78619-4250

Hammonds, Courtney Jane & Michael David

999 Enchanted Oaks Dr Driftwood, TX 78619-4250

Porter, Alyda & Stephen

1075 Enchanted Oak Dr Driftwood, TX 78619

Weeden El Rose

1175 Enchanted Oak Dr Driftwood, TX 78619

Soltys Robert G & Norma J

1241 Enchanted Oak Dr Driftwood, TX 78619-4317

Bowling Family Trust - Bowling Ronald & Mary Ann Trustees

1275 Enchanted Oak Dr Driftwood, TX 78619-4317

Adams, Marilyn

3204 Thousand Oaks Dr Austin, TX 78746-7869

Life Family Inc

8901 Highway 71 W Austin, TX 78735

Brooks, Sammy (Sam) Ollie

10600 Darden Hills Rd Austin, TX 78737-8503

Peters Joe M & Marsha W

8316 Blazyk Dr Austin, TX 78737

Burba, Edward Thomas

10800 Darden Hills Rd Austin, TX 78737-8525

Burba Edward T & Burba Sharon L

11000 Darden Hill Rd Austin, TX 78737-9280

Burba Sharon Louise & Deangelo John Thomas

11000 Darden Hill Rd Austin, TX 78737-9280

Burba Sharon Louise & Deangelo John Thomas

11000 Darden Hills Rd Austin, TX 78737-9280

Burba Sharon Louise & Deangelo John Thomas

11000 Darden Hills Rd Austin, TX 78737-9280

OC Ranch LTD

39423 Lago Dr Magnolia, TX 77354-4489

Comisión Estatal de Calidad Ambiental de Texas

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

PERMISO PROPUESTO NO. WQ00

PEDIR. *El Distrito Escolar Independiente de Dripping Springs (CN601259435),* 300 Sportsplex Drive, Dripping Springs, Texas 78620, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) la propuesta de Permiso de Solicitud de Tierras de Texas (TLAP) No. WQ0016837001 autorizar la eliminación de aguas residuales tratadas en un volumen que no exceda un flujo diario promedio de *50,000* galones por día a través del *sistema de dispersión por goteo subterráneo en un área mínimo de 11.48 acres*. La instalación de tratamiento de aguas residuales domésticas y el área de eliminación estarán ubicadas *en 11091 Darden Hill Road,* Driftwood, TX en *el condado de Hays*, Texas *78619*. La TCEQ recibió esta solicitud el *1 de julio de 2025.* La solicitud de permiso estará disponible para ver y copiar en el Edificio de Administración de *Dripping Springs ISD, 300 Sportsplex Drive,* Dripping Springs, en el condado de Hays, Texas, antes de que se publique en el periódico la fecha de publicación de este aviso. La solicitud, incluidas las actualizaciones y los avisos, está disponible electrónicamente en el siguiente sitio web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications. Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía y no forma parte de la solicitud o aviso. Para conocer la ubicación exacta, consulte la aplicación. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.004936,30.147994&level=18

[Incluya la siguiente oración sin cursiva si la instalación está ubicada en los límites del Programa de Manejo Costero. El límite del Programa de Manejo Costero es el área a lo largo de la costa de Texas del Golfo de México como se muestra en el mapa en 31 TAC §503.1 e incluye parte o todos los siguientes condados: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange.] El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y regulaciones del Programa de Administración Costera de Texas (CMP) de acuerdo con las regulaciones del Consejo de Coordinación Costera (CCC) y ha determinado que la acción está de acuerdo con las metas y regulaciones relevantes 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/tlap-applications.

AVISO ADICIONAL. El Director Ejecutivo de TCEQ ha determinado que la solicitud está administrativamente completa y llevará a cabo 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 se publicarán y enviarán a aquellos en la lista de correo de personas en todo el condado que desean recibir los avisos y aquellos en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para los comentarios públicos.**

COMENTARIO PÚBLICO/REUNIÓN PÚBLICA. Puede enviar comentarios públicos o solicitar una reunión pública sobre esta solicitud. El propósito de una reunión pública es brindar la oportunidad de comentar o hacer preguntas sobre la solicitud. La TCEQ celebra una reunión pública si el Director Ejecutivo determina que existe un grado suficiente de interés público en la solicitud o si un legislador local lo solicita. Una reunión pública no es una audiencia administrativa de asuntos contenciosos.

OPORTUNIDAD PARA UNA AUDIENCIA ADMINISTRATIVA DE LOS CONTENCIOSOS. Después de la fecha límite para comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todos los comentarios públicos esenciales, relevantes o significativos. **A menos que la solicitud se haya remitido directamente a una audiencia administrativa, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud se enviarán por correo a todos los comentaristas públicos y a las personas que están en la lista para recibir avisos de esta solicitud. Si se reciben comentarios, el aviso también proporcionará instrucciones para solicitar la reconsideración de la decisión del Director Ejecutivo y solicitar una audiencia administrativa de los asuntos contenciosos.** Una audiencia administrativa es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito estatal.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, DEBE INCLUIR EN SU SOLICITUD LA SIGUIENTE INFORMACIÓN: su nombre, dirección y número de teléfono; el nombre y el número de permiso del solicitante; la ubicación y la distancia de su propiedad/actividad a la instalación; una descripción específica de cómo el Sitio lo afectaría negativamente de una manera que no es común para el público en general; una lista de todas las cuestiones de hecho en disputa que plantee durante el período de comentarios; y la declaración "[Yo/solicitamos] una audiencia de caso impugnado". Si está presentando la petición para una audiencia de caso impugnado en nombre de un grupo o asociación, debe identificar a una persona que represente al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de una empresa del grupo que se vería afectada negativamente por la planta o actividad propuesta; proporcionar la información enumerada anteriormente con respecto a la ubicación del miembro afectado y la distancia de la planta o actividad propuesta; explicar cómo y por qué se vería afectada la extremidad; y explicar cómo los intereses que el grupo desea proteger son relevantes para el propósito del grupo.

Después del cierre de todos los períodos de comentarios y peticiones aplicables, el Director Ejecutivo enviará la solicitud y cualquier petición de reconsideración o de audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

La Comisión solo puede acceder a una solicitud de audiencia de un asunto impugnado sobre cuestiones que el solicitante haya planteado en sus observaciones oportunas y que no hayan sido retiradas posteriormente. **Si se concede una audiencia, el objeto de la audiencia se**

limitará a cuestiones de hecho en disputa o cuestiones mixtas de hecho y derecho relacionadas con los intereses y materiales relevantes de la calidad del agua que se hayan planteado durante el período de comentarios.

LISTA DE CORREO. Si presenta comentarios públicos, una solicitud de audiencia administrativa o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará avisos públicos con respecto a la solicitud. Además, puede solicitar que la TCEQ ponga su nombre en una o más de las siguientes listas de correo: (1) la lista de correo permanente para recibir avisos del solicitante indicados por su nombre y número de permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que su nombre se agregue a una de las listas, designe qué lista(s) y envíe su solicitud por correo a la Oficina del Secretario Principal de la TCEQ.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para obtener detalles sobre el estado de la solicitud, visite la Base de datos integrada de comisionados en www.tceq.texas.gov/goto/cid. Para buscar en la base de datos, use el número de permiso de esta aplicación en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios y solicitudes públicas deben enviarse electrónicamente a través de http://www14.tceq.texas.gov/epic/eComment/ o por escrito a la Comisión de Calidad Ambiental de Texas, Oficina del Secretario Principal, MC-105, PO Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que proporcione, incluido su nombre, número de teléfono, dirección de correo electrónico y dirección física, pasará a formar parte del registro público de la Agencia. Para obtener más información sobre esta solicitud de permiso o el proceso de permiso, llame al programa de educación pública de TCEQ, sin cargo, al 1-800-687-4040. Para obtener información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Distrito Escolar Independiente de Dripping Springs en la dirección indicada anteriormente o llamando a *Holly Morris-Kuentz* al *512-858-3002.*

Fecha de emisión: *[Fecha de emisión]*

BURGESS & NIPLE

235 Ledge Stone Drive | Austin, TX 78737 | 512.306.9266 x 6402

July 14, 2025

Leah Whallon
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality
P.O. Box 13087, Austin, Texas 78711-3087

Re: Application for Proposed Permit No.: WQ0016837001
Applicant Name: Dripping Springs Independent School District (CN601259435)
Site Name: Dripping Springs ISD High School No. 2 (RN112240411)
Type of Application: New

To Ms.Whallon:

We have received the final items requested from TCEQ to declare the application administratively complete. Please see the following responses for the completion review below.

Comment 1. Core Data Form, Section I, Item 2 – Customer Number (CN)
Please provide a revised page to list the customer number (CN601259435). Please also provide an updated page for Administrative Report 1.0, Section 3.A.

Response 1: Cover Page, Core Data Form, Section I, Item 2, and Administrative Report 1.0, Section 3.A have been updated per your request.

Comment 2. Core Data Form, Section II, Item 15 – Customer Mailing Address
The customer's mailing address in the application is 300 Sportsplex Drive. Please confirm the mailing address and provide an updated page to list the correct mailing address.

Response 2: Core Data Form, Section II, Item 15 has been updated per your request.

Comment 3. Core Data Form, Section III, Item 22 – Site Name
The site name is inconsistent throughout the application. Please confirm the site name and provide an updated page to list the correct site name. Please also provide an updated page for Administrative Report 1.0, Section 9.B.

Response 3: Core Data Form, Section III, Item 22, Administrative Report 1.0, Section 9.B, and Water Quality Permit Payment Form Submittal have been updated per your request. The applicant's name on the Domestic Wastewater Permit Application Checklist was also updated and has been included in this submittal.

Comment 4. Core Data Form, Section III, Items 23-25, Site Location
If a physical address is available for the site location, please provide list in item 23. An address for the location was found at 11091 Darden Hill Road. If this is not an acceptable physical address, please provide a location description using a single distance in feet or miles from a nearby intersection. A suggested location description in this format is "approximately 0.4 miles southeast of the intersection of Darden Hill Road and Sawyer Ranch Road". Include the county in item 24. Please also provide an updated page for Administrative Report 1.0, Section 11.A.

Response 4: Core Data Form, Section III, Items 23-25, Administrative Report 1.0, Section 11.A, and Worksheet 7.0 have been updated per your request.

Comment 5. Administrative Report 1.0, Section 8.F, Plain Language Summary (TCEQ-20972)
Please provide an updated plain language summary in English and Spanish to update the site name, physical location description, and description of the disposal method. The summary indicates discharge is proposed but the application does not include any proposed discharge. Please also include the statement for TLAPs that the permit will not authorize discharge of pollutants to water in the state.

Response 5: The Plain Language Summary (TCEQ-20972) and Public Involvement Plan (TCEQ-20960) have been updated per your request.

Comment 6. Administrative Report 1.1, Section 1, Affected Landowner Information
Please provide the affected landowner list formatted for mailing labels (Avery 5160 – all capital letters, no punctuation) in a Microsoft Word document).

Response 6: The Affected Landowner Information has been updated per your request.

Comment 7. The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

APPLICATION. Dripping Springs Independent School District, 303 Sportsplex Drive, Dripping Springs, Texas 78620, (pending response) has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Land Application Permit (TLAP) No. WQ0016837001 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 50,000 gallons per day via subsurface area drip dispersal system on a minimum area of 11.48 acres. The domestic wastewater treatment facility and disposal area will be located (pending response), near the city of Dripping Springs, in Hays County, Texas 78619. TCEQ received this application on July 1, 2025.

The permit application will be available for viewing and copying at Dripping Springs ISD Administration Building, 300 Sportsplex Drive, Dripping Springs, in Hays County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:
https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-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=-98.004936,30.147994&level=18

Further information may also be obtained from Dripping Springs Independent School District at the address stated above or by calling Ms. Lauren Barzilla, P.E., Burgess & Niple, Inc., at 512-432-1000.

Response 7: The NORI should be as follows:
APPLICATION. Dripping Springs Independent School District, 300 Sportsplex Drive, Dripping Springs, Texas 78620, has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Land Application Permit (TLAP) No. WQ0016837001 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 50,000 gallons per day via subsurface area drip dispersal system on a minimum area of 11.48 acres. The domestic wastewater treatment facility and disposal area will be located at 11091 Darden Hill Road, Driftwood, TX 78619 in Hays County. TCEQ received this application on July 1, 2025. The permit application will be available for viewing and copying at Dripping Springs ISD Administration Building, 300 Sportsplex Drive, Dripping Springs, in Hays County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:
https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-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=-98.004936,30.147994&level=18

Comment 8. The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

Response 8: The Spanish NORI has been attached to this comment response letter per your request.

Comment 9. Please provide one additional hard copy of the complete, updated application for the Department of State Health Services.

Response 9: An updated hard copy of the application will be delivered to TCEQ.

Sincerely,

Lauren Barzilla, P.E.
Project Engineer

Enclosures:

Updated Cover Sheet
Updated Core Data Form Section I, II
Updated Administrative Report 1.0, 3.A
Updated Core Data Form, Section III
Updated Administrative Report 1.0, 9.B
Updated Water Quality Permit Payment Form Submittal
Updated Domestic Wastewater Permit Application Checklist
Updated Administrative Report 1.0, 11.A
Updated Worksheet 7.0
Updated Plain Language Summary (TCEQ-20972)
Updated Public Involvement Plan (TCEQ-20960)
Updated Affected Landowner Information - Avery 5160
Updated Municipal Disposal New Spanish NORI

One additional hard copy of the complete, updated application for the Department of State Health Services

cc: Mr. Scott Berry, Chief Operations Officer, Dripping Springs ISD, 300 Sportsplex Drive Dripping Springs, Texas 78620

BURGESS & NIPLE

DRIPPING SPRINGS INDEPENDENT SCHOOL DISTRICT

WASTEWATER TREATMENT PLANT 2025 PERMIT

CN601259435

B&N
burgessniple.com

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 601259435		**RN**

SECTION II: Customer Information

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

☒ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

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

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)*	*If new Customer, enter previous Customer below:*
Dripping Springs Independent School District	

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
		74-6003099	

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:	300 Sportsplex Dr.						
	City	Dripping Springs	**State**	TX	**ZIP**	78620	**ZIP + 4**

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	jaime.dydalewicz@dsisdtx.us

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

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

d. Check the box next to the appropriate application type

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

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

f. For existing permits:

Permit Number: WQ00 Click to enter text.

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

Expiration Date: Click to enter text.

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

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

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

Dripping Springs Independent School District

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

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

CN: 601259435

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

Prefix: Click to enter text. Last Name, First Name: Morris-Kuentz, Holly

Title: Superintendent Credential: Click to enter text.

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

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

Click to enter text.

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

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 858-3013		( ) -

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.)*

Dripping Springs ISD High School No. 2

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	11091 Darden Hill Rd							
	City	Driftwood	**State**	TX	**ZIP**	78619	**ZIP + 4**	
24. County	Hays							

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

25. Description to Physical Location:	

26. Nearest City	**State**	**Nearest ZIP Code**

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:			**28. Longitude (W) In Decimal:**		
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			

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

Provide WWT and drip irrigation for ISD

34. Mailing Address:	**300 Sportsplex Dr**							
	City	**Dripping Springs**	**State**	**TX**	**ZIP**	**78620**	**ZIP + 4**	
35. E-Mail Address:	**jaime.dydalewicz@dsisdtx.us**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) 858-3013		( ) -

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

   ☒ Yes ☐ No

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

   ☐ Yes ☒ No

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

F. Summary of Application in Plain Language Template

Complete the F. Summary of Application in Plain Language Template (TCEQ Form 20972), also known as the plain language summary or PLS, and include as an attachment.

Attachment: Attachment 2

G. Public Involvement Plan Form

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

Attachment: Attachment 3

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

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

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

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

Dripping Springs ISD High School No. 2

C. Owner of treatment facility: Dripping Springs Independent School District

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

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

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

Title: Chief Operations Officer Credential: Click to enter text.

Organization Name: Dripping Springs ISD

Mailing Address: 300 Sportsplex Dr. City, State, Zip Code: Dripping Springs, TX 78620

Phone No.: 512-858-3013 E-mail Address: scott.berry@dsisdtx.us

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

Attachment: Click to enter text.

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if the mailing the payment.

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- **Do Not mail this form with the application form.**
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, Texas 78753

Fee Code: WQP **Waste Permit No:** Click to enter text.

1. Check or Money Order Number: 060403
2. Check or Money Order Amount: $550.00
3. Date of Check or Money Order: June 23, 2025
4. Name on Check or Money Order: VLK
5. APPLICATION INFORMATION

   Name of Project or Site: Dripping Springs High School No. 2

   Physical Address of Project or Site: (30°, 08', 52.78" N, 98°, 00', 17.77" W)

   If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

Staple Check or Money Order in This Space

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: Dripping Springs Independent School District

PERMIT NUMBER (If new, leave blank): WQ00Click to enter text.

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

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

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region_____
Permit Number _____

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

☐ Authorization granted ☐ Authorization pending

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

Attachment: Click to enter text.

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

Section 11. TLAP Disposal Information (Instructions Page 32)

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

☒ Yes ☐ No

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

11091 Darden Hill Road, Driftwood, TX 78619 in Hays County

B. City nearest the disposal site: Dripping Springs

C. County in which the disposal site is located: Hays

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

During the Initial Phase, effluent from the wastewater treatment plant is directed to a 150,000-gallon ground storage tank before being disposed of through a subsurface drip irrigation system covering 8.03 acres. Interim Phase 1 expands the irrigation area to 9.18 acres, followed by Interim Phase 2, which increases the drip irrigation system to 10.33 acres. In the Final Phase, the subsurface drip irrigation system covers a total of 11.48 acres.

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

Section 12. Miscellaneous Information (Instructions Page 32)

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

☐ Yes ☒ No

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

☐ Yes ☒ No ☐ Not Applicable

If No, or if a new onsite sludge disposal authorization is being requested in this permit application, provide an accurate location description of the sewage sludge disposal site.

The wastewater treatment plant is not in operation and the sludge disposal contractor is not selected yet.

WORKSHEET 7.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

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

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

Section 1. General Information (Instructions Page 92)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): Municipal Wastewater Permitting Team

Program ID: Click to enter text.

Contact Name: Matthew Udenenwu

Phone Number: 512-239-6922

2. Agent/Consultant Contact Information

Contact Name: Lauren Barzilla

Address: 235 Ledge Stone Drive

City, State, and Zip Code: Austin, TX 78737

Phone Number: 512-432-1000

3. Owner/Operator Contact Information

☒ Owner ☐ Operator

Owner/Operator Name: Dripping Springs ISD

Contact Name: Click to enter text.

Address: Click to enter text.

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

Phone Number: Click to enter text.

4. Facility Contact Information

Facility Name: Dripping Springs High School No. 2

Address: 11091 Darden Hill Road

City, State, and Zip Code: Driftwood, TX 78619

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

Facility Contact Person: Click to enter text.

Phone Number: Click to enter text.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

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

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

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

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

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

Dripping Springs Independent School District (CN601259435) proposes to operate Dripping Springs High School No. 2 (RN112240411), a wastewater treatment plant and drip irrigation system. The facility will be located at 11091 Darden Hill Road, in Driftwood, Hays County, Texas 78619. This application is for a new facility to discharge 50,000 gallons per day via subsurface drip field irrigation of treated domestic wastewater in four proposed phases.

Discharges from the facility are expected to contain BOD and TSS. The point of discharge is located at the end of the tubing where the treated wastewater exits to the soil. This will be treated by an influent bar screen unit, aeration and clarifier system, then followed by a digester and disinfected with a chlorine contact tank before it reaches the discharge point. Any sludge will be removed and disposed of by a licensed hauler. This permit will not authorize a discharge of pollutants into water in the state.

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

AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES

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

Dripping Springs Independent School District (CN601259435) propone operar Dripping Springs High School No. 2 (RN112240411), una planta de tratamiento de aguas residuales y sistema de irrigación. La instalación estará ubicada en 11091 Darden Hill Road, en Driftwood, TX, Condado de Hays, Texas 78619. Esta aplicación es para una nueva instalación que descargará 50,000 galones al día de agua domésticas tratadas en cuatro fases propuestas.

Se espera que las descargas de la instalación contengan BOD y TSS. El punto de descargo estará al final de la tubería donde el agua tratada se escapa a la tierra. Agua residual. estará tratado por un sistema de clarificación y aireación. Luego, el agua pasará por un digestor antes de llegar a desinfección a manera de contacto de cloruro. Al final el agua pasará al punto de descargo. Cualquier cantidad de sólidos serán eliminados y descargados por un servicio de colección de residuos. Este permiso no autorizará el descargo de polución a las aguas del estado.

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.

Dripping Springs Independent School District (CN601259435) proposes to operate Dripping Springs High School No. 2 (RN112240411), a wastewater treatment plant and drip irrigation system. The facility will be located at 11091 Darden Hill Road, in Driftwood, Hays County, Texas 78619. This application is for a new facility to dispose of an average flow not to exceed 50,000 gallons per day of treated domestic wastewater via public access subsurface drip irrigation system with a minimum area of 11.48 acres. This permit will not authorize the discharge of pollutants into water in the state.

Land application of domestic wastewater from the facility are expected to contain BOD and TSS. Additional pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application. Domestic wastewater is treated by an influent bar screen unit, aeration and clarifier system, then followed by a digester and disinfected with a chlorine contact tank. Any sludge will be removed and disposed of by a licensed hauler. In addition, the facility includes a storage tank that equals at least three days of the daily average flow.

BURGESS & NIPLE

DRIPPING SPRINGS INDEPENDENT SCHOOL DISTRICT

WASTEWATER TREATMENT PLANT 2025 PERMIT

CN603829425

B&N
burgessniple.com

BURGESS & NIPLE

Firm # 10834 235 Ledge Stone Drive Austin, TX 78737| 512.432.1000| burgessniple.com

June 30, 2025

Texas Commission on Environmental Quality
Water Quality Division
Applications Review and Processing Team (MC148)
Wastewater Permitting Section
P.O. Box 13087
Austin, Texas 78711-3087
239-4671

Re: Dripping Springs High School No. 2
Wastewater Treatment Plant and Drip
Irrigation System Design Improvements
Hays County, Texas
PR62858

Dear Review Team,

Enclosed, please find the TCEQ Domestic Wastewater Permit Application for the Dripping Springs Independent School District.

The application fee has been submitted under separate cover as requested. If you have any questions or comments regarding the supplemental information, please contact me at (512) 432-1000 or via email at lauren.barzilla@burgessniple.com.

Sincerely,

Lauren Barzilla, P.E.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: Dripping Springs High School

PERMIT NUMBER (If new, leave blank): WQ00Click to enter text.

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

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

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region_____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

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

Section 1. Application Fees (Instructions Page 26)

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

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

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed — Check/Money Order Number: 060403

Check/Money Order Amount: $550.00

Name Printed on Check: VLK

EPAY — Voucher Number: 0000082574

Copy of Payment Voucher enclosed? Yes ☒

Section 2. Type of Application (Instructions Page 26)

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

☒ Publicly Owned Domestic Wastewater

☐ Privately-Owned Domestic Wastewater

☐ Conventional Water Treatment

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

☐ Active ☒ Inactive

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

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

d. Check the box next to the appropriate application type

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

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

f. For existing permits:

Permit Number: WQ00 Click to enter text.

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

Expiration Date: Click to enter text.

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

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

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

Dripping Springs Independent School District

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

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

CN: 603829425

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

Prefix: Click to enter text. Last Name, First Name: Morris-Kuentz, Holly

Title: Superintendent Credential: Click to enter text.

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

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

Click to enter text.

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

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

CN: Click to enter text.

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

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

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

Provide a brief description of the need for a co-permittee: Click to enter text.

C. Core Data Form

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

Section 4. Application Contact Information (Instructions Page 27)

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

A. Prefix: Mr. Last Name, First Name: Berry, Scott

Title: Chief Operations Officer Credential: Click to enter text.

Organization Name: Dripping Springs ISD

Mailing Address: 300 Sportsplex Dr. City, State, Zip Code: Dripping Springs, TX 78620

Phone No.: 512-858-3013 E-mail Address: scott.berry@dsisdtx.us

Check one or both: ☒ Administrative Contact ☐ Technical Contact

B. Prefix: Mrs. Last Name, First Name: Barzilla, Lauren

Title: Project Manager Credential: P.E.

Organization Name: Burgess & Niple, Inc.

Mailing Address: 235 Ledge Stone Drive City, State, Zip Code: Austin, TX 78737

Phone No.: 512-432-1000 E-mail Address: lauren.barzilla@burgessniple.com

Check one or both: ☐ Administrative Contact ☒ Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

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

A. Prefix: Mr. Last Name, First Name: Berry, Scott

Title: Chief Operations Officer Credential: Click to enter text.

Organization Name: Dripping Springs ISD

Mailing Address: 300 Sportsplex Dr. City, State, Zip Code: Dripping Springs, TX 78620

Phone No.: 512-858-3013 E-mail Address: scott.berry@dsisdtx.us

B. Prefix: Mrs. Last Name, First Name: Barzilla, Lauren

Title: Project Manager Credential: P.E.

Organization Name: Burgess & Niple, Inc.

Mailing Address: 235 Ledge Stone Drive City, State, Zip Code: Austin, TX 78737

Phone No.: 512-432-1000 E-mail Address: lauren.barzilla@burgessniple.com

Section 6. Billing Contact Information (Instructions Page 27)

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

Prefix: Mr. Last Name, First Name: Berry, Scott

Title: Chief Operations Officer Credential: Click to enter text.

Organization Name: Dripping Springs ISD

Mailing Address: 300 Sportsplex Dr. City, State, Zip Code: Dripping Springs, TX 78620

Phone No.: 512-858-3013 E-mail Address: scott.berry@dsisdtx.us

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

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

Prefix: Mr. Last Name, First Name: Dydalewicz, Jaime

Title: Assistant Director of Facilities Credential: Click to enter text.

Organization Name: Dripping Springs ISD

Mailing Address: 300 Sportsplex Dr. City, State, Zip Code: Dripping Springs, TX 78620

Phone No.: 512-858-3013 E-mail Address: jaime.dydalewicz@isisdtx.us

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Mrs. Last Name, First Name: Barzilla, Lauren

Title: Project Manager Credential: P.E.

Organization Name: Burgess & Niple, Inc.

Mailing Address: 235 Ledge Stone Drive City, State, Zip Code: Austin, TX 78737

Phone No.: 512-432-1000 E-mail Address: lauren.barzilla@burgessniple.com

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

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

☒ E-mail Address

☐ Fax

☒ Regular Mail

C. Contact permit to be listed in the Notices

Prefix: Mrs. Last Name, First Name: Barzilla, Lauren

Title: Project Manager Credential: P.E.

Organization Name: Burgess & Niple, Inc.

Mailing Address: 235 Ledge Stone Drive City, State, Zip Code: Austin, TX 78737

Phone No.: 512-432-1000 E-mail Address: lauren.barzilla@burgessniple.com

D. Public Viewing Information

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

Public building name: Dripping Springs I.S.D. Administration Building

Location within the building: Front Desk

Physical Address of Building: 300 Sportsplex Drive

City: Dripping Springs County: Hays

Contact (Last Name, First Name): Click to enter text.

Phone No.: Click to enter text. Ext.: Click to enter text.

E. Bilingual Notice Requirements

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

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

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

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

   ☐ Yes ☒ No

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

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

   ☐ Yes ☒ No

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

   ☒ Yes ☐ No

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

   ☐ Yes ☒ No

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

F. Summary of Application in Plain Language Template

Complete the F. Summary of Application in Plain Language Template (TCEQ Form 20972), also known as the plain language summary or PLS, and include as an attachment.

Attachment: Attachment 2

G. Public Involvement Plan Form

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

Attachment: Attachment 3

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

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

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

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

Dripping Springs High School No. 2 Wastewater Treatment Plant

C. Owner of treatment facility: Dripping Springs Independent School District

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

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

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

Title: Chief Operations Officer Credential: Click to enter text.

Organization Name: Dripping Springs ISD

Mailing Address: 300 Sportsplex Dr. City, State, Zip Code: Dripping Springs, TX 78620

Phone No.: 512-858-3013 E-mail Address: scott.berry@dsisdtx.us

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

Attachment: Click to enter text.

E. Owner of effluent disposal site:

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

Title: Chief Operations Officer Credential: Click to enter text.

Organization Name: Dripping Springs ISD

Mailing Address: 300 Sportsplex Dr. City, State, Zip Code: Dripping Springs, TX 78620

Phone No.: 512-858-3013 E-mail Address: scott.berry@dsisdtx.us

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

Attachment: Click to enter text.

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

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

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

Organization Name: Click to enter text.

Mailing Address: Click to enter text. City, State, Zip Code: Click to enter text.

Phone No.: Click to enter text. E-mail Address: Click to enter text.

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

Attachment: Click to enter text.

Section 10. TPDES Discharge Information (Instructions Page 31)

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

☐ Yes ☐ No

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

Click to enter text.

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

☐ Yes ☐ No

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

Click to enter text.

City nearest the outfall(s): Click to enter text.

County in which the outfalls(s) is/are located: Click to enter text.

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

☐ Yes ☒ No

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

☐ Authorization granted ☐ Authorization pending

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

Attachment: Click to enter text.

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

Section 11. TLAP Disposal Information (Instructions Page 32)

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

☒ Yes ☐ No

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

The following coordinate is for the effluent disposal site: (30°, 8', 52.78N, 98°, 0', 17.77W).

B. City nearest the disposal site: Dripping Springs

C. County in which the disposal site is located: Hays

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

During the Initial Phase, effluent from the wastewater treatment plant is directed to a 150,000-gallon ground storage tank before being disposed of through a subsurface drip irrigation system covering 8.03 acres. Interim Phase 1 expands the irrigation area to 9.18 acres, followed by Interim Phase 2, which increases the drip irrigation system to 10.33 acres. In the Final Phase, the subsurface drip irrigation system covers a total of 11.48 acres.

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

Section 12. Miscellaneous Information (Instructions Page 32)

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

☐ Yes ☒ No

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

☐ Yes ☒ No ☐ Not Applicable

If No, or if a new onsite sludge disposal authorization is being requested in this permit application, provide an accurate location description of the sewage sludge disposal site.

The wastewater treatment plant is not in operation and the sludge disposal contractor is not selected yet.

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

☐ Yes ☒ No

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

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: Click to enter text.

Amount past due: Click to enter text.

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

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

Enforcement order number: Click to enter text.

Amount past due: Click to enter text.

Section 13. Attachments (Instructions Page 33)

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

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

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

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

☐ Attachment 1 for Individuals as co-applicants

☐ Other Attachments. Please specify: Click to enter text.

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: Click to enter text.

Applicant: Dripping Springs Independent School District

Certification:

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

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

Signatory name (typed or printed): Holly Morris-Kuentz

Signatory title: Superintendent

Signature: _____ Date: 6/25/25

(Use blue ink)

Subscribed and Sworn to before me by the said Holly Morris-Kuentz

on this 25th day of June, 20 25.

My commission expires on the 6th day of October, 20 27.

Katrina C Walker

Notary Public *[SEAL]*

Hays

County, Texas

Katrina C Walker
My Commission Expires
10/6/2027
Notary ID 131748741

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 that the landowners list has also been provided as mailing labels in electronic format (Avery 5160).

D. Provide the source of the landowners' names and mailing addresses: HAYSCAD

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

☐ Yes ☒ No

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

Click to enter text.

Section 2. Original Photographs (Instructions Page 38)

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

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

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

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

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

Section 3. Buffer Zone Map (Instructions Page 38)

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

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

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

☒ Ownership

☐ Restrictive easement

☐ Nuisance odor control

☐ Variance

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

☒ Yes ☐ No

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if the mailing the payment.

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- **Do Not mail this form with the application form.**
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, Texas 78753

Fee Code: WQP **Waste Permit No:** Click to enter text.

1. Check or Money Order Number: 060403
2. Check or Money Order Amount: $550.00
3. Date of Check or Money Order: June 23, 2025
4. Name on Check or Money Order: VLK
5. APPLICATION INFORMATION

   Name of Project or Site: Dripping Springs High School No. 2 WWTP and Drip Irrigation System Design Improvements

   Physical Address of Project or Site: (30°, 08', 52.78" N, 98°, 00', 17.77" W)

   If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

Staple Check or Money Order in This Space

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

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

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

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

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

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

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

Things to Know:

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

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

Electronic Application Submittal ☒ Yes
(See application submittal requirements on page 23 of the instructions.)

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

Summary of Application (in Plain Language) ☒ Yes

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

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

A. Existing/Interim I Phase

Design Flow (MGD): Attachment 8

2-Hr Peak Flow (MGD): Click to enter text.

Estimated construction start date: Click to enter text.

Estimated waste disposal start date: Click to enter text.

B. Interim II Phase

Design Flow (MGD): Click to enter text.

2-Hr Peak Flow (MGD): Click to enter text.

Estimated construction start date: TBD

Estimated waste disposal start date: TBD

C. Final Phase

Design Flow (MGD): Click to enter text.

2-Hr Peak Flow (MGD): Click to enter text.

Estimated construction start date: TBD

Estimated waste disposal start date: TBD

D. Current Operating Phase

Provide the startup date of the facility: N/A

Section 2. Treatment Process (Instructions Page 43)

A. Current Operating Phase

Provide a detailed description of the treatment process. **Include the type of treatment plant, mode of operation, and all treatment units.** Start with the plant's head works and

finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed, a description of *each phase* must be provided**.

This project includes construction of a new influent lift station and a new wastewater treatment plant with a clarifier, aeration system, digester, chlorine contact tank, influent bar screen unit, new blowers and controls. It also includes a 50,000 GPD subsurface drip irrigation system consisting of an irrigation pump skid with valves and filters, subsurface drip piping and tubing, a drip irrigation control/operations building, and an above-ground effluent storage tank. In the Initial Phase, the WWTP will have a treatment capacity of 35,000 gallons per day with a 35,000 GPD drip irrigation system. During Interim Phase One, treatment capacity will increase to 50,000 GPD while the drip field disposal capacity is increased to 40,000 GPD. In Interim Phase Two, the treatment capacity remains at 50,000 GPD and the drip irrigation capacity increases to 45,000 GPD. In the Final Phase, both the treatment facility and the drip irrigation system will operate at 50,000 gallons per day.

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)
Attachment 9		

C. Process Flow Diagram

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

Attachment: Attachment 10

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

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

- Latitude: Click to enter text.
- Longitude: Click to enter text.

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

- Latitude: **30° 8’ 52.78”**
- Longitude: **98° 0’ 17.77”**

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 11

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

Dripping Springs High School No. 2

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
		Choose an item.	
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 45)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

Click to enter text.

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.

Click to enter text.

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: Click to enter text.

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**.

Click to enter text.

B. Buffer zones

Have the buffer zone requirements been met?

☐ Yes ☐ No

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

Click to enter text.

C. Other actions required by the current permit

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

☐ Yes ☐ No

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

Click to enter text.

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

☐ Yes ☐ No

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

2. Grit and grease processing

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

Click to enter text.

3. Grit disposal

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

☐ Yes ☐ No

If No, contact the TCEQ Municipal Solid Waste team at 512-239-2335. 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.

Click to enter text.

4. Grease and decanted liquid disposal

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-2335.

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

Click to enter text.

E. Stormwater management

1. Applicability

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

2. MSGP coverage

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

☐ Yes ☐ No

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

TXR05 Click to enter text. or TXRNE Click to enter text.

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

☐ Yes ☐ No

3. *Conditional exclusion*

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

☐ Yes ☐ No

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

Click to enter text.

4. *Existing coverage in individual permit*

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

☐ Yes ☐ No

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

Click to enter text.

5. *Zero stormwater discharge*

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

☐ Yes ☐ No

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

Click to enter text.

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

6. *Request for coverage in individual permit*

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

☐ Yes ☐ No

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

Click to enter text.

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

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☐ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
Click to enter text.

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

1. Acceptance of sludge from other WWTPs

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

☐ Yes ☐ No

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

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

Click to enter text.

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

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

☐ Yes ☐ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

If yes to any of the above, provide 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.

Click to enter text.

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

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

Is 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.

Click to enter text.

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

Is the facility in operation?

☐ Yes ☒ No

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

If yes, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). W***ater treatment facilities*** discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

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

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

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

*TPDES permits only
†TLAP permits only

Table1.0(3) – Pollutant Analysis for Water Treatment Facilities

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

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Bobby Byrd

Facility Operator's License Classification and Level: Wastewater Treatment Operator B

Facility Operator's License Number: WW0009034

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
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

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

D. Disposal site

Disposal site name: TBD

TCEQ permit or registration number: Click to enter text.

County where disposal site is located: Click to enter text.

E. Transportation method

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

Name of the hauler: TBD

Hauler registration number: Click to enter text.

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: Click to enter text.
- USDA Natural Resources Conservation Service Soil Map:

  Attachment: Click to enter text.
- Federal Emergency Management Map:

  Attachment: Click to enter text.
- Site map:

  Attachment: Click to enter text.

Discuss in a description if any of the following exist within the lagoon area. Check all that apply.

☐ Overlap a designated 100-year frequency flood plain

☐ Soils with flooding classification

☐ Overlap an unstable area

☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

Attachment: Click to enter text.

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

Click to enter text.

B. Temporary storage information

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

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

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

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

Phosphorus, mg/kg: Click to enter text.

Potassium, mg/kg: Click to enter text.

pH, standard units: Click to enter text.

Ammonia Nitrogen mg/kg: Click to enter text.

Arsenic: Click to enter text.

Cadmium: Click to enter text.

Chromium: Click to enter text.

Copper: Click to enter text.

Lead: Click to enter text.

Mercury: Click to enter text.

Molybdenum: Click to enter text.

Nickel: Click to enter text.

Selenium: Click to enter text.

Zinc: Click to enter text.

Total PCBs: Click to enter text.

Provide the following information:

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

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

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

C. Liner information

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

☐ Yes ☐ No

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

Click to enter text.

D. Site development plan

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

Click to enter text.

Attach the following documents to the application.

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

  Attachment: Click to enter text.
- Copy of the closure plan

  Attachment: Click to enter text.
- Copy of deed recordation for the site

  Attachment: Click to enter text.
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

  Attachment: Click to enter text.
- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  Attachment: Click to enter text.
- Procedures to prevent the occurrence of nuisance conditions

  Attachment: Click to enter text.

E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: Click to enter text.

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:

Click to enter text.

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

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

☐ Yes ☒ No

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

Click to enter text.

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: Click to enter text.

Section 14. Laboratory Accreditation (Instructions Page 56)

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

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

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

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

CERTIFICATION:

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

Printed Name: Holly Morris-Kuentz

Title: Superintendent

Signature: _____

Date: 6/25/25

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

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

Section 1. Justification for Permit (Instructions Page 57)

A. Justification of permit need

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

This permit is for a wastewater treatment plant for a new Dripping Springs ISD High School located in Hays County. It will have a final design flow of 0.05 MGD to serve about 2,500 students. It is planned that the new High School will eventually be served by the City of Dripping Springs South Regional Wastewater Collection and Teatement Facilities. The permit is phased to accommodate to the number of students in the early years of the school until the new High School can connect to the City's system.

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: Click to enter text.

If yes, attach correspondence from the city.

Attachment: Click to enter text.

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: Click to enter text.

2. *Utility CCN areas*

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

☐ Yes ☒ No

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

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

Attachment: Click to enter text.

3. ***Nearby WWTPs or collection systems***

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

☒ Yes ☐ No

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

Attachment: Attachment 12

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: Attachment 13

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: Click to enter text.

Section 2. Proposed Organic Loading (Instructions Page 59)

Is this facility in operation?

☐ Yes ☒ No

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

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

A. Current organic loading

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

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

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

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

Click to enter text.

B. Proposed organic loading

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

Table 1.1(1) – Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality		
Subdivision		
Trailer park – transient		
Mobile home park		
School with cafeteria and showers	0.05	350
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	0.05	
AVERAGE BOD_5 from all sources		350

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: Attachment 8

Total Suspended Solids, mg/l: Click to enter text.

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

Other: Click to enter text.

B. Interim II Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: Click to enter text.

Total Suspended Solids, mg/l: Click to enter text.

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

Other: Click to enter text.

C. Final Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: Click to enter text.

Total Suspended Solids, mg/l: Click to enter text.

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

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: Click to enter text.

☐ 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 14

Section 5. Facility Site (Instructions Page 60)

A. 100-year floodplain

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

☒ Yes ☐ No

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

Click to enter text.

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

FEMA National Flood Hazard Layer (NFHL) Viewer (FEMA Firm No. 480321 Panel 0120 Suffix G)- Attachment 15

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

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

B. Wind rose

Attach a wind rose: Attachment 16

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

A. Beneficial use authorization

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

☐ Yes ☒ No

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

B. Sludge processing authorization

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

☐ Sludge Composting

☐ Marketing and Distribution of sludge

☐ Sludge Surface Disposal or Sludge Monofill

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

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

Attach a solids management plan to the application.

Attachment: Attachment 17

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 3.0: LAND DISPOSAL OF EFFLUENT

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

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

Identify the method of land disposal:

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

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

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

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

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

Table 3.0(1) – Land Application Site Crops

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N
Bermuda grass/rye mix. Vegetative mixture of native, warm, and cool vegetation. Pastureland use.	11.48	50,000	Y

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

Table 3.0(2) – Storage and Evaporation Ponds

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
Eff. Tank-closed top		150,000 gal	65'-4 5/16" diameter 8' height	Bolted steel tank

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

Attachment: N/A

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

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

☐ Yes ☒ No

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

Click to enter text.

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

FEMA National Flood Hazard Layer (NFHL) Viewer (FEMA Firm No. 480321 Panel 0120 Suffix G)- Attachment 15

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

Click to enter text.

Click to enter text.

Section 5. Annual Cropping Plan (Instructions Page 68)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why. **Attachment**: Attachment 18

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

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

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation indicating why. **Attachment**: Attachment 4

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

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

Table 3.0(3) – Water Well Data

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
Attachment 19				

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

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

Attachment: Attachment 19

Section 7. Groundwater Quality (Instructions Page 69)

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

Attachment: N/A

Are groundwater monitoring wells available onsite? ☐ Yes ☒ No

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

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

Attachment:

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

A. Soil map

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

Attachment: Attachment 20

B. Soil analyses

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

Attachment: Attachment 21

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

Table 3.0(4) – Soil Data

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number

Section 9. Effluent Monitoring Data (Instructions Page 71)

Is the facility in operation?

☐ Yes ☒ No

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

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

Table 3.0(5) – Effluent Monitoring Data

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

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

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

Click to enter text.

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

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

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

Section 1. Administrative Information (Instructions Page 75)

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

B. Dripping Springs ISD Is the owner of the land where the treatment facility is located the same as the owner of the treatment facility?

☒ Yes ☐ No

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

Click to enter text.

C. Owner of the subsurface area drip dispersal system: Dripping Springs ISD

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

☒ Yes ☐ No

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

Click to enter text.

E. Owner of the land where the subsurface area drip dispersal system is located: Dripping Springs ISD

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

☒ Yes ☐ No

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

Click to enter text.

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

A. Type of system

☒ Subsurface Drip Irrigation

☐ Surface Drip Irrigation

☐ Other, specify: Click to enter text.

B. Irrigation operations

Application area, in acres: 11.48

Infiltration Rate, in inches/hour: 1.98

Average slope of the application area, percent (%): 5

Maximum slope of the application area, percent (%): 10

Storage volume, in gallons: 150,000

Major soil series: Bermuda grass/rye mix

Depth to groundwater, in feet: 165

C. Application rate

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

☒ Yes ☐ No

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

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

☐ Yes ☒ No

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

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

☐ Yes ☒ No

Hydraulic application rate, in gal/square foot/day: 0.1 gal/sqft/day

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

D. Dosing information

Number of doses per day: 3 per zone

Dosing duration per area, in hours: 0.7 hours per day (14 min doses)

Rest period between doses, in hours: 7.76 hr

Dosing amount per area, in inches/day: 0.1604 in/day

Number of zones: 18

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

☐ Yes ☒ No

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

Attachment: Click to enter text.

Section 3. Required Plans (Instructions Page 75)

A. Recharge feature plan

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

Attachment: Attachment 22

B. Soil evaluation

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

Attachment: Attachment 23

C. Site preparation plan

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

Attachment: Attachment 23

D. Soil sampling/testing

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

Attachment: Attachment 23

Section 4. Floodway Designation (Instructions Page 76)

A. Site location

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

☐ Yes ☒ No

B. Flood map

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

Attachment: Attachment 15

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

A. Buffer Map

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

Attachment: Attachment 7

B. Buffer variance request

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

☐ Yes ☒ No

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

Attachment: Click to enter text.

Section 6. Edwards Aquifer (Instructions Page 76)

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

WORKSHEET 7.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

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

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

Section 1. General Information (Instructions Page 92)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): Municipal Wastewater Permitting Team

Program ID: Click to enter text.

Contact Name: Matthew Udenenwu

Phone Number: 512-239-6922

2. Agent/Consultant Contact Information

Contact Name: Lauren Barzilla

Address: 235 Ledge Stone Drive

City, State, and Zip Code: Austin, TX 78737

Phone Number: 512-432-1000

3. Owner/Operator Contact Information

☒ Owner ☐ Operator

Owner/Operator Name: Dripping Springs ISD

Contact Name: Click to enter text.

Address: Click to enter text.

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

Phone Number: Click to enter text.

4. Facility Contact Information

Facility Name: Dripping Springs High School No. 2

Address: Click to enter text.

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

Location description (if no address is available): Located at Darden Hill Road next to the existing Cypress Springs Elementary School in Driftwood, Texas.

Facility Contact Person: Click to enter text.

Phone Number: Click to enter text.

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

Latitude: 30° 08' 52.78"

Longitude: 98° 00' 17.77"

Method of determination (GPS, TOPO, etc.): State Plan Coordinates

Attach topographic quadrangle map as attachment A.

6. **Well Information**

Type of Well Construction, select one:

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

Number of Injection Wells: Click to enter text.

7. **Purpose**

Detailed Description regarding purpose of Injection System:

Disposal of Treated Effluent from the Dripping Springs High School No. 2 via drip irrigation areas (SADDS).

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

8. **Water Well Driller/Installer**

Water Well Driller/Installer Name: N/A

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

Phone Number: Click to enter text.

License Number: Click to enter text.

Section 2. Proposed Down Hole Design

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

Table 7.0(1) – Down Hole Design Table

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

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

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

System(s) Dimensions: Click to enter text.

System(s) Construction: Click to enter text.

Section 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: N/A

2. Receiving Formation Name of Injection Zone: Above Glen Rose

3. Well/Trench Total Depth: 6”

4. Surface Elevation: Click to enter text.

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

6. Injection Zone Depth: Click to enter text.

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

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

Name: Click to enter text.

Thickness: Click to enter text.

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

Attach as Attachment E.

9. Horizontal and Vertical extent of contamination and injection plume

Attach as Attachment F.

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

Attach as Attachment G.

11. Injection Fluid Chemistry in PPM at point of injection

Attach as Attachment H.

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

13. Maximum injection Rate/Volume/Pressure: 0.1 GPD/SF

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

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

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

17. Sampling frequency: N/A

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

Section 5. Site History

1. Type of Facility: Disposal of Treated Effluent
2. Contamination Dates: N/A
3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations (attach as Attachment L): N/A
4. Previous Remediation (attach results of any previous remediation as attachment M): N/A

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

Class V Injection Well Designations

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

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DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 1
CORE DATA FORM

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 603829425		**RN**

SECTION II: Customer Information

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

☒ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

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

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* *If new Customer, enter previous Customer below:*

Dripping Springs Independent School District

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
		74-6003099	

11. Type of Customer:

☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

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

12. Number of Employees

☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☒ 501 and higher

13. Independently Owned and Operated?

☒ **Yes** ☐ **No**

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

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

303 Sportsplex Dr.

City	Dripping Springs	**State**	TX	**ZIP**	78620	**ZIP + 4**	

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	jaime.dydalewicz@dsisdtx.us

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 858-3013		( ) -

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.)*

Dripping Springs Independent School District

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

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

25. Description to Physical Location:	Located on Darden Hill Road next to the existing Cypress Springs Elementary School in Driftwood, Texas.

26. Nearest City	State	Nearest ZIP Code
Dripping Springs	TX	78620

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

27. Latitude (N) In Decimal:	30.147994		28. Longitude (W) In Decimal:	98.004936	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	08	52.78	98	00	17.77

29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)
4952			

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

Provide WWT and drip irrigation for ISD

34. Mailing Address:	303 Sportsplex Dr							
	City	Dripping Springs	State	TX	ZIP	78620	ZIP + 4	

35. E-Mail Address:	jaime.dydalewicz@dsisdtx.us

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(512) 858-3013		( ) -

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:

SECTION IV: Preparer Information

40. Name:	Lauren Barzilla	**41. Title:**	P.E.

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 432-1000		**(** 512 **)** 432-1015	lauren.barzilla@burgessniple.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:	Burgess & Niple, Inc.	**Job Title:**	P.E.	
Name *(In Print):*	Lauren Barzilla		**Phone:**	**(** 512 **)** 432- **1000**
Signature:			**Date:**	6/30/2025

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 2
PLAIN LANGUAGE SUMMARY

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

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

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

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

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

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

Dripping Springs Independent School District (CN6024912) proposes to operate Dripping Springs Wastewater Treatment Plant and Drip Irrigation System ( ), a wastewater treatment plant. The facility will be located at Darden Hill Road, next to the existing Cypress Springs Elementary School, in Driftwood, Hays County, Texas 78619. This application is for a new facility to discharge 50,000 gallons per day of treated domestic wastewater in four proposed phases.

Discharges from the facility are expected to contain BOD and TSS. The point of discharge is located at the end of the tubing where the treated wastewater exits to the soil. This will be treated by an influent bar screen unit, aeration and clarifier system, then followed by a digester and disinfected with a chlorine contact tank before it reaches the discharge point. Any sludge will be removed and disposed of by a licensed hauler.

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

AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES

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

Dripping Springs Independent School District (CN6024912) propone operar la ciudad de Dripping Springs planta de tratamiento de aguas residuales y sistema de irrigación (RN####), una planta de tratamiento de aguas residuales. La instalación estará ubicada en Darden Hill Road ex proximidad a la escuela primaria de Cypress Springs, en Driftwood, TX, Condado de Hays, Texas 78619. Esta aplicación es para una nueva instalación que descargará 50,000 galones al día de agua domésticas tratadas en cuatro fases propuestas.

Se espera que las descargas de la instalación contengan BOD y TSS. Agua residual doméstica. estará tratado por un sistema de clarificación y aireación. Luego el agua pasa por un digestor antes de llegar a desinfección a manera de contacto de cloruro.

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 3
PUBLIC INVOLVEMENT PLAN FORM

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.

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.

Dripping Springs Independent School District (CN601259435) proposes to operate Dripping Springs High School No. 2 (RN112240411), a wastewater treatment plant and drip irrigation system. The facility will be located at 11091 Darden Hill Road, in Driftwood, Hays County, Texas 78619. This application is for a new facility to dispose of an average flow not to exceed 50,000 gallons per day of treated domestic wastewater via public access subsurface drip irrigation system with a minimum area of 11.48 acres. This permit will not authorize the discharge of pollutants into water in the state.

Land application of domestic wastewater from the facility are expected to contain BOD and TSS. Additional pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application. Domestic wastewater is treated by an influent bar screen unit, aeration and clarifier system, then followed by a digester and disinfected with a chlorine contact tank. Any sludge will be removed and disposed of by a licensed hauler. In addition, the facility includes a storage tank that equals at least three days of the daily average flow.

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.

Dripping Springs ETJ

(City)

Hays

(County)

U.S. Census Bureau

(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

96.3%

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

$56,826

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

White alone: 81.8%, Black alone: 0.9%, American Indian and Alaska Native alone: 0.6%, Asian alone: 8.7%, Two or More Races: 7.1%, Hispanic or Latino: 12.7% White alone, not Hispanic or Latino 75.1%

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

Language other than English spoken at home: 11.7%

(e) Languages commonly spoken in area by percentage

Spanish

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

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

☐ Yes ☐ No

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

☐ Yes ☐ No

If Yes, please describe.

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

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

☐ Yes ☐ No

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

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

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

☐ TCEQ Regional Office ☐ TCEQ Central Office

☐ Public Place (specify)

Section 7. Voluntary Submittal

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

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

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

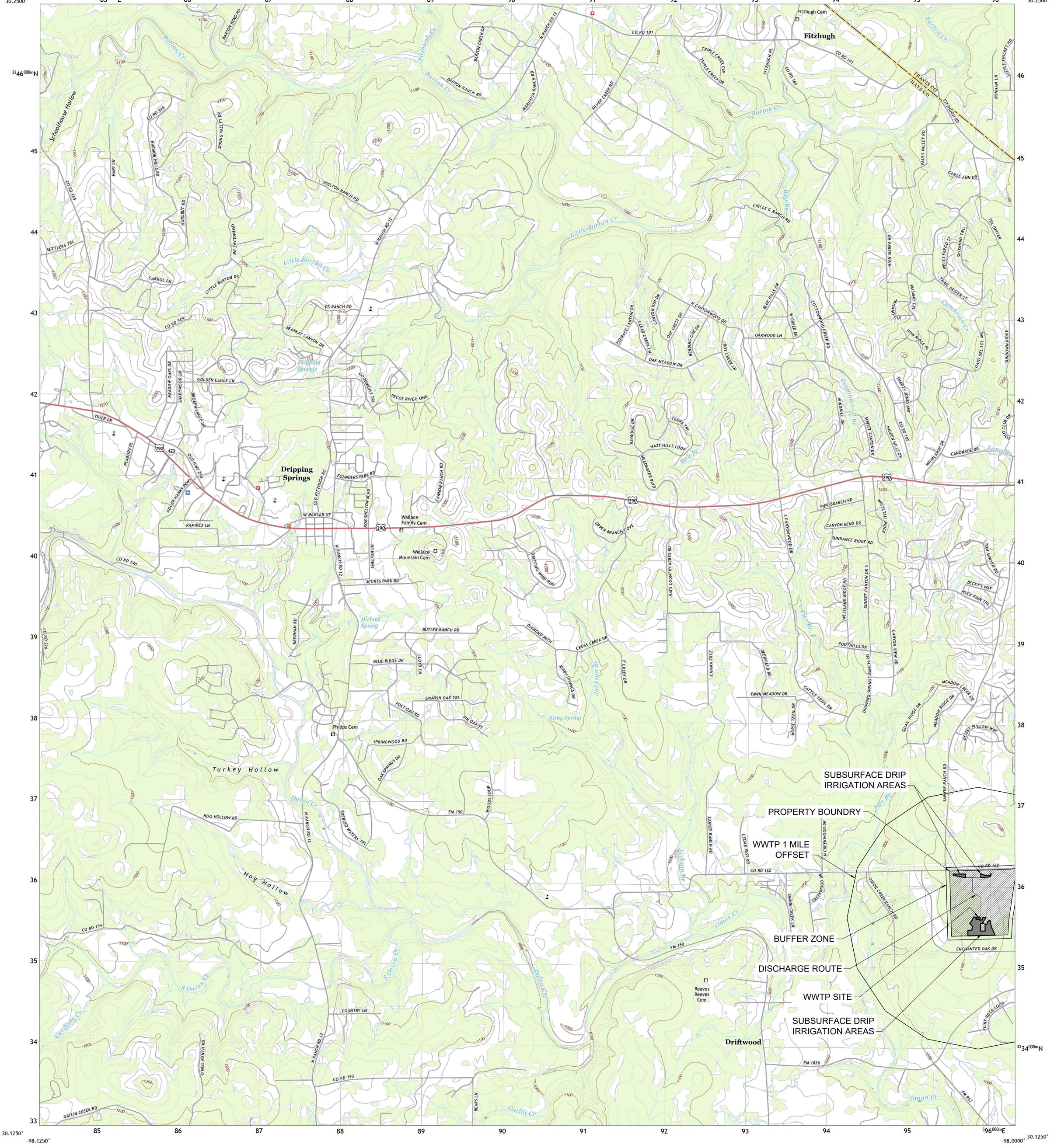
DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 4
USGS MAP

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

The National Map US Topo

DRIPPING SPRINGS QUADRANGLE
TEXAS
7.5-MINUTE SERIES



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

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, September 2016 - November 2016
Roads.....U.S. Census Bureau, 2015 - 2019
Names.....GNIS, 1979 - 2022
Hydrography.....National Hydrography Dataset, 2002 - 2018
Contours.....National Elevation Dataset, 2019
Boundaries.....Multiple sources; see metadata file 2019 - 2021

Wetlands.....FWS National Wetlands Inventory Not Available

MN
GN
3°54'
69 MILS
0°28'
8 MILS
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
NU
Grid Zone Designation
14R

SCALE 1:24 000

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

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

TEXAS
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

ADJOINING QUADRANGLES
1 Hammotts Crossing
2 Shinglo Hills
3 Boo Cavo
4 Honly
5 Signal Hill
6 Rough Hollow
7 Driftwood
8 Mountain City

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

MSN. 7643016939693

DRIPPING SPRINGS, TX
2022

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

The National Map US Topo

SIGNAL HILL QUADRANGLE
TEXAS
7.5-MINUTE SERIES

-98.0000° 30.2500° -97.8750° 30.1250°

NU PU

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R

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Roads.....U.S. Census Bureau, 2015 - 2019
Names.....GNIS, 1979 - 2022
Hydrography.....National Hydrography Dataset, 2002 - 2018
Contours.....National Elevation Dataset, 2019
Boundaries.....Multiple sources; see metadata file 2019 - 2021

Wetlands.....FWS National Wetlands Inventory Not Available

MN
GN
3°50'
68 MILS
0°32'
9 MILS
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
NU PU
Grid Zone Designation
14R

SCALE 1:24 000

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

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

TEXAS
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

ADJOINING QUADRANGLES
1 Shingle Hills
2 Boo Cavo
3 Austin West
4 Dripping Springs
5 Oak Hill
6 Driftwood
7 Mountain City
8 Buda

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

NSN 7643016398275

SIGNAL HILL, TX
2022

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 5
LANDOWNER MAP

PLOTTED: 5/28/2025 8:30:29 AM

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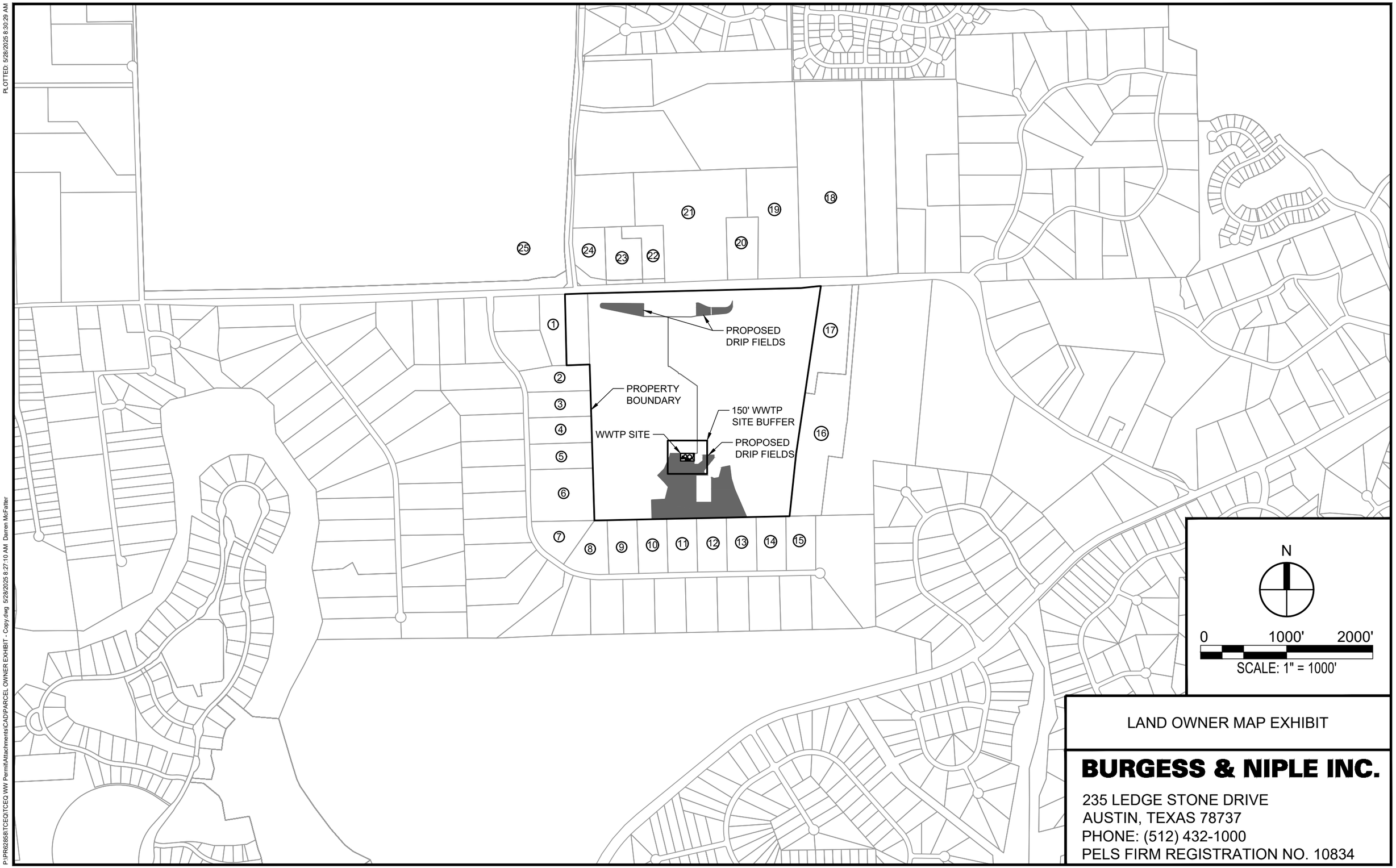

LAND OWNER MAP EXHIBIT

BURGESS & NIPLE INC.

235 LEDGE STONE DRIVE
AUSTIN, TEXAS 78737
PHONE: (512) 432-1000
PELS FIRM REGISTRATION NO. 10834

	Property Owner	Mailing Address
1	Cooper Charles & Linda R	2054 Darden Hill Rd Driftwood, TX 78619-8800
2	Graham Margaret D & Hoermann William	301 Enchanted Oak Dr Driftwood, TX 78619
3	Williams Gary D & Huston Janet M	355 Enchanted Oak Dr Driftwood, TX 78619
4	Pena Jose O & Annie C	415 Enchanted Oak Dr Driftwood, TX 78619
5	Miller Steven M & Anderson Raymond B Management Trust - Miller Steven M (Ind & Trustee) & Anderson Raymond B (Ind & Trustee)	491 Enchanted Oak Dr Driftwood, TX 78619-4221
6	Huffman, Sherry J	595 Enchanted Oak Dr Driftwood, TX 78619-4235
7	Crust Rise In Peace, LLC	12005 W Highway 290 Austin, TX 78737-4235
8	Taylor Larry F & Kay	801 Enchanted Oaks Dr Driftwood, TX 78619
9	Kubena Larry A	895 Enchanted Oak Dr Driftwood, TX 78619-4226
10	Fitz Family Trust - Steven D Fitz & Cynthia B Fitz Trustees	915 Enchanted Oak Dr Driftwood, TX 78619-4250
11	Hammonds, Courtney Jane & Michael David	999 Enchanted Oaks Dr Driftwood, TX 78619-4250
12	Porter, Alyda & Stephen	1075 Enchanted Oak Dr Driftwood, TX 78619
13	Weeden El Rose	1175 Enchanted Oak Dr Driftwood, TX 78619
14	Soltys Robert G & Norma J	1241 Enchanted Oak Dr Driftwood, TX 78619-4317
15	Bowling Family Trust - Bowling Ronald & Mary Ann Trustees	1275 Enchanted Oak Dr Driftwood, TX 78619-4317
16	Adams, Marilyn	3204 Thousand Oaks Dr Austin, TX 78746-7869
17	Life Family Inc	8901 Highway 71 W Austin, TX 78735
18	Brooks, Sammy (Sam) Ollie	10600 Darden Hills Rd Austin, TX 78737-8503
19	Peters Joe M & Marsha W	8316 Blazyk Dr Austin, TX 78737
20	Burba, Edward Thomas	10800 Darden Hills Rd Austin, TX 78737-8525
21	Burba Edward T & Burba Sharon L	11000 Darden Hill Rd Austin, TX 78737-9280
22	Burba Sharon Louise & Deangelo John Thomas	11000 Darden Hill Rd Austin, TX 78737-9280
23	Burba Sharon Louise & Deangelo John Thomas	11000 Darden Hills Rd Austin, TX 78737-9280
24	Burba Sharon Louise & Deangelo John Thomas	11000 Darden Hills Rd Austin, TX 78737-9280
25	OC Ranch LTD	39423 Lago Dr Magnolia, TX 77354-4489

Cooper Charles & Linda R

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Pena Jose O & Annie C

415 Enchanted Oak Dr Driftwood, TX 78619

Crust Rise In Peace, LLC

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1175 Enchanted Oak Dr Driftwood, TX 78619

Adams, Marilyn

3204 Thousand Oaks Dr Austin, TX 78746-7869

Peters Joe M & Marsha W

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Burba Sharon Louise & Deangelo John Thomas

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Burba Edward T & Burba Sharon L

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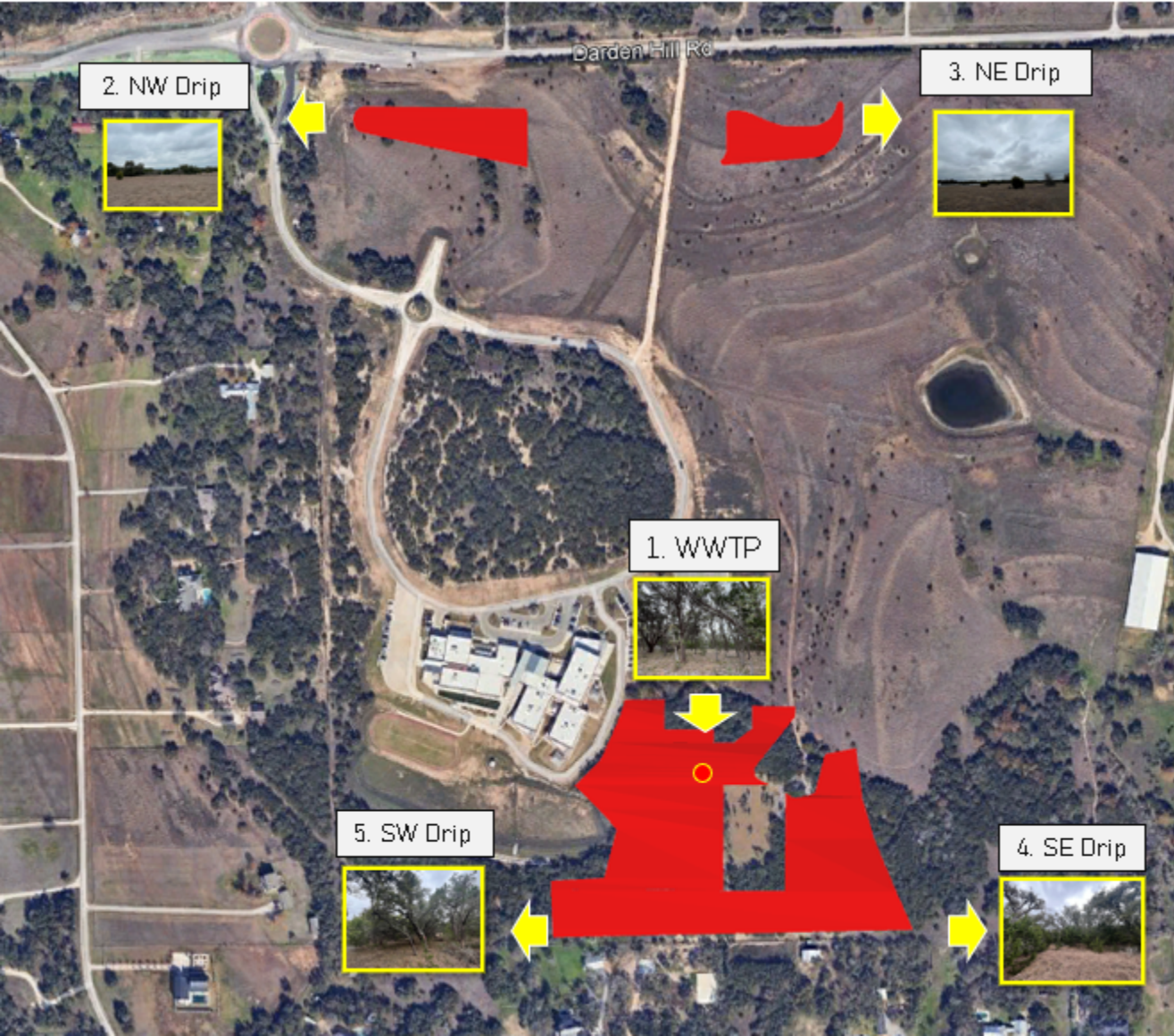
Burba Sharon Louise & Deangelo John Thomas

11000 Darden Hills Rd Austin, TX 78737-9280

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 6
DISPOSAL SITE MAP


Darden Hill Rd
2. NW Drip
3. NE Drip
1. WWTP
5. SW Drip
4. SE Drip

1. Proposed Wastewater Facility

Photo taken facing North
(30° 8’ 52.78” N, 98° 0’ 17.77”W)

2. Northwest Drip Field

Photo taken facing North
(30° 9’ 10.32” N, 98° 0’ 25.20”W)

3. Northeast Drip Field

Photo taken facing North
(30° 9’ 9.97” N, 98° 0’ 14.84”W)

4. Southeast Drip Field

Photo taken facing South
(30° 8’ 48.65” N, 98° 0’ 12.70”W)

5. Southwest Drip Field

Photo taken facing South
(30° 8’ 48.57” N, 98° 0’ 18.07”W)

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 7
BUFFER ZONE MAP

PLOTTED: 5/28/2025 8:38:52 AM

DARDEN HILL RD

PROPOSED DRIP
FIELD, TYP

PROPERTY BOUNDARY

1903'

150' BUFFER ZONE

1189'

1033'

PROPOSED DRIP
FIELD, TYP

WWTP SITE

673'

N

0 150' 300' 600'

SCALE: 1" = 300'

BUFFER ZONE EXHIBIT

BURGESS & NIPLE INC.

235 LEDGE STONE DRIVE
AUSTIN, TEXAS 78737
PHONE: (512) 432-1000
PELS FIRM REGISTRATION NO. 10834

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DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 8
PROPOSED PERMIT PHASING

Dripping Springs I.S.D.

Wastewater Treatment Plant

Proposed Permit Phasing

Permit Phase	Design Flow (GPD)	2 Hr. Peak Flow (GPD)	Outfall1 Subsurface Irrigation Phase (GPD)	Total Irrigation (GPD)	Proposed Effluent Quality and Disinfection (mg/L)	Estimated Construction Start Date	Estimated Waste Disposal Start Date
Initial	35,000	140,000	35,000	35,000	Biochemical Oxygen Demand: 20 Total Suspended Solids: 20	August 2027	August 2028
Interim I	40,000	160,000	5,000	40,000	Biochemical Oxygen Demand: 20 Total Suspended Solids: 20	May 2030	August 2030
Interim II	45,000	180,000	5,000	45,000	Biochemical Oxygen Demand: 20 Total Suspended Solids: 20	May 2031	August 2031
Final	50,000	200,000	5,000	50,000	Biochemical Oxygen Demand: 20 Total Suspended Solids: 20	May 2033	August 2033

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 9
TREATMENT UNITS

Initial Phase: 35,000 GPD Proposed Unit Features		
Treatment Unit Type	Number of Units	Dimensions (LxWxD)
Aeration Basin	1	50’x12’x11.5’
Digester	1	16’x12’x11.67’
Clarifier	1	18’ dia. x 10’ SWD
Disinfection	1	4’ x 12’ x 8’

Final Phase: 50,000 GPD Proposed Unit Features		
Treatment Unit Type	Number of Units	Dimensions (LxWxD)
Aeration Basin	2	50’x12’x11.5’
Digester	2	16’x12’x11.67’
Clarifier	1	18’ dia. x 10’ SWD
Disinfection	1	4’ x 12’ x 8’

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 10
PROCESS FLOW DIAGRAM

SYMBOL LEGEND

- CHECK VALVE
- PROCESS VALVE
- PUMP
- BLOWER

BLOWERS

PROCESS AIR

SLUDGE AIRLIFT

CLARIFIER

PROCESS AIR

RETURN/WASTE ACTIVATED

SCUM RETURN (INTERMITTENT)

MIXED LIQUOR

STILLING WELL

6" GRAVITY WW LINE

WASTEWATER FROM INFLUENT LIFT STATION

WET WELL

AERATION BASIN

SCUM AIRLIFT

WASTE ACTIVATED SLUDGE

HEADWORKS
INCLINED STATIC SCREEN

LIQUID CHLORINE CHEMICAL FEED SYSTEM WITH METERING PUMPS (USING DRUMS OR TOTES) (ON/OFF WITH LIFT STATION AND WITH EFFLUENT FLOWPACE METER)

CLARIFIER EFFLUENT

CHLORINE SOLUTION

WASTE SLUDGE

AEROBIC DIGESTER

CHLORINE CONTACT

FLUSH RETURN FROM DRIP IRRIGATION

OFFSITE DISPOSAL BY OTHERS

LICENSED SLUDGE HAULER

FINAL EFFLUENT

EFFLUENT HOLDING TANK

IRRIGATION PUMPS

TO DRIP IRRIGATION

DRIP IRRIGATION PHASING

INITIAL PHASE: 35,000 GPD
DRIP IRRIGATION (8.03 ACRES)

INTERIM PHASE 1: 40,000 GPD
DRIP IRRIGATION (9.18 ACRES)

INTERIM PHASE 2: 45,000 GPD
DRIP IRRIGATION (10.33 ACRES)

FINAL PHASE: 50,000 GPD
DRIP IRRIGATION (11.48 ACRES)

PROCESS FLOW DIAGRAM
EXHIBIT

BURGESS & NIPLE INC.

235 LEDGE STONE DRIVE
AUSTIN, TEXAS 78737
PHONE: (512) 432-1000
PELS FIRM REGISTRATION NO. 10834

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 11
SITE DRAWING

DARDEN HILL RD

PROPOSED DRIP FIELD, TYP

PROPERTY BOUNDARY

1903'

1189'

1033'

673'

WWTP SITE

PROPOSED DRIP FIELD, TYP

N

0 150' 300' 600'

SCALE: 1" = 300'

SITE PLAN EXHIBIT

BURGESS & NIPLE INC.

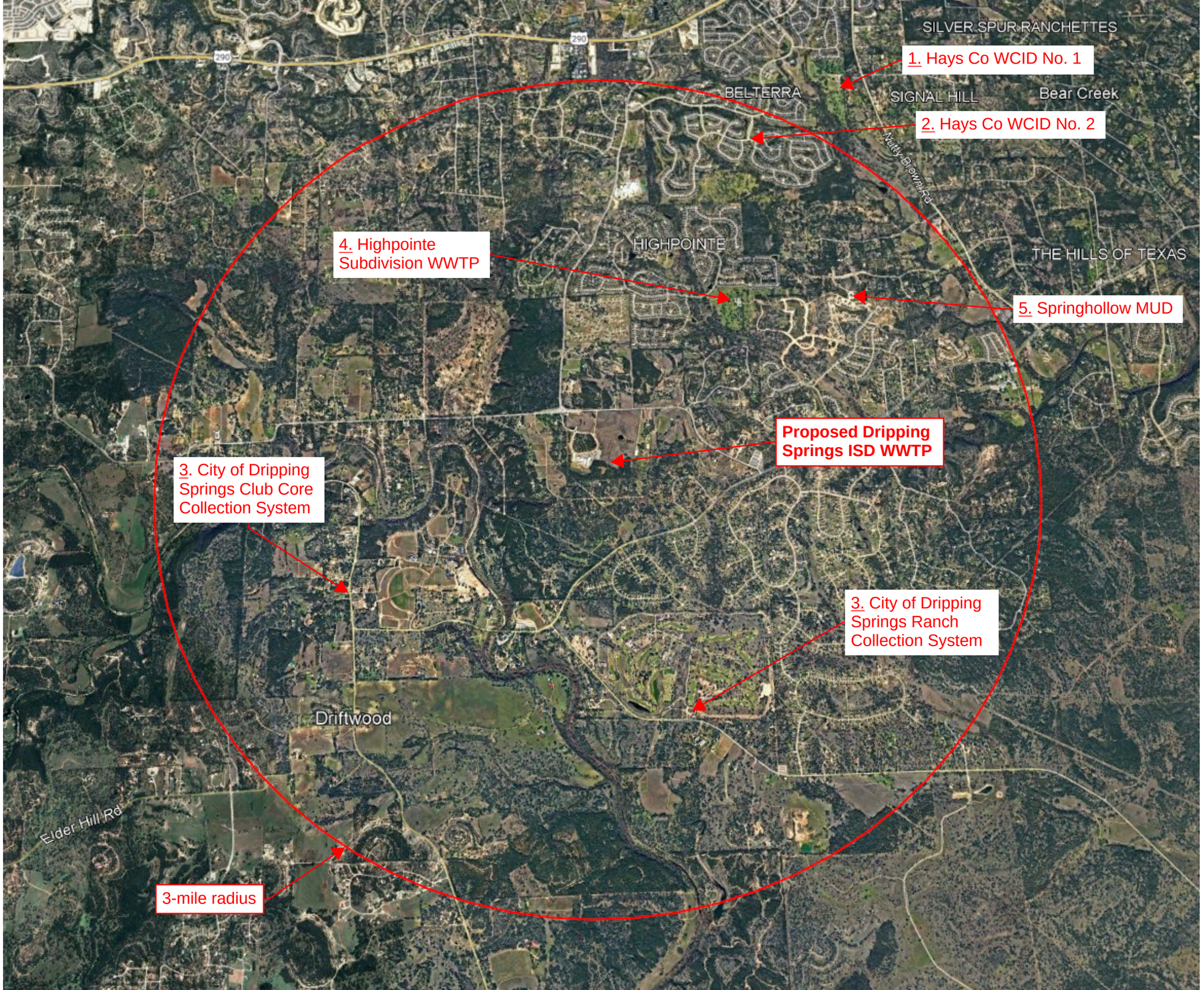
235 LEDGE STONE DRIVE
AUSTIN, TEXAS 78737
PHONE: (512) 432-1000
PELS FIRM REGISTRATION NO. 10834

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 12
NEARBY WWTPS OR COLLECTION SYSTEMS

Nearby WWTPs or Collection Systems

Facility / Collection System	Permittee Name	Permit Number (TCEQ)	Mailing Address	Area Map	Correspondence
Hays County WCID 1 WWTP	Hays County Water and Improvement District	WQ0014293001	Permit 3321 Bee Caves Rd Ste 203 West Lake Hills, TX 78746 -7067	1	1
Hays County WCID 2 WWTP				2	
City of Dripping Springs South Regional WWTP	City of Dripping Springs	WQ0014488001 WQ0014488003	Permit P.O. Box 384 Dripping Springs, TX 78620-0384	3	2
Highpointe Subdivision WWTP	Hays County Municipal Utility District No. 5	WQ0014358001	Permit 100 Congress Ave Ste 1300 Austin, TX 78701-2744	4	3
Springhollow MUD	Springhollow Municipal Utility District			5	


SILVER SPUR RANCHETTES
1. Hays Co WCID No. 1
BELTERRA
SIGNAL HILL
Bear Creek
2. Hays Co WCID No. 2
Nutty Brown Rd
4. Highpointe Subdivision WWTP
HIGHPOINTE
THE HILLS OF TEXAS
5. Springhollow MUD
Proposed Dripping Springs ISD WWTP
3. City of Dripping Springs Club Core Collection System
3. City of Dripping Springs Ranch Collection System
Driftwood
Elder Hill Rd
3-mile radius

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 13
FACILITY CORRESPONDENCE

BURGESS & NIPLE

Firm # 10834 235 Ledge Stone Drive Austin, TX 78737| 512.432.1000| burgessniple.com

June 26, 2025

Dripping Springs Independent School District (ISD) Wastewater Treatment Plant (WWTP)

Subject: Dripping Springs ISD WWTP Application for New Permit

Address: Located on Darden Hill Road next to the existing Cypress Springs Elementary School in Driftwood, TX

Dear TCEQ Wastewater Discharge Permit Holder:

The Dripping Springs ISD is preparing an application for a new Texas Land Application Permit (TLAP). The proposed service area and WWTP location are provided on the enclosed map.

We are in the process of applying for an authorized flow of 0.05 million gallons per day (MGD) and plan to begin construction by August 2027 with wastewater service needing to commence by August 2028.

We are required to contact all existing permittees within a three-mile radius of the Proposed WWTP location to request service. Do you have the capacity and are you willing to provide service for the requested 0.05 MGD? If you do not have the current capacity, but are willing to expand your facility to provide service, will you be able to provide service within the time frame needed? If you are willing to provide service, please provide the estimated costs and service rates in a written response. Please provide a response indicating if 0.05 MGD of wastewater treatment capacity in your facility is available and, if so, under what terms. A written reply on a copy of this letter will be adequate. You may email your response to lauren.barzilla@burgessniple.com. Please feel free to call me at (512) 432-1000.

Sincerely,

Lauren Barzilla, P.E.

BURGESS & NIPLE

Firm # 10834 235 Ledge Stone Drive Austin, TX 78737| 512.432.1000| burgessniple.com

Date of Reply: _____

Is capacity available to accommodate 0.05 MGD? _____

If existing facilities are not adequate, is an expansion feasible? _____

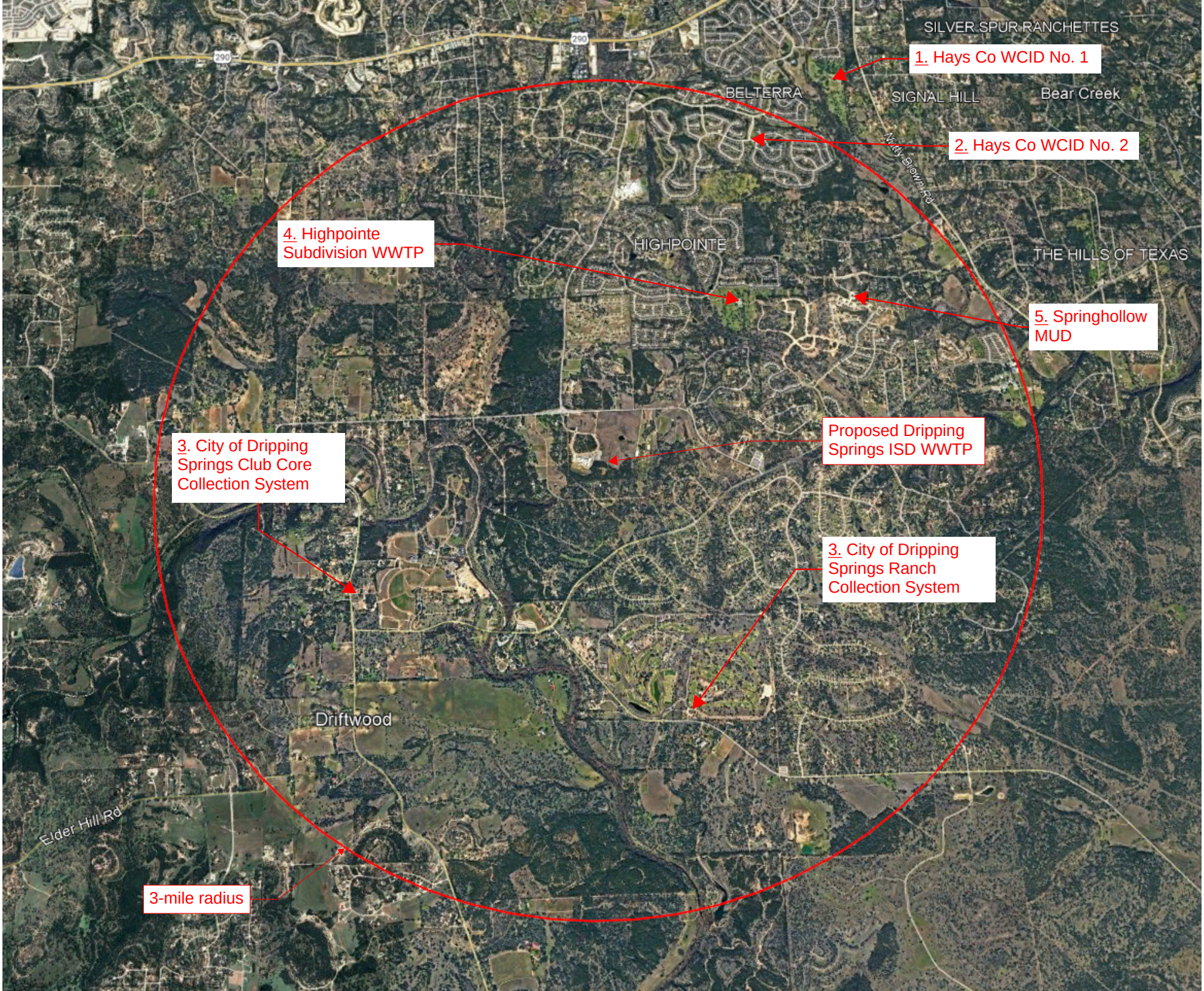
If yes to either question, please provide in writing the terms for service:

_____

_____

Name and Title: _____

Signature: _____ Date: _____


SILVER SPUR RANCHETTES
1. Hays Co WCID No. 1
BELTERRA
SIGNAL HILL
Bear Creek
2. Hays Co WCID No. 2
Nutty Brown Rd
4. Highpointe Subdivision WWTP
HIGHPOINTE
THE HILLS OF TEXAS
5. Springhollow MUD
Proposed Dripping Springs ISD WWTP
3. City of Dripping Springs Club Core Collection System
3. City of Dripping Springs Ranch Collection System
Driftwood
Elder Hill Rd
3-mile radius
290
290

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 14
DESIGN CALCULATIONS

DSISD High School

WWTP Design Calculations

Final Phase - 0.035 MGD WASTEWATER TREATMENT PLANT DESIGN
EXTENDED AERATION

BASIC DESIGN PARAMETERS:

Initial Phase:

Design Flow:	0.0350	MGD		
2-Hour Peak Flow (4 x Design Flow):	0.140	MGD		
	97	GPM		
BOD_5:	350	mg/l	102	lbs/day
TSS:	200	mg/l	58	lbs/day

PRELIMINARY TREATMENT:

Manually cleaned bar screen.

AERATION BASIN

Extended Aeration Basins

Maximum Aerator Organic Loading = 15 lbs. BOD_5/ 1000cf/day	15	lbs.BOD_5/1000cf/day
Required Aeration Volume (@15 lb influent BOD_5/1,000 cf):	6,806	cf
		cf

Proposed Aeration Basin Dimensions:

Length	50	ft
Width	12.0	ft
Depth	11.5	ft
Volume Provided	6,900	cf

ENHANCED SECONDARY CLARIFICATION:

Essential TCEQ Requirements:

Maximum Velocity thru Inlet Stilling Well - 0.15 ft/sec	0.15	ft/sec
Weir Loading for peak flows of 1.0 MGD or less: < 20,000 g/lf/day	20,000	gal/lf/day
Weir Loading for peak flows > 1.0 MGD: < 30,000 g/ft/day	30,000	gal/lf/day
Solids Loading of floor: < 50 lbs. SS/ft^2/day		
Minimum Clarifier Side Water Depth (SWD) = 8 ft. - Use 10 ft for Design		
When Diameter ≥ ## ft., Minimum Clarifier Side Water Depth (SWD) =	10 ft	
Depth including Freeboard	11 ft	
For Secondary with Clarifiers Having SWD ≥ 10 ft.:		
Maximum Surface Loading Rate @ Peak 2-Hr Flow =	800 g/day/sf	
Maximum Surface Loading Rate @ Design Flow =	600 g/ft/day	
Minimum Detention Time @ Peak 2-Hr Flow =	2.2 hours	
Minimum Detention Time @ Design Flow =	3 hours	

Initial Phase:

Required Volume (@ 2.2 Hr. D.T. for 2-Hr Peak Flow):	12,833	gal.	1,716	cf
Required Surface Area (overflow rate of 800 g/sf/day @ peak flow):			175	sf
Required Volume (@ 800 g/sf/day @ peak flow w/ 10' SWD)			1,750	cf
Required Volume (@ min detention time @ design flow):			4,375	gal
			585	cf
Minimum diameter (Volume x 4 ÷10 x π)$^{0.5}$			14.93	ft.
Minimum Weir Length Required			7	ft
Volume Provided:			2,545	cf
Diameter Provided (18'>min. diameter required):			18	ft.

DISINFECTION USING CHLORINE:

Essential TCEQ Requirements:

Minimum Detention Time @ Peak 2-Hr Flow = 20 Minutes

Rapid Mixing with G > 500/sec.

Initial Phase:

Required Volume @ 20 Min. D. T. For Peak 2-Hr. Flow:	1,944 gal.	260 cf

Proposed Chlorine Dimensions:

Length	4 ft
Width	12.0 ft
Depth	8.0 ft
Volume Provided	384 cf

CHLORINE FEEDER CAPACITY

Probable Chlorine Dose 7 to 9 mg/l

Initial Phase:

Chlorine Feed Rate (Use 9 mg/l to Averge Flow of 0.162 MGD):	2.6 PPD
Chlorine Feed Rate (Use 9 mg/l to Peak Flow of 0.648 MGD):	0.4 PPH

WASTE SLUDGE PRODUCTION:

Assume 94.3% BOD_5 Removal & 90% SS Removal[1]:		0.94286	0.9000
Assume 35% of BOD_5 is Removed with SS Removal[2]:	0.35	0.65	
Assume 0.5 lbs SS Produced per lb BOD_5 Removed[2]:		0.5	
Assume 80% of Secondary SS are Volatile[2]:		0.8	
Assume 65% of Primary SS are Volatile[2]:		0.65	
Assume 30% Reduction of Raw SS in Aeration	0.3	0.7	
Assume 1.25% SS Concentration in Waste Sludge[2]:		0.0125	
Allow VSS loading of 0.055 lb/cf[2]:		0.055	

1. Based on Required Effluent Quality of 20/20 mg/l - BOD_5/SS.
2. A reasonable estimate of BOD^5 Removal from Wastewater Engineering by Metcalf & Eddy, Ten State Standards, and Others.

Initial Phase:	Percent of Interim Phase Flow			
	100%	75%	50%	25%
BOD Removed (lbs BOD/day)	96	72	48	24
Primary SS Removed (lb SS/day):	53	39	26	13
Primary VSS Removed (lb VSS/day):	34	26	17	9
Secondary SS Produced from BOD_5 Removed (lb SS/day):	31	23	16	8
Secondary VSS Produced from BOD_5 Removed (lb VSS/day):	25	19	13	6
Total SS Produced (lb SS/day):	68	51	34	17
Total VSS Produced (lb VSS/day):	59	44	30	15
Total SS Wasted (lb SS/day)	68	51	34	17
Total Volume SS Wasted (gal/day)	653	489	326	163

SLUDGE DIGESTION USING AEROBIC DIGESTION:

Essential TNRCC Requirements:

I. Minimum Volume = 20 cf/lb of BOD_5.

II. Minimum Retention Time = 15 days.

Other accepted Design Requirements:

III. Volatile SS Loading (Wastewater Engineering by Metcalf & Eddy): 0.1 lbs/cf

Initial Phase:

Required Volume (Based on 20 cf/lb. BOD_5):	2,042	cf
Required Volume (Based on 15 Days Sludge D. T.)	1,309	cf
Required Volume (VSS Loading)	592	cf
Volume Provided:	2,241	cf

DIGESTER SLUDGE DETENTION TIME:

Initial Phase:

Hydraulic Retention Time:	25.68	Days

DIGESTER SLUDGE REMOVAL SCHEDULE:

Based on 40% reduction of SS in Aerobic Digestion 0.6

Assume Concentration of Sludge in Digester at 1.5%

	Percent of Phase Flow			
	100%	75%	50%	25%
Initial Phase:				
Days between Sludge Removal:	51	68	102	205

AIR REQUIREMENTS:

AERATION USING COARSE-BUBBLE DIFFUSED AERATION:

Essential TNRCC Requirements for Nitrification:

≥ 2.2 lbs. O_2/lb. BOD_5

≥ 3200 scf Air/lb. BOD_5 (Based on 4.0% O_2 T.E.)(per manufacturer)

≥ 2616 scf Air/lb. BOD_5 (By Ashbrook Certified Efficiency of 7.5% O_2 T.E. clean water at 8.5 ft Submergence)
{(1lb. BOD_5 x2.2 lbs. O_2/lb. BOD_5)/(0.01725 lbs. O_2/cf air x 0.075 x 0.65 transfer efficiency)=2616 scfm/lb BOD_5}

Initial Phase:

Required Air Volume (@ 4.0% O_2 T.E.):	227	scfm
Required Air Volume (@ 7.5% O2 T.E. @ 8.5 ft. submergence and 30 scfm, by AUC):	185	scfm

AEROBIC DIGESTION:

Essential TNRCC Requirements:

≥ 30 scfm/1,000 cf of Digester Volume 30 scfm/1000cf

Initial Phase:

Required Air Volume: 67 scfm

AIR LIFT PUMPING (Manufacuter Recommendation):

Initial Phase:

Required Air Volume: 25 scfm

CHLORINE BASIN AGITATION:

= 5 scfm/1,000 cf of Basin Volume 20 scfm/1000cf

Initial Phase:

Required Air Volume: 8 scfm

MINIMUM TOTAL AIR REQUIRED:

Interim Phase: (Based on Manf. Certified 9.3% O2 T.E.) 327 scfm

DSISD High School

WWTP Design Calculations

Final Phase - 0.05 MGD WASTEWATER TREATMENT PLANT DESIGN
EXTENDED AERATION

BASIC DESIGN PARAMETERS:

Final Phase:

Design Flow:	0.0500	MGD		
2-Hour Peak Flow (4 x Design Flow):	0.200	MGD		
	139	GPM		
BOD_5:	350	mg/l	146	lbs/day
TSS:	200	mg/l	83	lbs/day

PRELIMINARY TREATMENT:

Manually cleaned bar screen, inclined static screen

AERATION BASIN

Extended Aeration Basins

Maximum Aerator Organic Loading = 15 lbs. BOD_5/ 1000cf/day	15	lbs.BOD_5/1000cf/day
Required Aeration Volume (@15 lb influent BOD_5/1,000 cf):	9,722	cf
		cf

Proposed Aeration Basin Dimensions:

Length	50	ft
Width	12.0	ft
Depth	11.5	ft
Volume Provided (2 basins)	13,800	cf

ENHANCED SECONDARY CLARIFICATION:

Essential TCEQ Requirements:

Maximum Velocity thru Inlet Stilling Well - 0.15 ft/sec	0.15	ft/sec
Weir Loading for peak flows of 1.0 MGD or less: < 20,000 g/lf/day	20,000	gal/lf/day
Weir Loading for peak flows > 1.0 MGD: < 30,000 g/ft/day	30,000	gal/lf/day
Solids Loading of floor: < 50 lbs. SS/ft^2/day		
Minimum Clarifier Side Water Depth (SWD) = 8 ft. - Use 10 ft for Design		
When Diameter ≥ ## ft., Minimum Clarifier Side Water Depth (SWD) =	10 ft	
Depth including Freeboard	11 ft	
For Secondary with Clarifiers Having SWD ≥ 10 ft.:		
Maximum Surface Loading Rate @ Peak 2-Hr Flow =	800 g/day/sf	
Maximum Surface Loading Rate @ Design Flow =	600 g/sf/day	
Minimum Detention Time @ Peak 2-Hr Flow =	2.2 hours	
Minimum Detention Time @ Design Flow =	3 hours	

Final Phase:

Required Volume (@ 2.2 Hr. D.T. for 2-Hr Peak Flow):	18,333	gal.	2,451	cf
Required Surface Area (overflow rate of 800g/sf/day @ peak flow):			250	sf
Required Volume (@ 800 g/sf/day @ peak flow w/ 10' SWD)			2,500	cf
Required Volume (@ min detention time @ design flow):			6,250	gal
			836	cf
Minimum diameter (Volume x 4 ÷10 x π)$^{0.5}$			17.84	ft.
Minimum Weir Length Required			10	ft
Volume Provided:			2,545	cf
Diameter Provided:			18	ft.

DISINFECTION USING CHLORINE:

Essential TCEQ Requirements:

Minimum Detention Time @ Peak 2-Hr Flow = 20 Minutes

Rapid Mixing with G > 500/sec.

Final Phase:

Required Volume @ 20 Min. D. T. For Peak 2-Hr. Flow:	2,778	gal.	371 cf

Proposed Chlorine Dimensions:

Length	4.00	ft
Width	12.0	ft
Depth	8.0	ft
Volume Provided	384	cf

CHLORINE FEEDER CAPACITY

Probable Chlorine Dose 7 to 9 mg/l

Final Phase:

Chlorine Feed Rate (Use 9 mg/l to Averge Flow of 0.05 MGD):	3.8	PPD
Chlorine Feed Rate (Use 9 mg/l to Peak Flow of 0.2 MGD):	0.6	PPH

WASTE SLUDGE PRODUCTION:

Assume 94.3% BOD_5 Removal & 90% SS Removal[1]:		0.94286	0.9000
Assume 35% of BOD_5 is Removed with SS Removal[2]:	0.35	0.65	
Assume 0.5 lbs SS Produced per lb BOD_5 Removed[2]:		0.5	
Assume 80% of Secondary SS are Volatile[2]:		0.8	
Assume 65% of Primary SS are Volatile[2]:		0.65	
Assume 30% Reduction of Raw SS in Aeration	0.3	0.7	
Assume 1.25% SS Concentration in Waste Sludge[2]:		0.0125	
Allow VSS loading of 0.055 lb/cf[2]:		0.055	

1. Based on Required Effluent Quality of 20/20 mg/l - BOD_5/SS.

2. A reasonable estimate of BOD^5 Removal from Wastewater Engineering by Metcalf & Eddy, Ten State Standards, and Others.

Final Phase:

	Percent of Interim Phase Flow			
	100%	75%	50%	25%
BOD Removed (lbs BOD/day)	138	103	69	34
Primary SS Removed (lb SS/day):	75	56	38	19
Primary VSS Removed (lb VSS/day):	49	37	24	12
Secondary SS Produced from BOD_5 Removed (lb SS/day):	45	34	22	11
Secondary VSS Produced from BOD_5 Removed (lb VSS/day):	36	27	18	9
Total SS Produced (lb SS/day):	97	73	49	24
Total VSS Produced (lb VSS/day):	85	63	42	21
Total SS Wasted (lb SS/day)	97	73	49	24
Total Volume SS Wasted (gal/day)	932	699	466	233

SLUDGE DIGESTION USING AEROBIC DIGESTION:

Essential TNRCC Requirements:

I. Minimum Volume = 20 cf/lb of BOD_5.

II. Minimum Retention Time = 15 days.

Other accepted Design Requirements:

III. Volatile SS Loading (Wastewater Engineering by Metcalf & Eddy): 0.1 lbs/cf

Final Phase:

Required Volume (Based on 20 cf/lb. BOD_5):	2,917	cf
Required Volume (Based on 15 Days Sludge D. T.)	1,869	cf
Required Volume (VSS Loading)	845	cf
Volume Provided: (2 basins)	4,481	cf

DIGESTER SLUDGE DETENTION TIME:

Final Phase:

Hydraulic Retention Time:	35.96	Days

DIGESTER SLUDGE REMOVAL SCHEDULE:

Based on 40% reduction of SS in Aerobic Digestion 0.6

Assume Concentration of Sludge in Digester at 1.5%

	Percent of Phase Flow			
	100%	75%	50%	25%
Final Phase:				
Days between Sludge Removal:	71	95	143	287

AIR REQUIREMENTS:

AERATION USING COARSE-BUBBLE DIFFUSED AERATION:

Essential TNRCC Requirements for Nitrification:

≥ 2.2 lbs. O_2/lb. BOD_5

≥ 3200 scf Air/lb. BOD_5 (Based on 4.0% O_2 T.E.)

≥ 2616 scf Air/lb. BOD_5 (By Ashbrook Certified Efficiency of 7.5% O_2 T.E. clean water at 8.5 ft Submergence)

{(1lb. BOD_5 x2.2 lbs. O_2/lb. BOD_5)/(0.01725 lbs. O_2/cf air x 0.075 x 0.65 transfer efficiency)=2616 scfm/lb BOD_5}

Final Phase:

Required Air Volume (@ 4.0% O_2 T.E.):	324	scfm
Required Air Volume (@ 7.5% O2 T.E. @ 8.5 ft. submergence and 30 scfm, by AUC):	265	scfm

AEROBIC DIGESTION:

Essential TNRCC Requirements:

≥ 30 scfm/1,000 cf of Digester Volume	30	scfm/1000cf

Final Phase:

Required Air Volume:	134	scfm

AIR LIFT PUMPING (Manufacuter Recommendation):

Final Phase:

Required Air Volume:	25	scfm

CHLORINE BASIN AGITATION:

= 5 scfm/1,000 cf of Basin Volume	20	scfm/1000cf

Final Phase:

Required Air Volume:	8	scfm

MINIMUM TOTAL AIR REQUIRED:

Interim Phase: (Based on Manf. Certified 9.3% O2 T.E.)	491	scfm

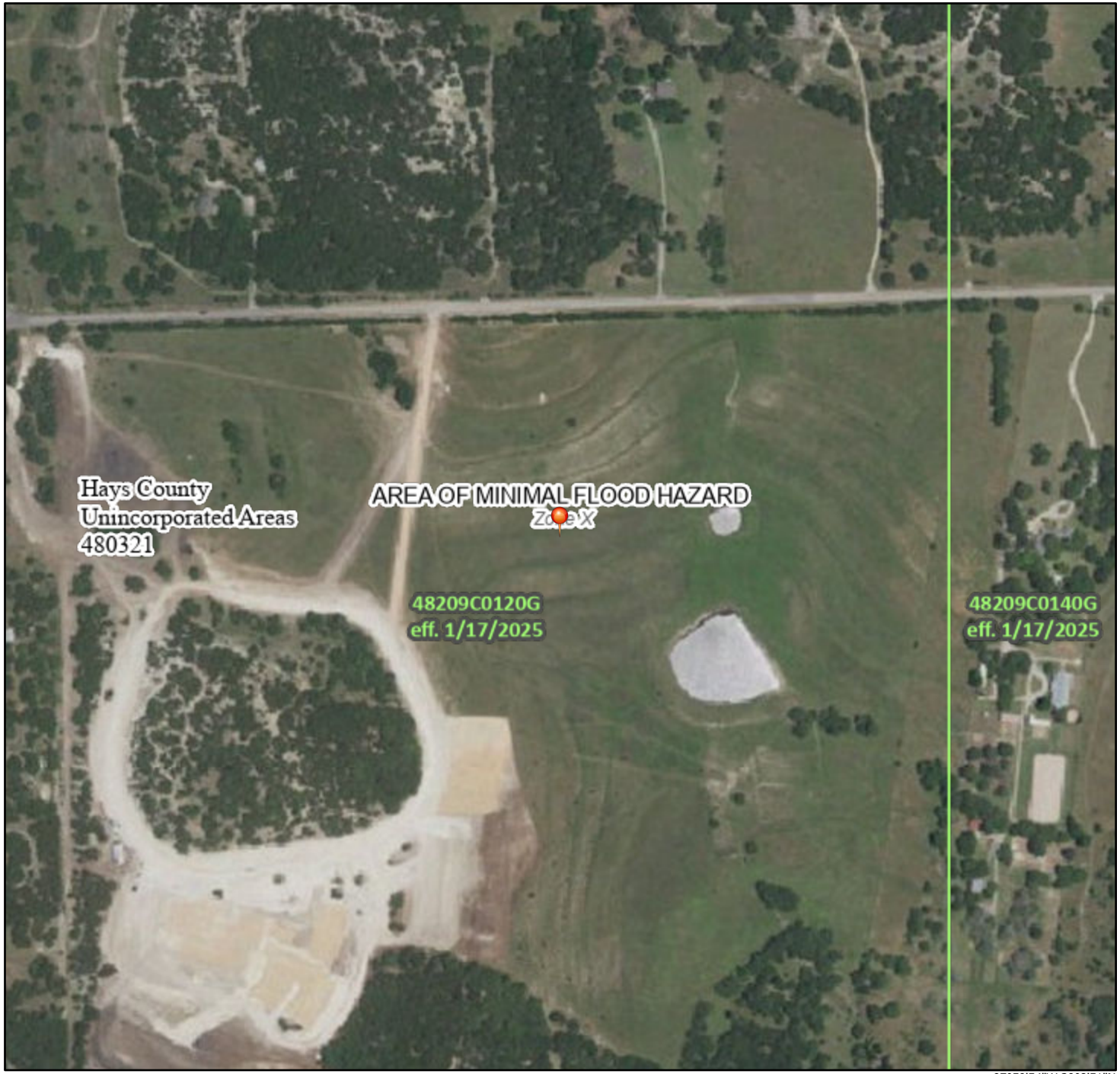
DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 15
FEMA FLOOD MAP AND FIRMETTE

National Flood Hazard Layer FIRMette

FEMA

98°0'32"W 30°9'22"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

97°59'54"W 30°8'51"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

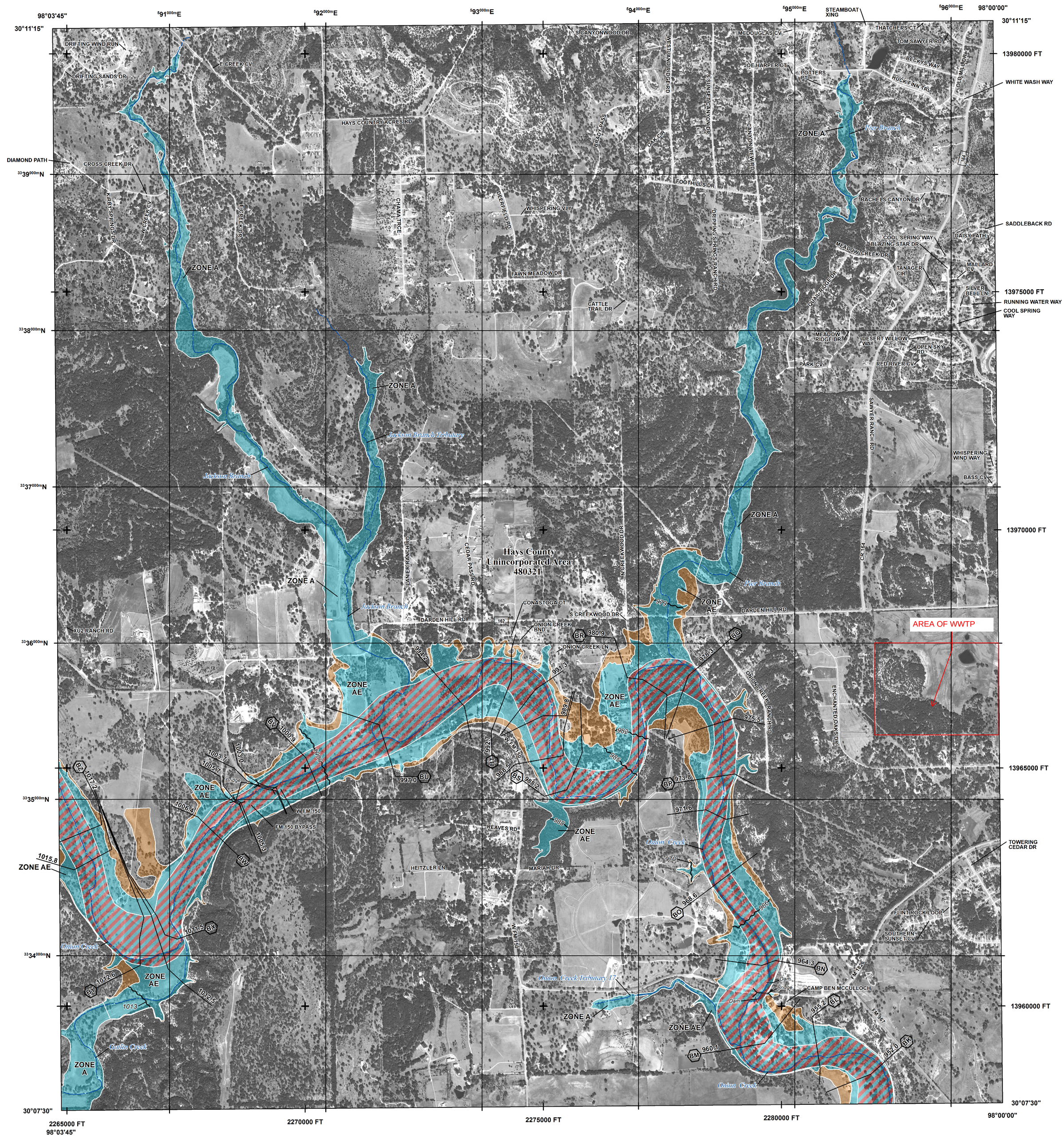
N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/22/2025 at 6:13 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTPS://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) *Zone A,V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS

- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- E 18.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 — Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Mapping and Insurance eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on the FIRM was provided by TxDOT, the City of San Marcos, USGS and the Texas Natural Resources Information System. This imagery was flown in 2015 and was produced with a 0.5-meter ground sample distance.

SCALE

N

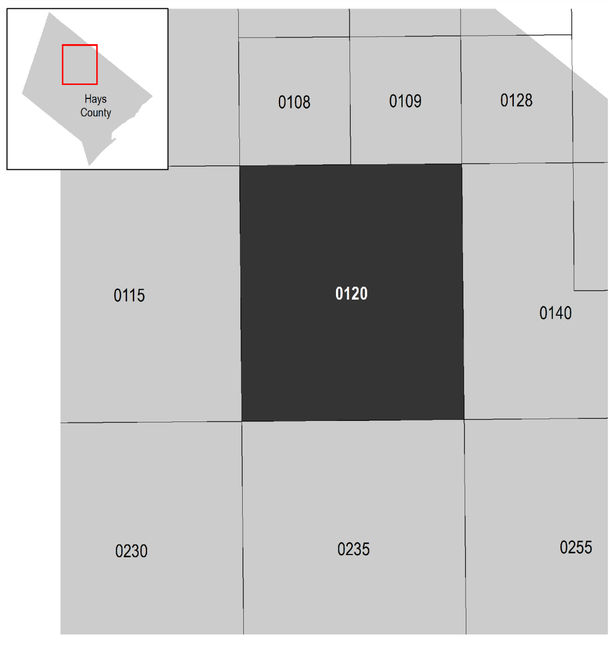
Map Projection:
Universal Transverse Mercator Zone 14N; North American Datum 1983;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet — 1:12,000

0 — 1,000 — 2,000 — 4,000 feet

0 — 250 — 500 — 1,000 meters

PANEL LOCATOR



FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

HAYS COUNTY, TEXAS
and Incorporated Areas

PANEL 120 OF 525

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
HAYS COUNTY	480321	0120	G

VERSION NUMBER
2.3.3.3

MAP NUMBER
48209C0120G

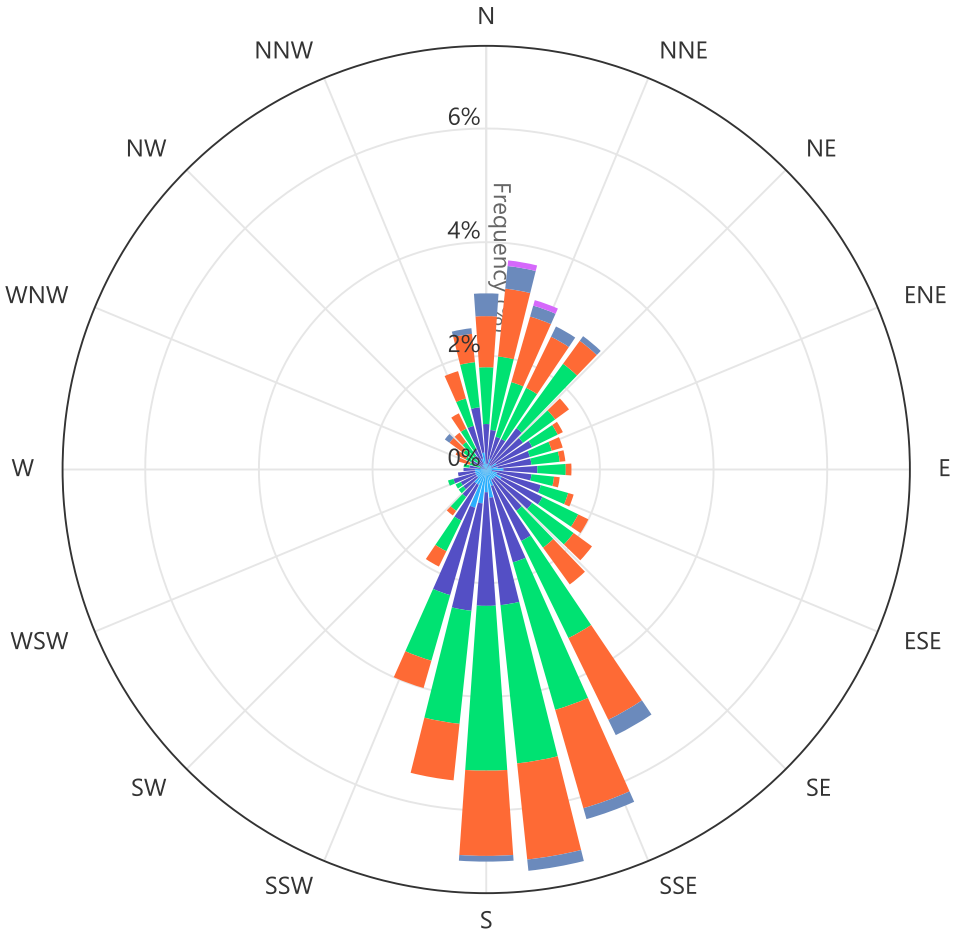
MAP REVISED
JANUARY 17, 2025

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 16
WIND ROSE

AUSTIN BERGSTROM INTL AP (TX) Wind Rose

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



Wind Speed (mph)

- 1.3 - 4
- 4 - 8
- 8 - 13
- 13 - 19
- 19 - 25
- 25 - 32
- 32 - 39
- 39 - 47
- 47 -

Click and drag to zoom

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 17
SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN

Sludge Management Plan

Influent Design Final Initial Flow = 0.035 mgd

Influent Design Final Phase Flow = 0.05 mgd

Influent BOD Concentration = 350 mg/L

Aerobic Digester Volume Initial Phase: 2,241 cu. ft

Aerobic Digester Volume Final Phase: 4,481 cu. ft

Aeration Basin MLSS: 3,000 to 6,000 mg/L

Table (1) – Sludge Production – Plant with Capacity for Initial Phase Average Design Flow – 35,000 GPD

Solids Generated	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Lbs. BOD_5 removed/day	96	72	48	24
Lbs. SS removed/day - Primary	53	39	26	13
Lbs. Waste SS/day (1) -Total	68	51	34	17
Volume of sludge wasted/day (2) (gallons)	653	489	326	163

1. Based on 0.5 lbs. SS produced/lb. BOD_5 removed and 35% reduction of raw SS in aeration.
2. Based on 1.25% SS concentration in sludge wasted to the digester.

Table (2) – Sludge Production – Plant with Capacity for Final Phase Average Design Flow – 50,000 GPD

Solids Generated	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Lbs. BOD_5 removed/day	138	103	69	34
Lbs. SS removed/day	75	56	38	19
Lbs. Waste SS/day (1)	97	73	49	24

Volume of sludge wasted/day [(2)] (gallons)	932	699	466	233

1. Based on 0.5 lbs. SS produced/lb. BOD_5 removed and 35% reduction of raw SS in aeration.
2. Based on 1.25% SS concentration in sludge wasted to the digester.

Table (3) – Sludge Removal Schedule – Plant with Capacity for Initial Phase Average Design Flow – 35,000 GPD

Solids Generated	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Days between Sludge Removal	51	68	102	205

Table (4) – Sludge Removal Schedule – Plant with Capacity for Final Phase Average Design Flow – 50,000 GPD

Solids Generated	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Days between Sludge Removal	71	95	143	287

Liquid digested sludge will be removed from the digester for disposal on a regular basis as required. The calculated mean cell residence time (MCRT) for the digester storage volume of 33,522 gal will be approximately 35.96 days at 100% capacity and annual average digested sludge production of 97 ppd. Sludge transportation, registered hauler, landfill, and Permit No. in Hays County is to be determined.

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 18
ANNUAL CROPPING PLAN

CROPPING PLAN
Domestic Worksheet 3.0

The drip irrigation fields will be a dedicated area within Dripping Springs ISD property as shown on the design plans. The drip field areas are currently moderate to thickly vegetated with non-grazed vegetation, native herbaceous and woody species. The goals are to maintain considerable native areas. A significant portion of the area is open landscape, old farm ground.

Prior to installation of the drip irrigation system the drip field areas will be prepared for installation of piping, valves and drip tubing. Debris and oversized rocks will be removed from the drip irrigation fields. The least amount of natural soil removed will be minimized in accomplishing that action as needed. It is the goal to miminze the amount of imported soils to supplement.

Field areas and other disturbed areas will be vegetated with approved vegetation. Applied vegetation will meet the intent of the landscaping plan, but at a minimum is capable of holding the soils in place so that erosion does not occur and so that plant essential transpiration can occur. The intent of this plan is to assure a vegetative cover that promotes vegetative transpiration throughout the year. Failure to keep a good vegetative cover can result in system failure since the operation of this system depends to a certain degree upon vegetative transpiration. Erosion of soils within the drain field areas will be addressed and repaired immediately and reseeded to maintain a thick and healthy vegetative cover.

The drip irrigation areas will be maintained and mowed as necessary to keep the existing vegetation healthy and actively growing. The grass will be mowed on an as-needed basis to maintain optimum grass height between four and eight inches. Records of mowing frequency and dates will be recorded, and records maintained on site.

It is recommended that all mowing activities utilize equipment with mulching blades. This will allow all clippings to fall through the canopy and degrade on the soil surface. The quality of the wastewater will be exceptional and will not meet the nutritive demands of the vegetation. Mulching will assist with maintaining a nutrient balance.

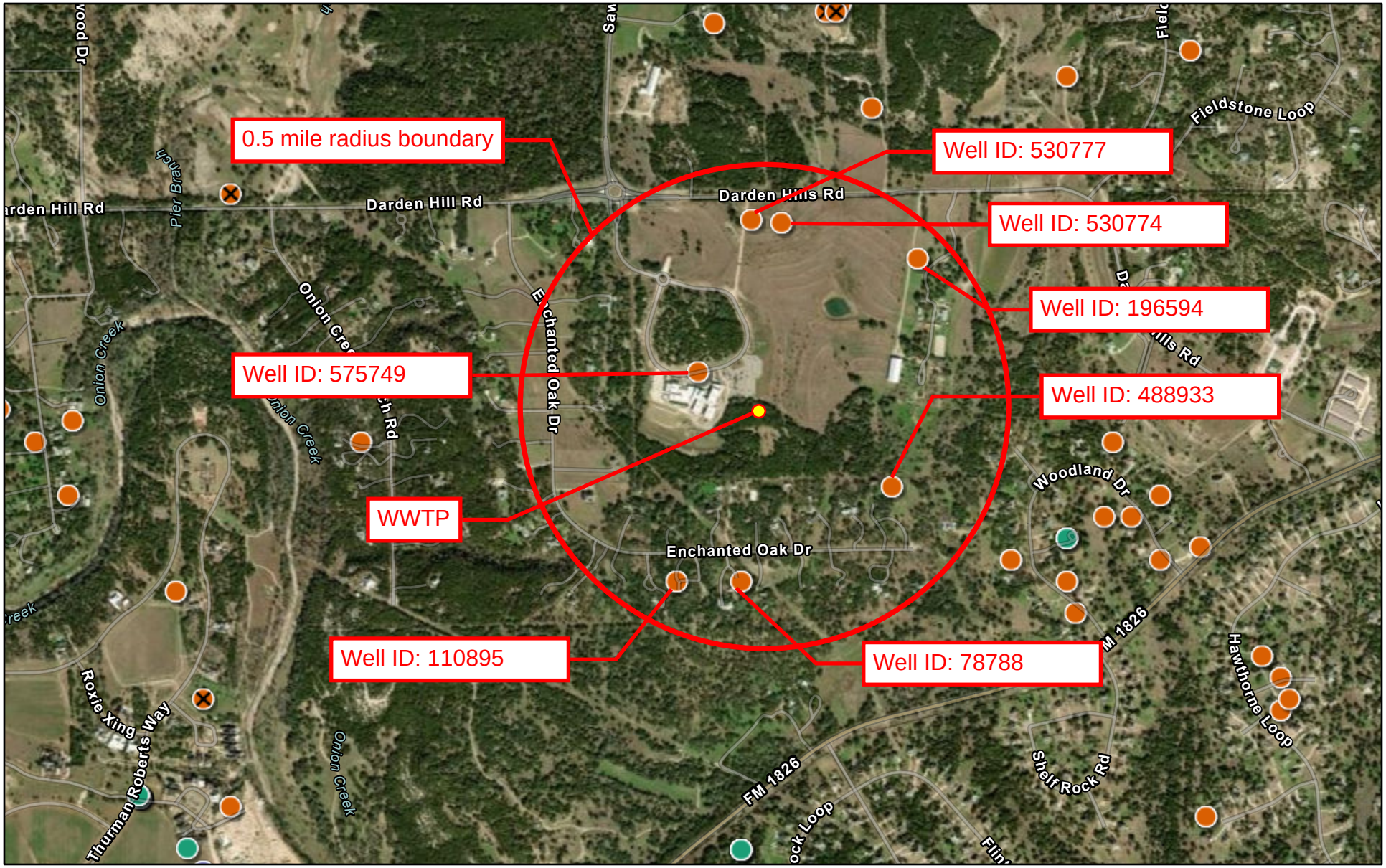
Supplemental fertilization and watering will be provided as necessary to maintain healthy vegetation. The condition of the established grass cover will be evaluated at each mowing/harvesting period, and the need for supplemental watering or fertilizer will be considered considered and implemented only if necessary.

All vegetation utilized will be moderately tolerant to soil salinity, although it is not anticipated that the treated wastewater will warrant concerns.

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 19
WATER WELL INFORMATION

Dripping Springs High School No. 2 WWTP Wells



Texas Water Development Board

January 23, 2025

Plugging Reports
Well Reports
BRACS Database
TWDB Groundwater
Proposed WWTP Site

0 0.15 0.3 0.6 mi
0 0.23 0.45 0.9 km
1:18,056

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap

TEXAS WATER DEVELOPMENT BOARD

WATER WELL DATA

Permit ID	State Well ID	Owner Name	Primary Water Use	Elevation (ft)	Well Depth (ft)	Water Level (ft)
1	110895	Kuykendall Marshall	Domestic	1071	440	165
2	196594	Chris Smtih	Domestic	1151	620	395
3	488933	Ron Bowling	Domestic	No Data	530	229
4	530774	Dripping Springs I.S.D.	Closed-Loop Geothermal	1148	300	No Data
5	530777	Dripping Springs I.S.D.	Closed-Loop Geothermal	1148	300	No Data
6	575749	Dripping Springs I.S.D.	Closed-Loop Geothermal	1150	300	No Data
7	78788	Jennifer & Elias Anderson	Domestic	1134	495	260

Permit ID	State Well ID	Aquifer	Latitude	Longitude	County	Well Type
1	110895	Trinity	30° 08' 37" N	98° 00' 25" W	Hays	New Well
2	196594	Trinity	30° 09' 07" N	97° 59' 59" W	Hays	New Well
3	488933	Trinity	30° 08' 45.84" N	98° 00' 1.86" W	Hays	Domestic
4	530774	Trinity	30° 09' 10.4" N	98° 00' 13.8" W	Hays	New Well
5	530777	Trinity	30° 09' 10.6" N	98° 00' 16.9" W	Hays	New Well
6	575749	Trinity	30° 08' 56.53" N	98° 00' 22.69" W	Hays	New Well
7	78788	Trinity	30° 08' 37" N	98° 00' 18" W	Hays	New Well

STATE OF TEXAS WELL REPORT for Tracking #110895

Owner:	**Kuykendall, Marshall**	Owner Well #:	**1**
Address:	**900 Enchanted Oak Dr. Driftwood, TX 78619**	Grid #:	**57-56-9**
Well Location:	**900 Enchanted Oak Driftwood, TX, TX 78619**	Latitude:	**30° 08' 37" N**
		Longitude:	**098° 00' 25" W**
Well County:	**Hays**	Elevation:	**1071 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **4/6/2007** Drilling End Date: **4/12/2007**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8**	**0**	**440**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**40**	**1Port;1HP**
	315	**340**	**3Port;1Benseal**

Seal Method: **Pressure Grout**

Sealed By: **Whisenant&Lyle Water Services, Inc.**

Distance to Property Line (ft.): **67+**

Distance to Septic Field or other concentrated contamination (ft.): **150**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Measured**

Surface Completion: **Surface Sleeve Installed**

Water Level: **165 ft.** below land surface on **2007-04-12** Measurement Method: **Unknown**

Packers: **6 Mil Poly 40'**
6 Mil Poly 120'
6 Mil Poly 140'
6 Mil Poly 220'
Shale Packer 340'

Type of Pump: **Submersible** Pump Depth (ft.): **400**

Well Tests: **Jetted** **Yield: 20+ GPM**

Water Quality:

Strata Depth (ft.)	Water Type
360-438	**Good**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Whisenant & Lyle Water Services, Inc.**

P. O. Box 525
Dripping Springs, TX 78620

Driller Name: **Martin Dale Lingle, Jr.** License Number: **54813**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**1**	**Topsoil**
1	**2**	**Claliche**
2	**3**	**Brown Clay**
3	**5**	**White Hard Limestone**
5	**6**	**Brown Limestone**
6	**11**	**Lt. Gray Hard Limestone**
11	**20**	**Dark Gray Limestone**
20	**24**	**Brown Limestone**
24	**30**	**Lt. Gray Limestone**
30	**33**	**Brown Limestone**
33	**35**	**Lt. Gray Limestone**
35	**37**	**Dark Gray Limestone**
37	**52**	**Lt. Gray Limestone**
52	**73**	**Brown Limestone**
73	**120**	**Lt. Gray Limestone**
120	**124**	**White Limestone**
124	**178**	**Gray White Limestone**
178	**182**	**Dark Gray Limestone**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4.5" N PVC-SDR 17IB +2' - 360'			
4.5" N PVC-17 SLOTTED.085 360' - 440'			

182	**238**	**Tan Gray Limestone**
238	**245**	**Gray Clay**
245	**290**	**Gray White Limestone**
290	**295**	**Brown Sandstone**
295	**340**	**Tan Limestone**
340	**360**	**Gray Tan Limestone**
360	**438**	**Tan Brown Limestone**
438	**440**	**Gray Clay**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #196594

Owner:	**Smith, Chris**	Owner Well #:	**RussTaylor#1**
Address:	**10651 Darden Hill Road Austin, TX 78737**	Grid #:	**58-49-7**
Well Location:	**10651 Darden Hill Road Austin, TX 78737**	Latitude:	**30° 09' 07" N**
		Longitude:	**097° 59' 59" W**
Well County:	**Hays**	Elevation:	**1151 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **9/10/2009** Drilling End Date: **9/15/2009**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8**	**0**	**620**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**40**	**9portland1hlplg**
	455	**480**	**3portland1bnsel**

Seal Method: **Pressure Grout**

Sealed By: **Whisenant & Lyle Water Services Inc**

Distance to Property Line (ft.): **195**

Distance to Septic Field or other concentrated contamination (ft.): **300+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Measured**

Surface Completion: **Pitless Adapter Used**

Water Level: **395 ft.** below land surface on **2009-09-15** Measurement Method: **Unknown**

Packers: **6MIL POLY- 40'**
6MIL POLY- 320'
6MIL POLY/SHALE PACKER- 480'

Type of Pump: **Submersible** Pump Depth (ft.): **560**

Well Tests: **Jetted** **Yield: 15+ GPM**

Water Quality:

Strata Depth (ft.)	Water Type
500' - 600'	**Good**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Whisenant & Lyle Water Services Inc.**

P.O. Box 525
Dripping Springs, TX 78620

Driller Name: **Martin D. Lingle** License Number: **54813**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**1**	**topsoil**
1	**2**	**caliche**
2	**4**	**brown limestone**
4	**6**	**yellow limestone**
6	**15**	**yellow brown limestone**
15	**25**	**grey limestone**
25	**27**	**brown limestone**
27	**30**	**grey limestone**
30	**45**	**brown yellow limestone**
45	**147**	**grey limestone**
147	**150**	**tan limestone**
150	**240**	**grey limestone**
240	**250**	**white limestone**
250	**300**	**grey limestone**
300	**302**	**tan limestone**
302	**330**	**grey limestone**
330	**383**	**brown limestone**
383	**420**	**brown grey limestone**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
4.5 N PVC-SDR17IB +2'-500'
4.5 N PVC-17SLOTTED.085 500'-600'
4.5 N PVC-SDR17IB 600'-620'

420	**520**	**tan sandstone**
520	**530**	**brown sandstone**
530	**590**	**brown limestone**
590	**615**	**grey limestone**
615	**620**	**grey clay hamitt**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #488933

Owner:	**RON BOWLING**	Owner Well #:	**No Data**
Address:	**1275 ENCHANTED OAKS DRIVE DRIFTWOOD, TX 78619**	Grid #:	**57-56-9**
Well Location:	**1275 ENCHANTED OAKS DRIVE DRIFTWOOD, TX 78619**	Latitude:	**30° 08' 45.84" N**
		Longitude:	**098° 00' 01.86" W**
Well County:	**Hays**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **7/9/2018** Drilling End Date: **7/9/2018**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
9	**0**	**100**
6.125	**100**	**530**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**100**	**TYPE H CEMENT 10 Bags/Sacks**
0	**100**	**Bentonite 2 Bags/Sacks**

Seal Method: **Pressure**

Sealed By: **Driller**

Distance to Property Line (ft.): **70**

Distance to Septic Field or other concentrated contamination (ft.): **150**

Distance to Septic Tank (ft.): **150**

Method of Verification: **OWNER**

Surface Completion: **Surface Sleeve Installed** **Surface Completion by Driller**

Water Level: **229 ft.** below land surface on **2018-07-31** Measurement Method: **Electric Line**

Packers: **Burlap at 100 ft.**
BURLAP & PLASTIC at 120 ft.
BURLAP & PLASTIC at 310 ft.
BURLAP & PLASTIC at 400 ft.
BURLAP & PLASTIC at 430 ft.

Type of Pump: **Submersible** Pump Depth (ft.): **500**

Well Tests: **Jetted** **Yield: 50+ GPM**

Water Quality:

Strata Depth (ft.)	Water Type
430 - 530	**MIDDLE TRINITY**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Centex Pump & Supply, Inc.**

2520 Hwy. 290 West
Dripping Springs, TX 78620

Driller Name: **MARTIN DALE LINGLE** License Number: **54813**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**5**	**TOP SOIL & ROCK**
5	**10**	**BLUE LIMESTONE**
10	**27**	**GRAY LIMESTONE**
27	**33**	**BROWN & TAN LIMESTONE**
33	**260**	**GRAY & TAN LIMESTONE**
260	**310**	**TAN LIMESTONE**
310	**380**	**GRAY LIMESTONE**
380	**400**	**GRAY/TAN LIMESTONE**
400	**520**	**TAN LIMESTONE**
520	**530**	**CLAY**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
5	**Blank**	**New Plastic (PVC)**	**SDR17**	**2**	**430**
5	**Perforated or Slotted**	**New Plastic (PVC)**	**SDR17 0.032**	**430**	**530**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #530774

Owner:	**Dripping Springs I.S.D.**	Owner Well #:	**DH-T1 west**
Address:	**510 W. Mercer St. dripping Springs, TX 78620**	Grid #:	**57-56-9**
Well Location:	**Darden Hill Rd. Dripping Springs, TX**	Latitude:	**30° 09' 10.4" N**
		Longitude:	**098° 00' 13.8" W**
	From intersection of CR164 and CR162. Go .51 miles east on CR162. Gate to enter property is on the right or south side of CR162.	Elevation:	**1148 ft. above sea level**
Well County:	**Hays**		

Type of Work: **New Well** Proposed Use: **Closed-Loop Geothermal**

Drilling Start Date: **10/17/2019** Drilling End Date: **10/31/2019**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**4.75**	**0**	**300**

Drilling Method: **Air Rotary**

Borehole Completion: **Pressure Tremie**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**300**	**Bentonite 16 Bags/Sacks**

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **N/A**

Distance to Septic Field or other concentrated contamination (ft.): **N/A**

Distance to Septic Tank (ft.): **N/A**

Method of Verification: **N/A**

Surface Completion: **Geo** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Michael Tolle**

6556 Indian Trail
Sanger, TX 76266

Driller Name: **Michael Tolle** License Number: **58457**

Comments: **Darden Hill test well WEST**

Report Amended on 12/30/2019 by Request #29518

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Overburden**
2	**20**	**Tan Caliche**
20	**300**	**Gray shale w/limestone**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
1	**Loop**	**New HDPE**	**DR11**	**0**	**300**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #530777

Owner:	**Dripping Springs I.S.D.**	Owner Well #:	**DH-T2E**
Address:	**510 W. Mercer St. Dripping Springs, TX 78620**	Grid #:	**57-56-9**
Well Location:	**Darden Hill Rd. dripping Springs, TX 78620**	Latitude:	**30° 09' 10.6" N**
		Longitude:	**098° 00' 16.9" W**
	From intersection of CR164 and CR162. Go .51 miles east on CR162. Gate to enter property is on the right or south side of CR162.	Elevation:	**1148 ft. above sea level**
Well County:	**Hays**		
Type of Work:	**New Well**	Proposed Use:	**Closed-Loop Geothermal**

Drilling Start Date: **10/17/2019** Drilling End Date: **10/31/2019**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**4.75**	**0**	**300**

Drilling Method: **Air Rotary**

Borehole Completion: **Pressure tremie**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**30**	**Bentonite 3 Bags/Sacks**
30	**300**	**TCS 3/8" gravel 1.5 Yards**

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **N/A**

Distance to Septic Field or other concentrated contamination (ft.): **N/A**

Distance to Septic Tank (ft.): **N/A**

Method of Verification: **N/A**

Surface Completion: **Geo** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
0 - 2	**Overburden**
2 - 20	**Tan caliche**
20 - 300	**Gray shale w/limestone**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Michael Tolle**

6556 Indian Trail
Sanger, TX 76266

Driller Name: **Michael Tolle** License Number: **58457**

Comments: **Darden Hill test well #2 east**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Overburden**
2	**20**	**Tan caliche**
20	**300**	**Gray shale w/limestone**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
1	**Loop**	**New HDPE**	**dr11**	**0**	**300**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #575749

Owner:	**Dripping Springs I.S.D.**	Owner Well #:	**No Data**
Address:	**510 W. Mercer St. Dripping Springs, TX 78620**	Grid #:	**57-56-9**
		Latitude:	**30° 08' 56.53" N**
Well Location:	**11091 DARDEN Hill Rd. Driftwood, TX 78619**	Longitude:	**098° 00' 22.69" W**
Well County:	**Hays**	Elevation:	**1150 ft. above sea level**
Number of Wells Drilled:	**216**		

Type of Work: **New Well** Proposed Use: **Closed-Loop Geothermal**

Drilling Start Date: **10/9/2020** Drilling End Date: **12/14/2020**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**4.75**	**0**	**300**

Drilling Method: **Air Rotary**

Borehole Completion: **Pressure tremie**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**30**	**Bentonite 3 Bags/Sacks**
30	**300**	**TCS 3/8" gravel 1.5 Yards**

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **N/A**

Distance to Septic Field or other concentrated contamination (ft.): **N/A**

Distance to Septic Tank (ft.): **N/A**

Method of Verification: **N/A**

Surface Completion: **Geo** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Michael Tolle**

6556 Indian Trail
Sanger, TX 76266

Driller Name: **Michael Tolle** License Number: **58457**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**overburden**
2	**20**	**Tan caliche**
20	**300**	**Gray shal with limestone streaks**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
1	**Loop**	**New HDPE**	**DR11**	**0**	**300**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #78788

Owner:	**JENNIFER & ELIAS ANDERSON**	Owner Well #:	**No Data**
Address:	**980 ENCHANTED OAKS DRIFTWOOD, TX 78619**	Grid #:	**57-56-9**
		Latitude:	**30° 08' 37" N**
Well Location:	**980 ENCHANTED OAKS DRIFTWOOD, TX 78619**	Longitude:	**098° 00' 18" W**
Well County:	**Hays**	Elevation:	**1134 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **2/13/2006** Drilling End Date: **2/14/2006**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
8	**0**	**13**
6.75	**13**	**495**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**13**	**9 CEMENT**

Seal Method: **SLURRIED & POURED**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **268**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **STEEL TAPE**

Surface Completion: **Surface Sleeve Installed**

Water Level: **260 ft.** below land surface on **2006-02-20** Measurement Method: **Unknown**

Packers: **NEOPRENE 13**
NEOPRENE 405

Type of Pump: **Submersible** Pump Depth (ft.): **460**

Well Tests: **Jetted** **Yield: 30 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **BEE CAVE DRILLING, INC.**

185 ANGELFIRE DR.
DRIPPING SPRINGS, TX 78620

Driller Name: **BOBBY ROBERTS** License Number: **54416**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**TOPSOIL**
2	**18**	**CALICHE**
18	**230**	**GREY LIMESTONE**
230	**242**	**GREY CLAY**
242	**250**	**GREY LIMESTONE**
250	**415**	**GREY ROCK**
415	**420**	**TAN ROCK**
420	**495**	**WHITE & GREY ROCK W/B 30 GPM TDS 790**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
4.5 NEW PLASTIC 0 - 425
4.5 NEW SCREEN MFG. 425 - 485 .050
4.5 NEW PLASTIC 485 - 495

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P.O. Box 12157
Austin, TX 78711
(512) 334-5540

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 20
USDA SOIL SURVEY MAP

Map Scale: 1:7,480 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 21, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BrB	Bolar clay loam, 1 to 3 percent slopes	31.9	13.5%
BtD	Brackett-Rock outcrop-Comfort complex, 1 to 8 percent slopes	61.0	25.9%
CrD	Comfort-Rock outcrop complex, 1 to 8 percent slopes	25.8	11.0%
DoC	Doss silty clay, moist, 1 to 5 percent slopes	5.2	2.2%
PuC	Purves clay, 1 to 5 percent slopes	44.4	18.9%
RcD	Real-Comfort-Doss complex, 1 to 8 percent slopes	44.2	18.8%
SuB	Sunev clay loam, 1 to 3 percent slopes	20.6	8.8%
W	Water	2.3	1.0%
Totals for Area of Interest		**235.3**	**100.0%**

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 21
LABORATORY SOIL ANALYSIS RESULTS

SOIL ANALYSIS REPORT

CLIENT:	PKCC PAUL REYNOLDS PO BOX 778 CLARENDON, TX 79226
41493	

servi tech
www.servitech.com

1816 E. Wyatt Earp
PO Box 1397
Dodge City, KS 67801
800.557.7509
620.227.7123
Fax 620.227.2047

LAB NO:	86143 - 86147
INVOICE NO:	914443
DATE RECEIVED:	02/19/2025
DATE REPORTED:	03/11/2025

SOIL ANALYSIS RESULTS FOR: DRIPPING SPRING HS **FIELD ID:**

METHOD USED:			1:2 Soil-Water		1:2 Soil-Water	XSL(i)	LOI(r)	Cd Reduction		Mehlich 3 ICP				Ammonium Acetate		Mehlich 3 ICP	Calculated DTPA	DTPA			
Lab Number	Sample ID	Sample Depth	Soil pH	Buffer pH	Sol. Salts mmho/cm	Excess Lime	% Organic Matter	Nitrate-Nitrogen ppm	lb. N/A	Phosphorus ppm P	Potassium ppm K	Sulfur ppm	lb. S/A	Calcium ppm Ca	Magnesium ppm Mg	Sodium ppm Na	Zinc ppm Zn	Iron ppm Fe	Manganese ppm Mn	Copper ppm Cu	Boron ppm B
86143	S	0 - 6	7.9		0.55	Hi	7.9	9.3	17	8	474	11	20	8881	222	30	0.7	10	3.0	0.7	
86144	S	6 - 18	7.9		0.43	Hi	4.6	1.6	6	5	385	5	18	8711	155	32	0.4	5	2.0	0.8	
86145	N	0 - 6	8.0		0.38	Hi	3.8	1.1	<2	2	513	13	23	6623	105	29	0.4	8	4.5	0.8	
86146	N	6 - 18	8.2		0.28	Hi	2.5	1.1	<4	2	207	9	32	5439	71	32	0.3	5	3.2	0.4	
86147	N	18 - 30	8.3		0.20	Hi	1.0	<1.0	<4	3	91	10	36	3885	34	25	0.3	2	1.5	0.3	

METHOD USED:			KCl Extr.		Calculated	TKN	Sat. Paste														
Lab Number	Sample ID	Sample Depth	Ammonium Nitrogen ppm	lb. /A	Total N ppm	TKN ppm	Saturation % Sat	Electrical Conductivity mmho/cm	Calcium mg/L Ca	Magnesium mg/L Mg	Sodium mg/L Na	Sodium Adsorption Ratio									
86143	S	0 - 6	16	29	3708	3699	98	0.73	157	5.7	8	0.2									
86144	S	6 - 18	3	11	2155	2153	83	0.46	93	3.0	6	0.2									
86145	N	0 - 6	4	7	1222	1221	68	0.51	99	3.2	7	0.2									
86146	N	6 - 18	3	11	1161	1160	60	0.55	107	3.1	11	0.3									
86147	N	18 - 30	1	4	539	538	48	0.44	74	2.7	13	0.4									

FERTILIZER RECOMMENDATIONS: POUNDS ACTUAL NUTRIENT PER ACRE

Lab Number	Sample ID	Crop To Be Grown	Yield Goal	Lime, ECC Tons/A to raise pH to:			N	P_2O_5	K_2O	Zn	S	Mn	Cu	MgO	B	Ca	Cl
				6.0	6.5	7.0											
86143	S																
86144	S																
86145	N																
86146	N																
86147	N																

Cation Exchange Capacity

CEC	%H	%K	%Ca	%Mg	%Na
28	0	4	89	7	0
27	0	4	91	5	1
27	0	5	92	3	0
26	0	2	95	2	1
20	0	1	97	1	1

SPECIAL COMMENTS AND SUGGESTIONS:

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator

Michele Lawson

SOIL ANALYSIS REPORT

CLIENT:	PKCC PAUL REYNOLDS PO BOX 778 CLARENDON, TX 79226
41493	

servi tech
www.servitech.com
1816 E. Wyatt Earp
PO Box 1397
Dodge City, KS 67801
800.557.7509
620.227.7123
Fax 620.227.2047

LAB NO:	86143 - 86147
INVOICE NO:	914443
DATE RECEIVED:	02/19/2025
DATE REPORTED:	03/11/2025

SOIL ANALYSIS RESULTS FOR: DRIPPING SPRING HS **FIELD ID:**

Lab Number(s): 86143, 86144, 86145, 86146, 86147
Nutrient analyses determined using the Mehlich 3 extraction.

Lab Number(s): 86143, 86144, 86145, 86146, 86147
The CEC value calculated by cation summation has been adjusted to compensate for the presence of excess lime (reactive carbonates).

Lab Number(s): 86143, 86144, 86145, 86146, 86147
ZINC: The "c-DTPA-Zinc" equivalent was calculated from the Mehlich-3 ICP zinc value. Zinc fertilizer recommendations were calculated using the Mehlich-3 ICP zinc value.

Lab Number(s): 86143, 86145
Servi-Tech Laboratory fertilizer recommendations were not requested.

Lab Number(s): 86147
CAUTION: Iron is low. A foliar application may be necessary for sensitive crops.

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 22
RECHARGE FEATURE MAP

Recharge Feature Evaluation

Prepared for:

BURGESS & NIPLE, INC.
AUSTIN TEXAS
HAYS COUNTY
FEBRUARY 2025

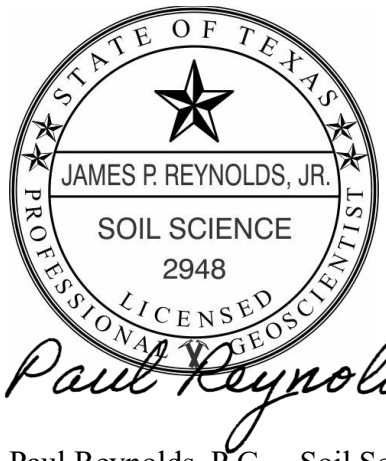
Prepared By:

Paul Reynolds, P.G. - Soil Scientist
PK double C Environmental Consulting
PO Box 778
Clarendon Texas 79226

CERTIFICATION

I certify that the content contained within this report is accurate to the extent of the data utilized in this report. The purpose of this report is to address generalities pertaining to the proposed drip irrigation operations as required by 30 TAC 222.

All information presented on this page and in the following supporting documents is true and accurate to the best of my knowledge.



Paul Reynolds February 24, 2025

Paul Reynolds, P.G. – Soil Scientist
PK double C Environmental Consulting

Introduction

PK double C Environmental Consulting has been contracted to perform a Recharge Feature Assessment of a 153 ac tract of land in Hays County. The intent of the request is a requirement of 30 TAC 222.79 and pertains to subsurface wastewater irrigation systems that are regulated within 30 TAC 222. The intent is to evaluate the property and determine if any potential recharge features exist.

Assessment Sources

Water well information, inventory and well log information, was provided by Burgess & Niple, Inc.. All of the associated data was garnered from the Texas Water Development Board.

Soil information was gathered from the USDA NRCS Web Soil Survey. Technical soil information was downloaded, by soil series, from the USDA-NRCS Official Series Description web site.

Geological information was collected from various sources on the internet. All information was reviewed to locate the site and review associated information.

Research Results

Water Wells

As described in the following table, there are 3 geothermal wells on the property and private production wells in the surrounding area. These wells are owned by Dripping Springs ISD and were completed to a depth of 300' into the Trinity Aquifer. Well 575749 I located just north of the existing elementary school. The remaining two wells, numbers 530774 and 530777, are located just south of the northern property line.

Wells 110895, 196594, 499933 and 78788 are nearby domestic wells. The following table gives completion depths.

Specific well information, as provided, is in the Appendices in association with the report generated from the TWDB and provided by Burgess & Niple, Inc..

State Well ID	Primary Water Use	Elevation (ft)	Well Depth (ft)	Water Level (ft)	Aquifer	County	Well Type
110895	Domestic	1071	440	165	Trinity	Hays	New
196594	Domestic	1151	620	395	Trinity	Hays	New
488933	Domestic	--	530	229	Trinity	Hays	New
530774	Geothermal	1148	300	No Data	Trinity	Hays	New
530777	Geothermal	1148	300	No Data	Trinity	Hays	New
575749	Geothermal	1150	300	No Data	Trinity	Hays	New
78788	Domestic	1134	495	260	Trinity	Hays	

Geology

Some areas of The Central Texas Hill Country are unique in its topography. The limestone associated with the Glen Rose formation exhibits stair step type topography. According to the Geologic Atlas of Texas, Austin Sheet, this site is predominately located on the Glen Rose Formation. The official description is;

The Glen Rose Formation is generally made up of alternating hard and soft beds that make up the formation and have resulted in the "stair-step hills" typical of the Central Texas Hill Country (Woodruff 1992). The characteristic stair-step topography occurs because of the different weathering and erosion rates of the formations alternating interbeds. The limestone and dolomite beds stand out as ledges capping the "risers" of the stair steps and forming the resistant substrate underlying the "treads". In contrast, the risers are eroded back to form the base of the risers.

The rock outcrops associated with the sloping topography of the Glen Rose formation are associated with the heel and toe of the underlying limestone formation. The areas between the heel and the toe generally have a gravelly, or stony, soil matrix that is generally deep enough to support a diverse plant community.

USDA – Soil Survey

A soils map is located in the Appendix I of this document. According to the results of the site investigation and visual observations, the soils at the site are **not** representative of the soils mapped and listed within the USDA-NRCS soil survey.

Climate

According to the USDA-NRCS Soil Survey for Hays County, Texas, the climate in Travis County is humid subtropical and is characterized by hot summers and relatively mild winters. Temperature, vegetative growth and rainfall are the climatic factors that have the greatest influence on the formation of soils in this area. The pattern of rainfall consists of interspersed wet and dry periods.

Soils

According to the Soil Survey, soils of the development site are dominated by the Bolar clay loam (mapped as BrB), Brackett-Rock Outcrop-Comfort Complex, which includes soils of the Brackett and Comfort series (mapped as BtD), Comfort-Rock outcrop complex (CrD), Doss silty clay (DoC), Purves clay (PuC), Real-Comfort-Doss complex (RcD) and soils of the Sunev clay loam series (SuB). This site also includes soils of the Valente (VoD) series that only make up approximately 2 acres out of the 70 acres associated with this property.

Table 1 illustrates the texture associated with each map unit. Additional information can be obtained from the USDA-NRCS specific information, attached to this document, pertaining to the soils illustrated within the attached soil map.

Table 1
Map Units, Unit Area and texture

Soil Map Unit	Unit Name	Acreage	Texture
BrB	Bolar	29.8	Clay Loam
BtD	Brackett-Rock outcrop-Comfort	48.6	Gravelly Clay Loam-Very Stony Clay
CrD	Comfort Rock outcrop	17.7	Very Stony Clay
DoC	Doss	2.8	Silty Clay
PuC	Purves	21.7	Clay
RcD	Real-Comfort-Doss complex	9.9	Gravelly Clay Loam-Very Stony Clay-Silty Clay
SuB	Sunev	20.4	Clay Loam
W		2.3	

Surface Site Assessment

A surface site assessment was performed by walking the property and aerial photography. There are two surface water impoundments within the property. Surface water flow of this area comes from the north and appears to include runoff from Darden Hill Rd, County Rd 162.

The drainage-way begins at the northern property line runs south, bisecting five man made terraces and enters the smaller of the two ponds. It's apparent that the smaller pond can overflow to the east where the water then flows due south into the larger pond. From that point the overflow from the large pond would discharge to the east-southeast toward the eastern property boundary. It appears as though water discharging primarily dissipates into the surround soils. However there is another depression 287 feet due south of toe of the larger pond.

This is illustrated in the following aerial.

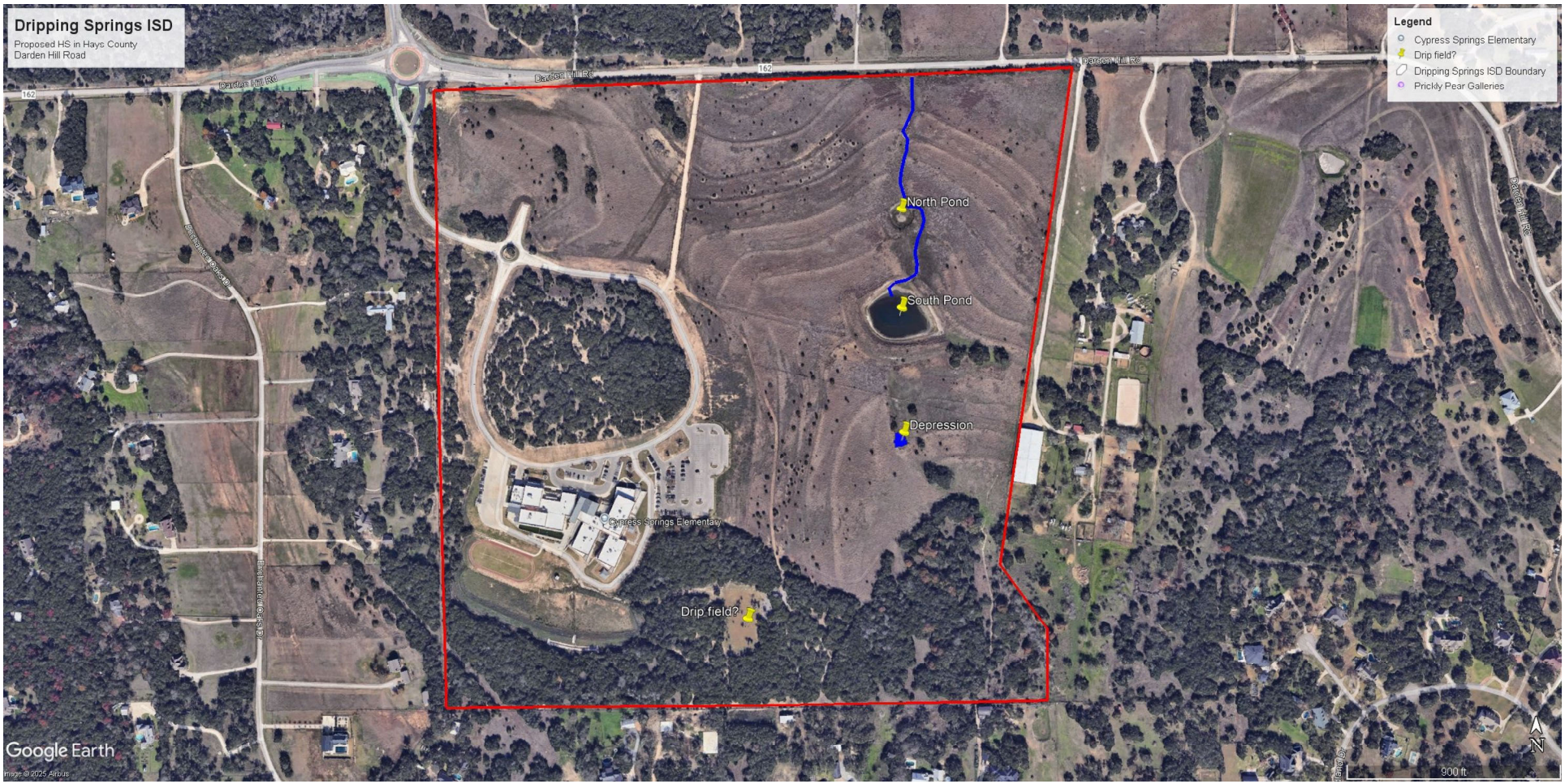
Terracing

Terraces are utilized to slow down runoff and to help retain stormwater. Older terraces no longer discharge from the property as much as hold water on the up-slope. These extended periods of retention of water can alter the hydric characteristics of the soils above the terrace. On shallower soils, or soils with a restrictive horizon, it possible to create a perched water bearing zone.

The terraces of this site are visible with aerial photography and can be seen on the following illustration.

Conclusions

No conclusive recharge features were located during this evaluation. The surface features described should be addressed to prevent possible issues associated with surface water.


Dripping Springs ISD
Proposed HS in Hays County
Darden Hill Road
Legend
Cypress Springs Elementary
Drip field?
Dripping Springs ISD Boundary
Prickly Pear Galleries
Darden Hill Rd
162
North Pond
South Pond
Depression
Cypress Springs Elementary
Drip field?
Google Earth
900 ft
N

Supporting Documents

Soil Map—Comal and Hays Counties, Texas
(DS ISD Proposed HS)

Map Scale: 1:6,420 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 21, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

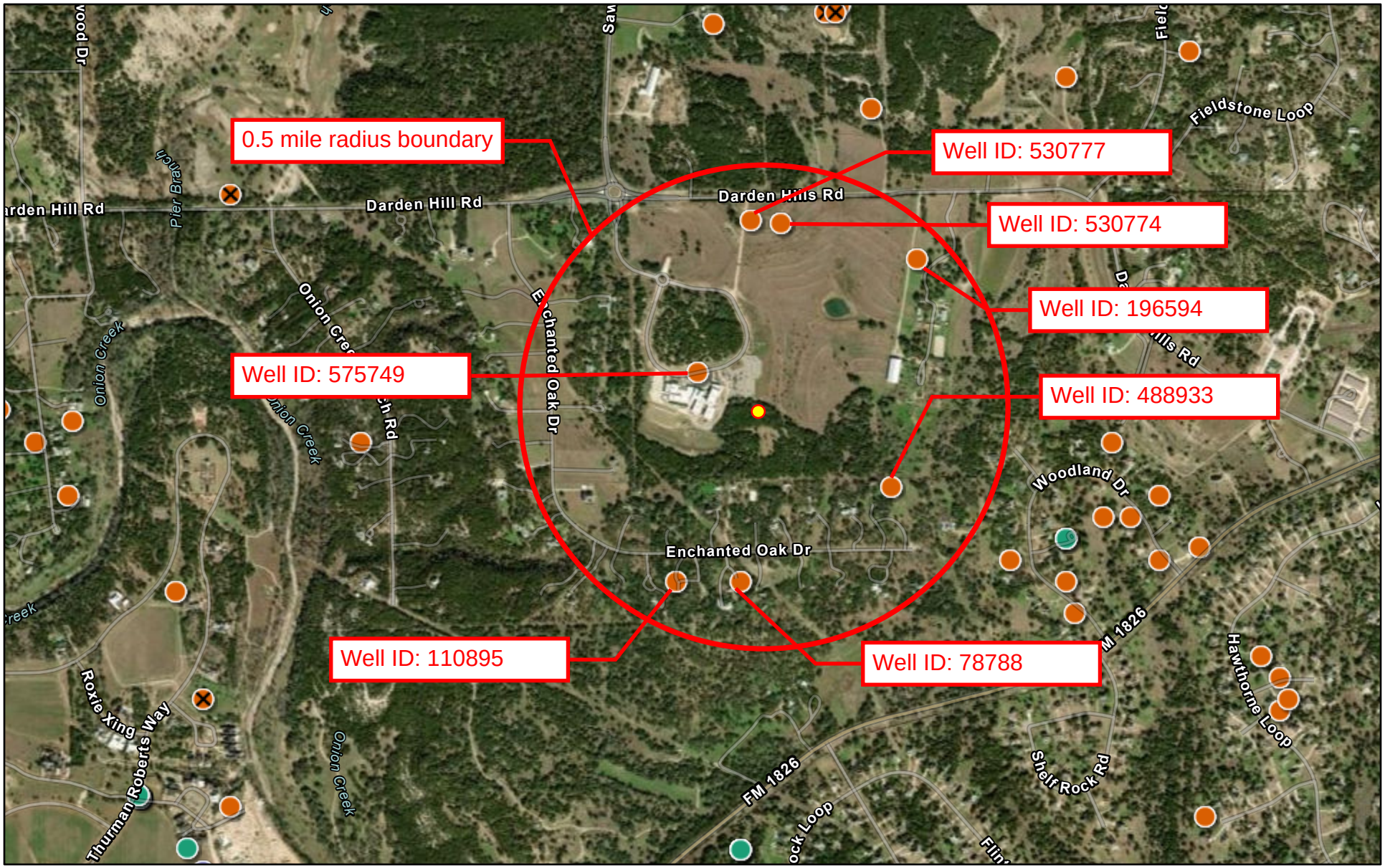
Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BrB	Bolar clay loam, 1 to 3 percent slopes	29.8	19.5%
BtD	Brackett-Rock outcrop-Comfort complex, 1 to 8 percent slopes	48.6	31.7%
CrD	Comfort-Rock outcrop complex, 1 to 8 percent slopes	17.7	11.5%
DoC	Doss silty clay, moist, 1 to 5 percent slopes	2.8	1.8%
PuC	Purves clay, 1 to 5 percent slopes	21.7	14.2%
RcD	Real-Comfort-Doss complex, 1 to 8 percent slopes	9.9	6.5%
SuB	Sunev clay loam, 1 to 3 percent slopes	20.4	13.3%
W	Water	2.3	1.5%
Totals for Area of Interest		**153.0**	**100.0%**

Dripping Springs High School No. 2 WWTP Wells



Texas Water Development Board

January 23, 2025

Plugging Reports
Well Reports
BRACS Database
TWDB Groundwater
Proposed WWTP Site

0 0.15 0.3 0.6 mi
0 0.23 0.45 0.9 km
1:18,056

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap

Well Information

Permit ID	State Well ID	Owner Name	Primary Water Use	Elevation (ft)	Well Depth (ft)	Water Level (ft)	Aquifer	Latitude	Longitude	County	Well Type
1	110895	Kuykendall Marshall	Domestic	1071	440	165	Trinity	30° 08' 37" N	98° 00' 25" W	Hays	New Well
2	196594	Chris Smtih	Domestic	1151	620	395	Trinity	30° 09' 07" N	97° 59' 59" W	Hays	New Well
3	488933	Ron Bowling	Domestic	No Data	530	229	Trinity	30° 08' 45.84" N	98° 00' 1.86" W	Hays	Domestic
4	530774	Dripping Springs I.S.D.	Closed-Loop Geothermal	1148	300	No Data	Trinity	30° 09' 10.4" N	98° 00' 13.8" W	Hays	New Well
5	530777	Dripping Springs I.S.D.	Closed-Loop Geothermal	1148	300	No Data	Trinity	30° 09' 10.6" N	98° 00' 16.9" W	Hays	New Well
6	575749	Dripping Springs I.S.D.	Closed-Loop Geothermal	1150	300	No Data	Trinity	30° 08' 56.53" N	98° 00' 22.69" W	Hays	New Well
7	78788	Jennifer & Elias Anderson	Domestic	1134	495	260	Trinity	30° 08' 37" N	98° 00' 18" W	Hays	New Well

STATE OF TEXAS WELL REPORT for Tracking #110895

Owner:	**Kuykendall, Marshall**	Owner Well #:	**1**
Address:	**900 Enchanted Oak Dr. Driftwood, TX 78619**	Grid #:	**57-56-9**
Well Location:	**900 Enchanted Oak Driftwood, TX, TX 78619**	Latitude:	**30° 08' 37" N**
		Longitude:	**098° 00' 25" W**
Well County:	**Hays**	Elevation:	**1071 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **4/6/2007** Drilling End Date: **4/12/2007**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8**	**0**	**440**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**40**	**1Port;1HP**
	315	**340**	**3Port;1Benseal**

Seal Method: **Pressure Grout**

Sealed By: **Whisenant&Lyle Water Services, Inc.**

Distance to Property Line (ft.): **67+**

Distance to Septic Field or other concentrated contamination (ft.): **150**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Measured**

Surface Completion: **Surface Sleeve Installed**

Water Level: **165 ft.** below land surface on **2007-04-12** Measurement Method: **Unknown**

Packers: **6 Mil Poly 40'**
6 Mil Poly 120'
6 Mil Poly 140'
6 Mil Poly 220'
Shale Packer 340'

Type of Pump: **Submersible** Pump Depth (ft.): **400**

Well Tests: **Jetted** **Yield: 20+ GPM**

Water Quality:

Strata Depth (ft.)	Water Type
360-438	**Good**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Whisenant & Lyle Water Services, Inc.**

P. O. Box 525
Dripping Springs, TX 78620

Driller Name: **Martin Dale Lingle, Jr.** License Number: **54813**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**1**	**Topsoil**
1	**2**	**Claliche**
2	**3**	**Brown Clay**
3	**5**	**White Hard Limestone**
5	**6**	**Brown Limestone**
6	**11**	**Lt. Gray Hard Limestone**
11	**20**	**Dark Gray Limestone**
20	**24**	**Brown Limestone**
24	**30**	**Lt. Gray Limestone**
30	**33**	**Brown Limestone**
33	**35**	**Lt. Gray Limestone**
35	**37**	**Dark Gray Limestone**
37	**52**	**Lt. Gray Limestone**
52	**73**	**Brown Limestone**
73	**120**	**Lt. Gray Limestone**
120	**124**	**White Limestone**
124	**178**	**Gray White Limestone**
178	**182**	**Dark Gray Limestone**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4.5" N PVC-SDR 17IB +2' - 360'			
4.5" N PVC-17 SLOTTED.085 360' - 440'			

182	**238**	**Tan Gray Limestone**
238	**245**	**Gray Clay**
245	**290**	**Gray White Limestone**
290	**295**	**Brown Sandstone**
295	**340**	**Tan Limestone**
340	**360**	**Gray Tan Limestone**
360	**438**	**Tan Brown Limestone**
438	**440**	**Gray Clay**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #196594

Owner:	**Smith, Chris**	Owner Well #:	**RussTaylor#1**
Address:	**10651 Darden Hill Road Austin, TX 78737**	Grid #:	**58-49-7**
Well Location:	**10651 Darden Hill Road Austin, TX 78737**	Latitude:	**30° 09' 07" N**
		Longitude:	**097° 59' 59" W**
Well County:	**Hays**	Elevation:	**1151 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **9/10/2009** Drilling End Date: **9/15/2009**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8**	**0**	**620**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**40**	**9portland1hlplg**
	455	**480**	**3portland1bnsel**

Seal Method: **Pressure Grout**

Sealed By: **Whisenant & Lyle Water Services Inc**

Distance to Property Line (ft.): **195**

Distance to Septic Field or other concentrated contamination (ft.): **300+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Measured**

Surface Completion: **Pitless Adapter Used**

Water Level: **395 ft.** below land surface on **2009-09-15** Measurement Method: **Unknown**

Packers: **6MIL POLY- 40'**
6MIL POLY- 320'
6MIL POLY/SHALE PACKER- 480'

Type of Pump: **Submersible** Pump Depth (ft.): **560**

Well Tests: **Jetted** **Yield: 15+ GPM**

Water Quality:

Strata Depth (ft.)	Water Type
500' - 600'	**Good**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Whisenant & Lyle Water Services Inc.**

P.O. Box 525
Dripping Springs, TX 78620

Driller Name: **Martin D. Lingle** License Number: **54813**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**1**	**topsoil**
1	**2**	**caliche**
2	**4**	**brown limestone**
4	**6**	**yellow limestone**
6	**15**	**yellow brown limestone**
15	**25**	**grey limestone**
25	**27**	**brown limestone**
27	**30**	**grey limestone**
30	**45**	**brown yellow limestone**
45	**147**	**grey limestone**
147	**150**	**tan limestone**
150	**240**	**grey limestone**
240	**250**	**white limestone**
250	**300**	**grey limestone**
300	**302**	**tan limestone**
302	**330**	**grey limestone**
330	**383**	**brown limestone**
383	**420**	**brown grey limestone**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
4.5 N PVC-SDR17IB +2'-500'
4.5 N PVC-17SLOTTED.085 500'-600'
4.5 N PVC-SDR17IB 600'-620'

420	**520**	**tan sandstone**
520	**530**	**brown sandstone**
530	**590**	**brown limestone**
590	**615**	**grey limestone**
615	**620**	**grey clay hamitt**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #488933

Owner:	**RON BOWLING**	Owner Well #:	**No Data**
Address:	**1275 ENCHANTED OAKS DRIVE DRIFTWOOD, TX 78619**	Grid #:	**57-56-9**
Well Location:	**1275 ENCHANTED OAKS DRIVE DRIFTWOOD, TX 78619**	Latitude:	**30° 08' 45.84" N**
		Longitude:	**098° 00' 01.86" W**
Well County:	**Hays**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **7/9/2018** Drilling End Date: **7/9/2018**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
9	**0**	**100**
6.125	**100**	**530**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**100**	**TYPE H CEMENT 10 Bags/Sacks**
0	**100**	**Bentonite 2 Bags/Sacks**

Seal Method: **Pressure**

Sealed By: **Driller**

Distance to Property Line (ft.): **70**

Distance to Septic Field or other concentrated contamination (ft.): **150**

Distance to Septic Tank (ft.): **150**

Method of Verification: **OWNER**

Surface Completion: **Surface Sleeve Installed** **Surface Completion by Driller**

Water Level: **229 ft.** below land surface on **2018-07-31** Measurement Method: **Electric Line**

Packers: **Burlap at 100 ft.**
BURLAP & PLASTIC at 120 ft.
BURLAP & PLASTIC at 310 ft.
BURLAP & PLASTIC at 400 ft.
BURLAP & PLASTIC at 430 ft.

Type of Pump: **Submersible** Pump Depth (ft.): **500**

Well Tests: **Jetted** **Yield: 50+ GPM**

Water Quality:

Strata Depth (ft.)	Water Type
430 - 530	**MIDDLE TRINITY**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Centex Pump & Supply, Inc.**

2520 Hwy. 290 West
Dripping Springs, TX 78620

Driller Name: **MARTIN DALE LINGLE** License Number: **54813**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**5**	**TOP SOIL & ROCK**
5	**10**	**BLUE LIMESTONE**
10	**27**	**GRAY LIMESTONE**
27	**33**	**BROWN & TAN LIMESTONE**
33	**260**	**GRAY & TAN LIMESTONE**
260	**310**	**TAN LIMESTONE**
310	**380**	**GRAY LIMESTONE**
380	**400**	**GRAY/TAN LIMESTONE**
400	**520**	**TAN LIMESTONE**
520	**530**	**CLAY**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
5	**Blank**	**New Plastic (PVC)**	**SDR17**	**2**	**430**
5	**Perforated or Slotted**	**New Plastic (PVC)**	**SDR17 0.032**	**430**	**530**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #530774

Owner:	**Dripping Springs I.S.D.**	Owner Well #:	**DH-T1 west**
Address:	**510 W. Mercer St. dripping Springs, TX 78620**	Grid #:	**57-56-9**
Well Location:	**Darden Hill Rd. Dripping Springs, TX**	Latitude:	**30° 09' 10.4" N**
		Longitude:	**098° 00' 13.8" W**
	From intersection of CR164 and CR162. Go .51 miles east on CR162. Gate to enter property is on the right or south side of CR162.	Elevation:	**1148 ft. above sea level**
Well County:	**Hays**		

Type of Work: **New Well** Proposed Use: **Closed-Loop Geothermal**

Drilling Start Date: **10/17/2019** Drilling End Date: **10/31/2019**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**4.75**	**0**	**300**

Drilling Method: **Air Rotary**

Borehole Completion: **Pressure Tremie**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**300**	**Bentonite 16 Bags/Sacks**

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **N/A**

Distance to Septic Field or other concentrated contamination (ft.): **N/A**

Distance to Septic Tank (ft.): **N/A**

Method of Verification: **N/A**

Surface Completion: **Geo** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Michael Tolle**

6556 Indian Trail
Sanger, TX 76266

Driller Name: **Michael Tolle** License Number: **58457**

Comments: **Darden Hill test well WEST**

Report Amended on 12/30/2019 by Request #29518

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Overburden**
2	**20**	**Tan Caliche**
20	**300**	**Gray shale w/limestone**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
1	**Loop**	**New HDPE**	**DR11**	**0**	**300**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #530777

Owner:	**Dripping Springs I.S.D.**	Owner Well #:	**DH-T2E**
Address:	**510 W. Mercer St. Dripping Springs, TX 78620**	Grid #:	**57-56-9**
Well Location:	**Darden Hill Rd. dripping Springs, TX 78620**	Latitude:	**30° 09' 10.6" N**
		Longitude:	**098° 00' 16.9" W**
	From intersection of CR164 and CR162. Go .51 miles east on CR162. Gate to enter property is on the right or south side of CR162.	Elevation:	**1148 ft. above sea level**
Well County:	**Hays**		
Type of Work:	**New Well**	Proposed Use:	**Closed-Loop Geothermal**

Drilling Start Date: **10/17/2019** Drilling End Date: **10/31/2019**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**4.75**	**0**	**300**

Drilling Method: **Air Rotary**

Borehole Completion: **Pressure tremie**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**30**	**Bentonite 3 Bags/Sacks**
30	**300**	**TCS 3/8" gravel 1.5 Yards**

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **N/A**

Distance to Septic Field or other concentrated contamination (ft.): **N/A**

Distance to Septic Tank (ft.): **N/A**

Method of Verification: **N/A**

Surface Completion: **Geo** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
0 - 2	**Overburden**
2 - 20	**Tan caliche**
20 - 300	**Gray shale w/limestone**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Michael Tolle**

6556 Indian Trail
Sanger, TX 76266

Driller Name: **Michael Tolle** License Number: **58457**

Comments: **Darden Hill test well #2 east**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Overburden**
2	**20**	**Tan caliche**
20	**300**	**Gray shale w/limestone**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
1	**Loop**	**New HDPE**	**dr11**	**0**	**300**

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P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #575749

Owner:	**Dripping Springs I.S.D.**	Owner Well #:	**No Data**
Address:	**510 W. Mercer St. Dripping Springs, TX 78620**	Grid #:	**57-56-9**
		Latitude:	**30° 08' 56.53" N**
Well Location:	**11091 DARDEN Hill Rd. Driftwood, TX 78619**	Longitude:	**098° 00' 22.69" W**
Well County:	**Hays**	Elevation:	**1150 ft. above sea level**
Number of Wells Drilled:	**216**		

Type of Work: **New Well** Proposed Use: **Closed-Loop Geothermal**

Drilling Start Date: **10/9/2020** Drilling End Date: **12/14/2020**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**4.75**	**0**	**300**

Drilling Method: **Air Rotary**

Borehole Completion: **Pressure tremie**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**30**	**Bentonite 3 Bags/Sacks**
30	**300**	**TCS 3/8" gravel 1.5 Yards**

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **N/A**

Distance to Septic Field or other concentrated contamination (ft.): **N/A**

Distance to Septic Tank (ft.): **N/A**

Method of Verification: **N/A**

Surface Completion: **Geo** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Michael Tolle**

6556 Indian Trail
Sanger, TX 76266

Driller Name: **Michael Tolle** License Number: **58457**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**overburden**
2	**20**	**Tan caliche**
20	**300**	**Gray shal with limestone streaks**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
1	**Loop**	**New HDPE**	**DR11**	**0**	**300**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #78788

Owner:	**JENNIFER & ELIAS ANDERSON**	Owner Well #:	**No Data**
Address:	**980 ENCHANTED OAKS DRIFTWOOD, TX 78619**	Grid #:	**57-56-9**
		Latitude:	**30° 08' 37" N**
Well Location:	**980 ENCHANTED OAKS DRIFTWOOD, TX 78619**	Longitude:	**098° 00' 18" W**
Well County:	**Hays**	Elevation:	**1134 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **2/13/2006** Drilling End Date: **2/14/2006**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
8	**0**	**13**
6.75	**13**	**495**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**13**	**9 CEMENT**

Seal Method: **SLURRIED & POURED**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **268**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **STEEL TAPE**

Surface Completion: **Surface Sleeve Installed**

Water Level: **260 ft.** below land surface on **2006-02-20** Measurement Method: **Unknown**

Packers: **NEOPRENE 13**
NEOPRENE 405

Type of Pump: **Submersible** Pump Depth (ft.): **460**

Well Tests: **Jetted** **Yield: 30 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **BEE CAVE DRILLING, INC.**

185 ANGELFIRE DR.
DRIPPING SPRINGS, TX 78620

Driller Name: **BOBBY ROBERTS** License Number: **54416**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**TOPSOIL**
2	**18**	**CALICHE**
18	**230**	**GREY LIMESTONE**
230	**242**	**GREY CLAY**
242	**250**	**GREY LIMESTONE**
250	**415**	**GREY ROCK**
415	**420**	**TAN ROCK**
420	**495**	**WHITE & GREY ROCK W/B 30 GPM TDS 790**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
4.5 NEW PLASTIC 0 - 425
4.5 NEW SCREEN MFG. 425 - 485 .050
4.5 NEW PLASTIC 485 - 495

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT 23
SOIL EVALU ATION

SITE PREPARATION PLAN

SOIL SAMPLING/TESTING

Site Soils Investigation

Prepared for:

BURGESS & NIPLE, INC.
AUSTIN TEXAS
HAYS COUNTY
FEBRUARY 2025

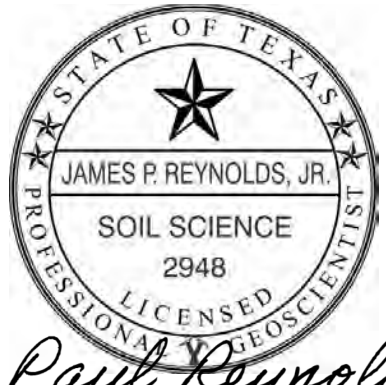
Prepared By:

Paul Reynolds, P.G. - Soil Scientist
PK double C Environmental Consulting
PO Box 778
Clarendon Texas 79226

CERTIFICATION

I certify that the content contained within this report is accurate to the extent of the data utilized in this report. The purpose of this report is to address generalities pertaining to the proposed drip irrigation operations as required by 30 TAC 222.

All information presented on this page and in the following supporting documents is true and accurate to the best of my knowledge.



Paul Reynolds February 24, 2025

Paul Reynolds, P.G. – Soil Scientist
PK double C Environmental Consulting

Executive Summary

Burgess and Niple, Inc., on behalf of Dripping Springs ISD, is applying for a new TCEQ Water Quality Permit (TLAP) for wastewater treatment to beneficially land apply treated municipal effluent via drip irrigation. The purpose of this report is to assist in the determination of land suitability and to assist in the planning phases of the project for the new drip irrigation system.

The proposed project will utilize a mixture of native vegetation and improved grasses for the main mechanism of wastewater application. All drip tubing will be placed on contour and plowed. Areas with subsurface drip installed will be overseeded with native grasses/vegetation and/or improved grasses, such as turf grasses.

As illustrated by this report, some of the areas proposed for irrigation may require site specific work/alterations where it pertains to vegetation and some specific soil conditions and limestone outcrops associated with the landscape. In areas where the soils exhibit shallowness, best management practices will need to be developed to alleviate concerns.

The proposed Total Nitrogen loading of the effluent will be insufficient to meet the maximum nitrogen potential/demands of the vegetation. Nutrient application rates at a rate less than required for maximum growth will result in a slower growth rate, thus helping to alleviate concerns with over application of nutrients.

It is recommended that a detailed site development plan be developed prior to beginning construction to list and address specific development issues associated with the implementation of the irrigation system. This report should address the removal of limestone, trees, the importation of soil/mulch to augment existing conditions, fertility, vegetative establishment and long term maintenance.

Table of Contents

Introduction

This report was developed by PK double C Environmental Consulting (PKCC) to provide technical services in support of the irrigation system at the proposed Dripping Springs ISD High School site.

A permit application will be submitted to the Commission on Environmental Quality (TCEQ) Water Quality Permit for land application of treated effluent. They are proposing beneficial reuse of the treated effluent through drip irrigation that will be located on property owned and operated by the District within the confines of the permitted property.

In environmentally sensitive areas, such as the Texas Hill Country, wastewater treatment systems can discharge to a nearby stream (where allowable), surface irrigate (spray systems) or use drip irrigation technology. Topographically, the typical Hill Country landscapes generally prohibit, or severely limit, the use of surface spray systems for treated effluent application. Characteristics of major concern are slope, rock outcrop, potential erosion hazards, shallow soils and the destruction of the native landscape (cutting trees) to ensure that the system will allow for even distribution.

Drip irrigation is the desired method of irrigation. These systems have scheduled dosing cycles and function well in the Hill Country and help alleviate concerns with erosion. The scheduled cycles generally allow for three extended rest periods during a 24 hour irrigation cycle. The resting periods are critical in allowing the soils to assimilate the water and nutrients applied.

Specific site characteristics are highly variable. Most of the variability is due to depth to the most restrictive horizon, generally bedrock. Management practices will need to be developed and initiated to account for the varying soil depths. A management system will need to be installed to allow for varying application rates and to set a dosing cycle for application events.

A site investigation was performed to obtain information that would assist in the design of the irrigation system. This report will summarize these results and will be utilized to assist in the development of the irrigation system to be used for treated effluent application.

Site Details

Geology

It is not the intent of the following geological assessment to be utilized for specific issues associated with the Dripping Springs ISD Property. This section is for general description only.

Some areas of The Central Texas Hill Country are unique in its topography. The limestone associated with the Glen Rose formation exhibits stair step type topography.

According to the Geologic Atlas of Texas, Austin Sheet, this site is predominately located on the Glen Rose Formation. The official description is;

The Glen Rose Formation is generally made up of alternating hard and soft beds that make up the formation and have resulted in the "stair-step hills" typical of the Central Texas Hill Country (Woodruff 1992). The characteristic stair-step topography occurs because of the different weathering and erosion rates of the formations alternating interbeds. The limestone and dolomite beds stand out as ledges capping the "risers" of the stair steps and forming the resistant substrate underlying the "treads". In contrast, the risers are eroded back to form the base of the risers.

The rock outcrops associated with the sloping topography of the Glen Rose formation are associated with the heel and toe of the underlying limestone formation. The areas between the heel and the toe generally have a gravelly, or stony, soil matrix that is generally deep enough to support a diverse plant community.

USDA – Soil Survey

A soils map is located in the Appendix I of this document. According to the results of the site investigation and visual observations, the soils at the site are **not** representative of the soils mapped and listed within the USDA-NRCS soil survey.

Climate

According to the USDA-NRCS Soil Survey for Travis County, Texas, the climate in Travis County is humid subtropical and is characterized by hot summers and relatively mild winters. Temperature, vegetative growth and rainfall are the climatic factors that have the greatest influence on the formation of soils in this area. The pattern of rainfall consists of interspersed wet and dry periods.

Soils

According to the Soil Survey, soils of the development site are dominated by the Bolar clay loam (mapped as BrB), Brackett-Rock Outcrop-Comfort Complex, which includes soils of the Brackett and Comfort series (mapped as BtD), Comfort-Rock outcrop complex (CrD), Doss silty clay (DoC), Purves clay (PuC), Real-Comfort-Doss complex (RcD) and soils of the Sunev clay loam series (SuB). This site also includes soils of the Valente (VoD) series that only make up approximately 2 acres out of the 70 acres associated with this property.

Table 1 illustrates the texture associated with each map unit. Additional information can be obtained from the USDA-NRCS specific information, attached to this document, pertaining to the soils illustrated within the attached soil map.

Table 1

Map Units, Unit Area and texture

Soil Map Unit	Unit Name	Acreage	Texture
BrB	Bolar	29.8	Clay Loam
BtD	Brackett-Rock outcrop-Comfort	48.6	Gravelly Clay Loam-Very Stony Clay
CrD	Comfort Rock outcrop	17.7	Very Stony Clay
DoC	Doss	2.8	Silty Clay
PuC	Purves	21.7	Clay
RcD	Real-Comfort-Doss complex	9.9	Gravelly Clay Loam-Very Stony Clay-Silty Clay
SuB	Sunev	20.4	Clay Loam
W		2.3	

Soil Summary

During the site investigation, it was determined that the soils of this site are not completely representative of those mapped within the Soil Survey. However, regardless of the extent of field work, there will be variations that can not be accounted for until construction begins. At that time, any and all features that are deemed unsuitable to the

development of the irrigation fields will be addressed. Care should be taken to ensure that the system meets the requirements of the permit and 30 TAC 222.

The soils, for the most part, are well suited for irrigation with treated wastewater via drip irrigation and can generally be classified Clay Loam and Clay material, without consideration of limestone fragments. In areas of the irrigation tracts that exhibit shallower soils, a cut and fill practice can be utilized to level and temper the landscape and ensure surface water runoff to assist in alleviating standing water on the irrigation fields.

Due to the evident of soil erosion from the past, there may be need to utilize subsurface and surface drip irrigation. The subsurface irrigation will be plowed into the soils to a prescribed depth. However, where the soils don't meet the prescribed depths, above and below, it may be necessary to pin the tubing to the surface then cover to the desired depths with mulch or soil, or a mixture of both.

Vegetation

The dominate woody vegetation of the southern portion of this site is Ash Juniper and Oak. Some of the subdominate woody species include Agarito, Prickly Pear, Texas Persimmon.

The herbaceous vegetation covers the majority of the property. Numerous species of grass and forbs were present. All of the grasses ranged from mid to tall varieties.

Profile Holes

The purpose of the subsoil evaluation was to determine the soil characteristics where the wastewater application is proposed. Multiple profile pits were dug and evaluated for specific soil characteristics. Overall the site was typical of the Glen Rose formation with fairly deep soil materials down gradient of each “toe” of the stair step of the Glen Rose stratigraphy.

Soils illustrate a deeper depth than indicated on the Soil Survey. located towards the exposed limestone near the toe of the tread, to four and five feet in depth along the “heel” of the tread and below the toe of the upper tread.

Field Summary Table
Dripping Springs High School – Darnel Road
PK double C Environmental Consulting

Profile Hole	Depth by Horizon	Number of Horizon Distinctions	Horizon	Horizon Characteristics	Texture (FSL, LFS, CL, LC, C)	Structure (SBK, blocky, massive, loose, single grained)	Total Depth of Hole	Total Rooting Depth	Dominate Limestone Fragment Size	% Fragments by dominate size
#1 East	0.5-1.0	7	O	Leaf Litter			27	24	0	0%
	3		A	Firm, Dark Br	Clay Loam	SBK			Gravel	<5%
	2		A1	Firm, Dark Br	Clay Loam	SBK-Blocky			Gravel	<5%
	2		B	Firm, Brown	Clay Loam	SBK-Blocky			Pebble	<10%
	9		B1	Lt Brown-Tan	L-Clay Loam	Gran-SBK			Pebble & soft calcium masses	20%
	8		B2	Tan	Loam	Single Grain			Pea Gravel & hard calcim Nodules	70%
	3		C	White/Tan	Loam	Single Grain – Platy/friable				
#2 West	2	5	A	Brown	Clay Loam	SBK	22	22	N/A	N/A
	4		B	Brown	Clay Loam	SBK-Blocky			Soft Ca Nodules and pebbles	25%
	6		B1	Brown-Tan	Loam	SBK-Single			Soft Ca Nodules and pebbles	30%
	7		B2	Brown-Tan	Loam	Single Grain			Soft Ca Nodules and pebbles	40%
	3		C	Tan-white	Loam	Single Grain			N/A	N/A
#3 West	2	4	A/O	Drk Brown	Clay Loam	Granulated	21	21	Gravel	10%
	6		A	Drk Brown	Clay Loam	Gran-SBK			Gravel	20%
	8		B	Drk Brown	Clay Loam	SBK-Blocky			Gr-Cobble	30%
	5		C	White/Tan	Loam	Single Grain – Platy/friable			N/A	N/A
#4 North	7		A	Lt. Brown	CL-Loam	Gran-SBK	38	35	Pebbly	20%
	8.5		B	Lt Brown-Tan	Clay Loam	Gran-SBK			Pebbly	25%
	10.5		B1	Tan-White	Loam	Single Grain			Gravel	5%
	9		B/C	Tan-White	Loam	Single Grain			N/A	N/A
	3		C	White/Tan	Loam	Single Grain			N/A	N/A

Management Plan

Site Development

The Irrigation Area Exhibit map (provided by others) illustrates proposed fields for the development of the irrigation fields. These areas vary in soil, topographic and general characteristics.

In developing the irrigation areas, upslope surface drainage will be accounted for to prevent adverse effects from run-on onto the treated effluent application areas. Areas where drainage appears to be concentrated, and active, will meet all buffer requirements from application of treated effluent. All drainage areas will be controlled in a manner to ensure that adverse conditions do not occur within the areas slated for application of treated effluent.

Site Preparation

Where native soils are not of sufficient depth, or significant amounts of limestone material requires removal, a suitable material will need to be imported to ensure that there is adequate rootable material beneath the irrigation system. This will ensure that there is sufficient rooting depth to allow for the growth of vegetation that will utilize the treated effluent.

Where soils may be imported, the surface of the existing soils will be scarified to a depth of 4-6 inches and left in a rough state. When placing the soils, a 4-6 inch layer should be placed on top of the scarified soils and then mixed into the existing soils. This will alleviate concerns with the development of artificial boundaries that can impede root development and water movement through the soil. After the material has been mixed, additional import material can be applied.

All sites should be graded for surface drainage and ensure that water is not allowed to stand on the surface. In areas where grading is complicated due to topographic variations, developed drainages may be placed and vegetated. The “developed” drainages may be included in the overall acreages for irrigation, but may require more detailed management. The developed drainages must be maintained with vegetation to alleviate concerns with erosion developing undesired drainage features.

Vegetation Selection

The primary goal of this to utilize vigorous growing grasses, especially on the southern portion of the property near the existing system for the existing school. On the northern portion of the property the proposed application is proposed to be more aesthetically appealing and may contain some native vegetation in a landscape scenario.

The selection of vegetative species should take into account the ultimate goals/usage of the irrigation tracts within the Districts Development Plan. The proposal for the treated

effluent application areas relying on herbaceous vegetation is to utilize a mixture of improved grasses (species such as, but not limited to bermuda grass and rye grass) along with select native species (woody and herbaceous species) for aesthetic purposes. Consideration for specified vegetation will need to account for site limitations associated with each area.

Portions of the existing vegetation, such as select trees, may be left to reside in the general areas of the proposed herbaceous irrigation fields. Existing woody species should be maintained to ensure maximum production. All areas are slated for green space/common space usage.

Vegetative Management

All herbaceous areas should be mowed and managed to ensure that the vegetation continues to exhibit vigorous growth habits and to maximize the uptake potential. A maintenance schedule should be put in place to ensure that a standing crop does not interfere with the establishment of the following seasons vegetation emergence.

Grass height should be maintained at a level that will optimize leaf production to ensure maximum leaf area for evaporation of applied treated effluent. The height requirement will be dependant upon the following;

1. operator
2. stated use of the property
3. specific species of grass/herbaceous vegetation
4. vegetative reproduction for long term sustainability

Mowing frequency should be dependant upon items 1-4, above, and the amount of total height removal. Mowing frequencies will vary throughout the year based upon seasonal changes and the decision should be made by the party responsible for maintaining the irrigated fields. All turf grass management is to ensure that the vegetation is maintained in a manner that will ensure longevity and viability of the vegetation.

It is virtually impossible to preliminarily establish requirements for mowing frequencies. In general, and the exception of plant reproduction, maximum vegetative height should be 6-8 inches with a minimum mowing height not to exceed 3-4 inches of the herbaceous material. Frequencies should be set by the vegetation growth rates and patterns, which are variety and seasonally specific. With the exception of the “end of season” cut, no more than 30-40% of the leaf material should be removed in one cutting. Inflorescent (flower/seed stalks or branches) portions of the plant **do not** count toward herbaceous/leaf height of all species in the vegetative mix, and ensuring that the average height does not exceed the maximum height of the herbaceous growth if an improved bermuda variety is to be utilized.

All clippings should be cut fine enough to allow for fall-through (mulching) in the canopies of the grasses to be grown. Municipal effluent, in general, especially tertiary

systems, do not supply enough total nutrients to maintain long term sustainability and vigor of turf grasses. Thus, removal of the clippings could be a detriment to the sustainability of the vegetation associated with the treated effluent application sites. Leaving the clippings on the fields can reduce, and even eliminate, the use of commercial fertilizers.

Fertility Management

It would be recommended that starter fertilizers be utilized in establishing vegetation. These recommendations should be based upon most current soil analyses. Soil sampling, effluent monitoring and crop requirements should be the determining factors of a fertility management program.

Recommended fertilizer rates would be 440 lb/Ac N and 185 lb/Ac P2O5 to be applied for areas of improved grasses at increments not to exceed 100 lb/Ac N. The second increment for N should be applied no less than 45 days after the initial application. If these applications are to include compost material, utilizing the most recent nutrient analysis for that material, applications would not have to occur incrementally. The following tables illustrate the nutritive summary and nitrogen budget for the irrigation sites.

Most bermuda and rye grass varieties have a high to very high salt tolerance (>6-8.0 mmhos). Due to the high quality of this effluent, it is not anticipated that salt will become a problem to the vegetation or within the soils.

When transitioning between seasonally associated grasses, the predecessor vegetation should be mowed closer to the ground to allow for the onset of the next seasons vegetation. For instance: If transitioning from bermuda to rye, during mid to late October, the bermuda would need to be mowed short to a height no greater than 2-3 inches, so the rye grass can establish as the dominate cool season vegetation. Conversely, when transitioning from rye grass to bermuda, the rye grass should be mowed to a shorter height of 2-3 inches no later than mid April to allow for the bermuda, and other warm season grasses, to establish. However, regardless of season, annual grasses should be allowed to set seed approximately one to two months prior to the establishment of the grasses for the following season.

Conclusions

The overall goal of the project is to minimize disturbance to the land areas selected for irrigation of treated wastewater. Due to the overall soil/site variations of the properties, the sites may need to be subdivided into areas of similar characteristics and then classified according to use potential where it pertained to methods of application.

Based on the nutrient analysis Nitrogen should not be a concern and hydraulic characteristics will be the determining factor in application rates. Through appropriate dosing cycles, drip and spray, nutrient and hydraulic applications will provide optimum growth to maximize water and nutrient utilization. Drip irrigation systems would incorporate the most efficient method of application due to the placement of the wastewater directly into the rooting zone at a prescribed dosing rate and schedule.

Near surface groundwater was not noted in any of the proposed areas. There were no indications during the subsoil investigations to indicate recurring problems with near surface groundwater.

APPENDIX I: Soil Map

Soil Map—Comal and Hays Counties, Texas
(DS ISD Proposed HS)

Map Scale: 1:6,420 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 21, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BrB	Bolar clay loam, 1 to 3 percent slopes	29.8	19.5%
BtD	Brackett-Rock outcrop-Comfort complex, 1 to 8 percent slopes	48.6	31.7%
CrD	Comfort-Rock outcrop complex, 1 to 8 percent slopes	17.7	11.5%
DoC	Doss silty clay, moist, 1 to 5 percent slopes	2.8	1.8%
PuC	Purves clay, 1 to 5 percent slopes	21.7	14.2%
RcD	Real-Comfort-Doss complex, 1 to 8 percent slopes	9.9	6.5%
SuB	Sunev clay loam, 1 to 3 percent slopes	20.4	13.3%
W	Water	2.3	1.5%
Totals for Area of Interest		**153.0**	**100.0%**

APPENDIX II: Pictures

Profile #1

Profile #2

Profile #3

Profile #4

APPENDIX III: Supporting Documentation

Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained by returning crop residue to the soil.

Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Reference:
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov)

Report—Physical Soil Properties

Physical Soil Properties–Comal and Hays Counties, Texas														
Map symbol and soil name	**Depth**	**Sand**	**Silt**	**Clay**	**Moist bulk density**	**Saturated hydraulic conductivity**	**Available water capacity**	**Linear extensibility**	**Organic matter**	**Erosion factors**			**Wind erodibility group**	**Wind erodibility index**
										Kw	**Kf**	**T**		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
BrB—Bolar clay loam, 1 to 3 percent slopes														
Bolar	0-14	20-34- 45	17-36- 53	27-30- 40	1.20-1.50	4.00-14.00	0.09-0.15	1.8-5.2	1.0-4.0	.20	.20	2	4L	86
	14-28	15-34- 45	15-36- 60	20-30- 40	1.20-1.50	4.00-14.00	0.09-0.15	0.7-4.9	0.5-2.0	.32	.32			
	28-80	—	—	—	—	0.42-14.00	—	—	—					
Denton	—	—	—	—	—	—	—	—	—					
Krum	—	—	—	—	—	—	—	—	—					
Doss	—	—	—	—	—	—	—	—	—					
Sunev	—	—	—	—	—	—	—	—	—					

Physical Soil Properties–Comal and Hays Counties, Texas														
Map symbol and soil name	**Depth**	**Sand**	**Silt**	**Clay**	**Moist bulk density**	**Saturated hydraulic conductivity**	**Available water capacity**	**Linear extensibility**	**Organic matter**	**Erosion factors**			**Wind erodibility group**	**Wind erodibility index**
										Kw	**Kf**	**T**		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
BtD—Brackett-Rock outcrop-Comfort complex, 1 to 8 percent slopes														
Brackett	0-6	20-34- 45	20-36- 53	26-30- 35	1.30-1.50	4.00-14.00	0.09-0.19	1.4-5.6	1.0-4.0	.15	.24	2	5	56
	6-14	20-34- 50	15-36- 53	18-30- 35	1.30-1.55	4.00-14.00	0.09-0.19	0.2-5.1	0.5-2.0	.15	.20			
	14-60	—	—	—	—	0.42-14.00	—	—	—					
Rock outcrop	0-48	—	—	—	—	0.42-14.00	—	—	—					
Comfort	0-6	12-25- 30	20-30- 40	35-45- 50	1.00-1.50	0.42-1.40	0.02-0.12	1.6-4.3	1.0-11.0	.05	.20	1	6	48
	6-13	3-10- 15	10-25- 40	55-65- 75	1.10-1.45	0.42-1.40	0.01-0.10	2.2-8.9	1.0-8.0	.02	.15			
	13-40	—	—	—	—	0.42-14.00	—	—	—					
Bolar	—	—	—	—	—	—	—	—	—					
Doss	—	—	—	—	—	—	—	—	—					
Purves	—	—	—	—	—	—	—	—	—					

Physical Soil Properties–Comal and Hays Counties, Texas														
Map symbol and soil name	**Depth**	**Sand**	**Silt**	**Clay**	**Moist bulk density**	**Saturated hydraulic conductivity**	**Available water capacity**	**Linear extensibility**	**Organic matter**	**Erosion factors**			**Wind erodibility group**	**Wind erodibility index**
										Kw	**Kf**	**T**		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
CrD—Comfort-Rock outcrop complex, 1 to 8 percent slopes														
Comfort	0-6	12-25- 30	20-30- 40	37-45- 50	1.00-1.50	0.42-1.40	0.02-0.12	1.7-4.3	1.0-11.0	.05	.20	1	6	48
	6-13	3-10- 15	10-25- 40	55-65- 75	1.10-1.45	0.42-1.40	0.01-0.10	2.1-8.8	1.0-8.0	.02	.15			
	13-40	—	—	—	—	0.42-14.00	—	—	—					
Rock outcrop	0-80	—	—	—	—	0.42-14.00	—	—	—					
Eckrant	—	—	—	—	—	—	—	—	—					
Purves	—	—	—	—	—	—	—	—	—					
Real	—	—	—	—	—	—	—	—	—					
Rumple	—	—	—	—	—	—	—	—	—					
DoC—Doss silty clay, moist, 1 to 5 percent slopes														
Doss	0-9	5- 7- 20	40-49- 55	40-44- 48	1.25-1.45	1.40-4.00	0.12-0.16	3.0-6.7	1.0-3.0	.28	.28	2	4	86
	9-17	5- 7- 30	35-49- 60	35-44- 48	1.20-1.45	1.40-4.00	0.12-0.16	3.0-6.3	1.0-3.0	.28	.28			
	17-80	—	—	—	—	0.42-14.00	—	—	—					
Brackett	—	—	—	—	—	—	—	—	—					
Bolar	—	—	—	—	—	—	—	—	—					
Denton	—	—	—	—	—	—	—	—	—					
Eckrant	—	—	—	—	—	—	—	—	—					
Purves	—	—	—	—	—	—	—	—	—					

Physical Soil Properties–Comal and Hays Counties, Texas														
Map symbol and soil name	**Depth**	**Sand**	**Silt**	**Clay**	**Moist bulk density**	**Saturated hydraulic conductivity**	**Available water capacity**	**Linear extensibility**	**Organic matter**	**Erosion factors**			**Wind erodibility group**	**Wind erodibility index**
										Kw	**Kf**	**T**		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
PuC—Purves clay, 1 to 5 percent slopes														
Purves	0-10	8-15- 40	20-38- 45	40-47- 55	1.15-1.45	1.40-4.00	0.12-0.20	5.5-11.4	1.0-5.0	.20	.20	1	4	86
	10-16	8-24- 40	20-29- 50	40-47- 55	1.20-1.45	1.40-4.00	0.08-0.18	4.7-10.8	1.0-4.0	.20	.20			
	16-19	8-24- 40	20-29- 50	40-47- 55	1.20-1.45	1.40-4.00	0.04-0.07	3.5-9.7	1.0-3.0	.20	.20			
	19-40	—	—	—	—	0.42-14.00	—	—	—					
Eckrant	—	—	—	—	—	—	—	—	—					
Brackett	—	—	—	—	—	—	—	—	—					
Doss	—	—	—	—	—	—	—	—	—					
Rock outcrop	—	—	—	—	—	—	—	—	—					

Physical Soil Properties–Comal and Hays Counties, Texas														
Map symbol and soil name	**Depth**	**Sand**	**Silt**	**Clay**	**Moist bulk density**	**Saturated hydraulic conductivity**	**Available water capacity**	**Linear extensibility**	**Organic matter**	**Erosion factors**			**Wind erodibility group**	**Wind erodibility index**
										Kw	**Kf**	**T**		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
RcD—Real-Comfort-Doss complex, 1 to 8 percent slopes														
Real	0-4	23-36- 45	28-38- 50	22-26- 32	1.03-1.55	4.00-14.00	0.05-0.12	1.2-3.5	2.0-10.0	.15	.28	2	5	56
	4-14	20-35- 45	18-39- 53	22-26- 40	1.06-1.55	4.00-14.00	0.04-0.10	0.4-4.2	1.0-8.0	.05	.20			
	14-40	—	—	—	—	0.42-14.00	—	—	—					
Comfort	0-6	12-25- 30	20-30- 40	35-45- 50	1.00-1.50	0.42-1.40	0.02-0.12	1.6-4.3	1.0-11.0	.05	.20	1	6	48
	6-13	3-10- 15	10-25- 40	55-65- 75	1.10-1.45	0.42-1.40	0.01-0.10	2.2-8.9	1.0-8.0	.02	.15			
	13-40	—	—	—	—	0.42-14.00	—	—	—					
Doss	0-9	20-22- 30	29-40- 50	30-38- 42	1.25-1.45	1.40-4.00	0.11-0.14	3.0-7.1	1.0-3.0	.20	.20	2	4L	86
	9-18	20-22- 30	26-40- 50	30-38- 48	1.28-1.50	1.40-4.00	0.09-0.16	1.7-7.6	1.0-3.0	.20	.20			
	18-41	—	—	—	—	0.42-14.00	—	—	—					
Rock outcrop	—	—	—	—	—	—	—	—	—					
Brackett	—	—	—	—	—	—	—	—	—					
Eckrant	—	—	—	—	—	—	—	—	—					
SuB—Sunev clay loam, 1 to 3 percent slopes														
Sunev	0-11	-34-	-37-	20-30- 40	1.30-1.50	4.00-14.00	0.11-0.16	3.0-5.9	1.0-3.0	.28	.28	5	4L	86
	11-35	-34-	-37-	20-30- 40	1.40-1.60	4.00-14.00	0.11-0.16	0.0-2.9	0.1-1.0	.32	.32			
	35-45	-34-	-37-	20-30- 40	1.40-1.60	4.00-14.00	0.11-0.16	0.0-2.9	0.1-1.0	.32	.32			
Unnamed	—	—	—	—	—	—	—	—	—					

Physical Soil Properties–Comal and Hays Counties, Texas														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
W—Water														
Water	—	—	—	—	—	—	—	—	—					

Data Source Information

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 21, Aug 30, 2024

Chemical Soil Properties

This table shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. It is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil.

Gypsum is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced saturated hydraulic conductivity and aeration, and a general degradation of soil structure.

Report—Chemical Soil Properties

Chemical Soil Properties–Comal and Hays Counties, Texas								
Map symbol and soil name	**Depth**	**Cation-exchange capacity**	**Effective cation-exchange capacity**	**Soil reaction**	**Calcium carbonate**	**Gypsum**	**Salinity**	**Sodium adsorption ratio**
	In	*meq/100g*	*meq/100g*	*pH*	*Pct*	*Pct*	*mmhos/cm*	
BrB—Bolar clay loam, 1 to 3 percent slopes								
Bolar	0-14	17-30	—	7.9-8.4	30-60	0	0.0-1.0	0
	14-28	9.5-24	—	7.9-8.4	30-80	0	0.0-2.0	0
	28-80	—	—	—	—	—	—	—
Denton	—	—	—	—	—	—	—	—
Krum	—	—	—	—	—	—	—	—
Doss	—	—	—	—	—	—	—	—
Sunev	—	—	—	—	—	—	—	—
BtD—Brackett-Rock outcrop-Comfort complex, 1 to 8 percent slopes								
Brackett	0-6	17-25	—	7.4-8.4	40-80	0	0.0-2.0	0
	6-14	9.5-21	—	7.4-8.4	40-90	0	0.0-2.0	0
	14-60	—	—	—	—	—	—	—
Rock outcrop	0-48	—	—	—	—	—	—	—
Comfort	0-6	29-42	—	6.1-7.8	0-2	0	0.0-2.0	0
	6-13	41-59	—	6.1-7.8	0-5	0	0.0-2.0	0-1
	13-40	—	—	—	—	—	—	—
Bolar	—	—	—	—	—	—	—	—
Doss	—	—	—	—	—	—	—	—
Purves	—	—	—	—	—	—	—	—

Chemical Soil Properties–Comal and Hays Counties, Texas								
Map symbol and soil name	**Depth**	**Cation-exchange capacity**	**Effective cation-exchange capacity**	**Soil reaction**	**Calcium carbonate**	**Gypsum**	**Salinity**	**Sodium adsorption ratio**
	In	*meq/100g*	*meq/100g*	*pH*	*Pct*	*Pct*	*mmhos/cm*	
CrD—Comfort-Rock outcrop complex, 1 to 8 percent slopes								
Comfort	0-6	29-42	—	6.1-7.8	0-2	0	0.0-2.0	0
	6-13	41-59	—	6.1-7.8	0-5	0	0.0-2.0	0-1
	13-40	—	—	—	—	—	—	—
Rock outcrop	0-80	—	—	—	—	—	—	—
Eckrant	—	—	—	—	—	—	—	—
Purves	—	—	—	—	—	—	—	—
Real	—	—	—	—	—	—	—	—
Rumple	—	—	—	—	—	—	—	—
DoC—Doss silty clay, moist, 1 to 5 percent slopes								
Doss	0-9	24-34	—	7.9-8.4	40-70	0	0.0-2.0	0
	9-17	20-28	—	7.9-8.4	40-70	0	0.0-2.0	0
	17-80	—	—	—	—	—	—	—
Brackett	—	—	—	—	—	—	—	—
Bolar	—	—	—	—	—	—	—	—
Denton	—	—	—	—	—	—	—	—
Eckrant	—	—	—	—	—	—	—	—
Purves	—	—	—	—	—	—	—	—

Chemical Soil Properties–Comal and Hays Counties, Texas								
Map symbol and soil name	**Depth**	**Cation-exchange capacity**	**Effective cation-exchange capacity**	**Soil reaction**	**Calcium carbonate**	**Gypsum**	**Salinity**	**Sodium adsorption ratio**
	In	*meq/100g*	*meq/100g*	*pH*	*Pct*	*Pct*	*mmhos/cm*	
PuC—Purves clay, 1 to 5 percent slopes								
Purves	0-10	30-38	—	7.6-8.4	5-40	0	0.0-2.0	0-1
	10-16	29-36	—	7.6-8.4	15-40	0	0.0-2.0	0-1
	16-19	28-35	—	7.9-8.4	15-50	0	0.0-2.0	0-1
	19-40	—	—	—	—	—	—	—
Eckrant	—	—	—	—	—	—	—	—
Brackett	—	—	—	—	—	—	—	—
Doss	—	—	—	—	—	—	—	—
Rock outcrop	—	—	—	—	—	—	—	—
RcD—Real-Comfort-Doss complex, 1 to 8 percent slopes								
Real	0-4	19-32	—	7.9-8.4	40-70	0	0.0-2.0	0
	4-14	16-38	—	7.9-8.4	40-70	0	0.0-2.0	0
	14-40	—	—	—	—	—	—	—
Comfort	0-6	29-42	—	6.1-7.8	0-2	0	0.0-2.0	0
	6-13	41-59	—	6.1-7.8	0-5	0	0.0-2.0	0-1
	13-40	—	—	—	—	—	—	—
Doss	0-9	18-29	—	7.9-8.4	40-70	0	0.0-2.0	0
	9-18	17-28	—	7.9-8.4	40-70	0	0.0-2.0	0
	18-41	—	—	—	—	—	—	—
Rock outcrop	—	—	—	—	—	—	—	—
Brackett	—	—	—	—	—	—	—	—
Eckrant	—	—	—	—	—	—	—	—

Chemical Soil Properties–Comal and Hays Counties, Texas								
Map symbol and soil name	**Depth**	**Cation-exchange capacity**	**Effective cation-exchange capacity**	**Soil reaction**	**Calcium carbonate**	**Gypsum**	**Salinity**	**Sodium adsorption ratio**
	In	*meq/100g*	*meq/100g*	*pH*	*Pct*	*Pct*	*mmhos/cm*	
SuB—Sunev clay loam, 1 to 3 percent slopes								
Sunev	0-11	15-25	—	7.9-8.4	15-45	0	0	0
	11-35	15-25	—	7.9-8.4	40-70	0	0	0
	35-45	15-25	—	7.9-8.4	40-70	0	0	0
Unnamed	—	—	—	—	—	—	—	—
W—Water								
Water	—	—	—	—	—	—	—	—

Data Source Information

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 21, Aug 30, 2024

LOCATION BRACKETT TX+OK

Established Series
Rev. GLL-CLN-WJG-JAM
07/2010

BRACKETT SERIES

The Brackett series consists of shallow to paralithic bedrock, well drained soils formed in residuum weathered from limestone of Cretaceous age, mainly from the Glen Rose formation. These nearly level to very steep soils are located on backslopes of ridges on dissected plateaus of the Edwards Plateau. Slopes are1 to 60 percent. Mean annual air temperature is about 19 degrees C (67 degrees F), and mean annual precipitation is about 737 mm (29 in).

TAXONOMIC CLASS: Loamy, carbonatic, thermic, shallow Typic Haplustepts

TYPICAL PEDON: Brackett paragravelly clay loam on rangeland. (Colors are for dry soil unless otherwise stated.)

A--0 to 15 cm (0 to 6 in); grayish brown (10YR 5/2) paragravelly clay loam, dark grayish brown (10YR 4/2) moist; moderate fine subangular blocky and granular structure; hard, friable; common fine roots; few masses and nodules of calcium carbonate; 15 percent weakly cemented limestone gravel; violently effervescent; moderately alkaline; clear smooth boundary. (Thickness of the A horizon is 8 to 30 cm [3 to 12 in])

Bk--15 to 36 cm (6 to 14 in); light gray (10YR 7/2) paragravelly clay loam, light brownish gray (10YR 6/2) moist; moderate fine subangular blocky and granular structure; hard, friable; common fine roots; few masses and nodules of calcium carbonate; 20 percent weakly cemented limestone gravel; violently effervescent; moderately alkaline; clear wavy boundary. (Thickness of the Bk horizon is 8 to 41 cm [3 to 16 in])

Cr--36 to 152 cm (14 to 60 in); weakly cemented, fractured and weathered limestone bedrock with vertical fractures that roots can enter, 10 to 25 cm (4 to 10 in) apart, interbedded with thin strata of pale yellow (2.5Y 7/3) and very pale brown (10YR 7/4) weathered chalk bedrock; moderately alkaline.

TYPE LOCATION: Hays County, Texas; from the intersection of Ranch Road 32 and Ranch Road 12 about 10 miles west of San Marcos, 6 miles west on Ranch Road 32 and 1,000 feet north of the road in rangeland. (Devils Backbone USGS topographic quadrangle; Latitude: 30 degrees, 3 minutes, 57.8 seconds N; Longitude: 98 degrees 11 minutes 18.4 seconds W; NAD83)

RANGE IN CHARACTERISTICS:
Depth to paralithic contact: 13 to 50 cm (5 to 20 in)
Pararock and rock fragments above the paralithic contact: Amount-0 to 34 percent, size-2 to 250 mm, kind-limestone
Effervescence: Strongly to violently
Calcium Carbonate Equivalent: 40 to 85 percent by weight
Reaction: Slightly alkaline or moderately alkaline

Particle-size control section (weighted average):
Silicate clay content: 18 to 30 percent
Carbonate clay content: 2 to 10 percent

A horizon
Hue: 10YR or 2.5Y
Value: 5 to 8

Chroma: 2 to 4
Texture: Loam or clay loam; and paragravelly and gravelly modifiers
Pararock and rock fragments: Amount-0 to 34 percent by volume, size-2 to 250 mm, kind-limestone
Other features: Where dry value is 5 or more, the organic carbon content is less than 2.5 percent

Bk horizon
Hue: 7.5YR to 2.5Y
Value: 5 to 8
Chroma: 2 to 4
Texture: Silt loam, loam, silty clay loam, or clay loam; and paragravelly and gravelly modifiers
Pararock and rock fragments: Amount-0 to 34 percent by volume, size-2 to 250 mm, kind-limestone
Identifiable secondary carbonate: Amount-1 to 4 percent by volume; kind-masses, concretions or nodules, location-around rock fragments, in the matrix, and throughout
Mottle features: brownish or grayish mottles in the matrix and along faces of peds and within porous limestone fragments in some pedons.

Cr layer
Hue: 10YR or 2.5Y
Value: 7 or 8
Chroma: 2 to 4
Other features: Secondary carbonate cementation where present, does not meet the thickness or continuity or fracture requirements of a petrocalcic horizon.
Cementation: Weakly cemented to moderately cemented
Bedrock features: Fracture interval-10 to 25 cm (4 to 10 in) apart horizontally, kind-limestone, chalk or marl.

COMPETING SERIES: Whitewright (TX) is a competing series in the same family. Similar soils are the Doss (TX), Keese (TX), Quinlan (OK+KS), and Spikebox (OK+TX).
Doss soils: Have a mollic epipedon.
Keese soils: Have a paralithic contact with weathered granite, granite grus, or gneiss of Precambrian Era.
Quinlan soils: Has a shallow contact with densic sandstone bedrock.
Spikebox soils: Has a paralithic contact with sandstone bedrock
Whitewright soils: Are moist in the control section for longer periods.

GEOGRAPHIC SETTING:
Parent material: Residuum weathered from limestone bedrock of Cretaceous period, mainly from the Glen Rose and Comanche Peak formations. Also, interbedded marls and chalks occur on such formations as the Walnut and Keys Valley marls.
Landscape: Dissected Plateaus
Landform: Backslopes of ridges
Landform notes: Occurs on benched or stair-stepped topography consisting of risers and treads, also. The Brackett soils are mainly on the treads.
Slope: 1 to 60 percent, but is mostly 1 to 20 percent
Climate: Dry subhumid
Soil moisture: Typic ustic moisture regime
Precipitation Pattern: The majority of the yearly amount occurs during the fall and spring months. The winter and summer months are normally drier.
Mean annual air temperature: 18 to 21 degrees C (64 to 69 degrees F)
Mean annual precipitation: 610 to 864 mm (24 to 34 in)
Frost free days: 210 to 270 days
Elevation: 107 to 746 m (600 to 2,450 ft)
Thornthwaite annual P-E indices: 32 to 52

GEOGRAPHICALLY ASSOCIATED SOILS: These are Cranfill (TX), Denton (TX), Doss (TX), Eckrant (TX), Karnes (TX), Kerrville (TX), Maloterre (TX), Real (TX), Tarrant (TX), Topsey (TX) and Valera (TX) series.

Cranfill, Denton, Doss, Karnes, Topsey, and Valera soils: Occur lower on the landscape in footslope positions.
Eckrant, Maloterre, and Tarrant soils: Occur higher on the landscape in summit, shoulder, and backslope positions.
Kerrville and Real soils: Occur on similar position in the landscape.

DRAINAGE AND PERMEABILITY: Well drained. Permeability is moderate. Permeability in the petrocalcic horizon is slow to very slow. Runoff is very low on 1 to 3 percent slopes, low on 3 to 5 percent slopes, and medium on 5 to 20 percent slopes and high on 20 to 60 percent slopes.

USE AND VEGETATION: Mainly used as rangeland. The climax plant community is a tall grass savannah with motts of live oak and Texas oak scattered throughout the landscape. The dominant grass is little bluestem. Other grasses include yellow Indiangrass, sideoats grama, tall grama, seep muhly, slim tridens, hairy grama, silver bluestem, slim tridens, tall dropseed, and perennial threeawns. Woody plants include live oak, Texas oak, kidneywood and shin oak. Forbs, such as bundleflower, sensitive briar, Maximilian sunflower, Engelmann daisy, and gayfeather, are found throughout the site. With over grazing, the site could potentially deteriorate to a plant population of Ashe juniper, Texas persimmon, agarito, live oak, threeawns, Texas grama, hairy tridens, red grama, prairie coneflower, broomweed, and ragweed.

DISTRIBUTION AND EXTENT: West-Central Texas; Southwest Plateaus and Plains Range and Cotton Region, LLR I: MLRA 81B and 81C-Edwards Plateau, Central and Eastern parts; and. Southwestern Prairies Cotton and Forage Region, LRR J: MLRA 85-Grand Prairie;. The series is extensive.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Temple, Texas

SERIES ESTABLISHED: Kinney County, Texas (Reconnaissance Soil Survey of Southwest Texas); 1911.

REMARKS: Classification was changed 11/89 from Typic Ustochrepts to Udic Ustochrepts. On 10/2001 the type location was moved to Hays County, and the depth was changed from very deep to shallow and the subgroup changed back to Typic which was the original series concept.

Diagnostic horizons and features recognized in this pedon are:
Ochric epipedon: 0 to 15 cm (0 to 6 in) (A horizon)
Cambic horizon: 15 to 36 cm (6 to 14 in) (Bk horizon)
Paralithic contact: 36 cm (14 in) (top of Cr layer)

ADDITIONAL DATA: None

TAXONOMIC VERSION: Keys to Soil Taxonomy, 11th Edition, 2010.

National Cooperative Soil Survey
U.S.A.

LOCATION REAL TX

Established Series
Rev. JWS-GLL-MLG-WJG-JAM
07/2010

REAL SERIES

The Real series consists of soils that are very shallow or shallow to paralithic limestone bedrock interbedded with marl and chalk. These well drained soils formed in residuum derived from limestone of Cretaceous age. These nearly level to steep soils are on summits, shoulders, and backslopes of ridges on dissected plateaus. Slope ranges from 1 to 40 percent, but are more commonly found on 1 to 8 percent slopes. Mean annual air temperature is about 19 degrees C (67 degrees F), and mean annual precipitation is about 762 mm (30 in).

TAXONOMIC CLASS: Loamy-skeletal, carbonatic, thermic, shallow Typic Calciustolls

TYPICAL PEDON: Real gravelly clay loam--in rangeland. (Colors are for dry soil unless otherwise stated.)

A--0 to 15 cm (0 to 6 in); dark grayish brown (10YR 4/2) gravelly clay loam, very dark grayish brown (10YR 3/2) moist; weak medium subangular blocky structure parting to moderate fine granular; hard, friable; many very fine and fine roots; 15 percent weakly cemented limestone and caliche gravel; 1 percent limestone cobbles and stones; violently effervescent; moderately alkaline; abrupt wavy boundary. (Thickness of the A horizon is 10 to 28 cm [4 to 11 in])

Ak--15 to 33 cm (6 to 13 in); dark grayish brown (10YR 4/2) extremely gravelly clay loam, very dark grayish brown (10YR 3/2) moist; weak medium subangular blocky structure parting to moderate fine granular; hard, friable; many very fine and fine roots; 75 percent weakly cemented limestone and caliche gravel; 1 percent limestone cobbles and stones; violently effervescent; moderately alkaline; abrupt wavy boundary. (Thickness of the Ak horizon is 15 to 38 cm [6 to 15 in])

Cr--33 to 91 cm (13 to 36 in); 80 percent white (10YR 8/1), 10 percent brownish yellow (10YR 6/6), and 10 percent light yellowish brown (2.5Y 6/3) moist weakly cemented limestone bedrock that is moderately cemented in the upper 2.5 cm (1 in)

TYPE LOCATION: Uvalde County, Texas; From the intersection of U.S. Highways 90 and 83 in Uvalde, 29.6 miles north on U.S. Highway 83 to a metal gate, 20 feet east and 50 feet south in rangeland in Garner State Park. (Reagan Wells USGS topographic quadrangle; Latitude: 29 degrees, 34 minutes, 32 seconds N; Longitude: 99 degrees, 45 minutes, 3 seconds W.; NAD83.)

RANGE IN CHARACTERISTICS:
Solum thickness: 20 to 48 cm (8 to 19 in) to paralithic limestone bedrock
Effervescence: Strongly or violently
Reaction: Slightly alkaline or moderately alkaline

Particle-size control section (weighted average):
Silicate clay content: 22 to 35 percent
Rock fragments and or pararock fragments: Amount-35 to 85 percent by volume, size-5 to 250 mm (0.2 to 10 in), kind-limestone, chalk, and caliche that are weakly to strongly cemented
Calcium carbonate equivalent: 40 to 70 percent by weight in the fine-earth fraction.

A and Ak horizons
Hue: 7.5YR or 10YR
Value: 3 to 5

Chroma: 1 to 3
Texture: loam or clay loam; and their gravelly to extremely gravelly phases
Silicate clay content: 22 to 35 percent
Carbonate clay content: 0 to 6 percent
Rock fragments and or pararock fragments: Amount-5 to 85 percent by volume, size-5 to 250 mm (0.2 to 10 in), kind-limestone and caliche that are weakly to strongly cemented
Identifiable secondary carbonate: Amount-0 to 10 percent by volume, size-fine to medium, contrast-distinct, kind-masses, coats, and nodules, location-on bottom surfaces and around rock fragments. Nodules of secondary carbonates are pararock fragments

Bk horizon (where present) is the same range as the A horizon except
Hue: 7.5YR or 10YR
Value: 4 to 6

Cr layer
Hue: 10YR to 2.5Y
Value: 6 to 8
Chroma: 1 to 8
Identifiable secondary carbonate: kind-masses and coats, cementation-weakly to moderately, location-throughout the bedrock note- In most pedons, the upper 1.5 to 8 cm (0.5 to 3 in) is plugged with calcium carbonate, but the continuity, crack spacing and or thickness or the layer fails the requirements of a petrocalcic horizon.

COMPETING SERIES: There are no competing series. Similar series are Boracho (TX+AZ), Dermott (TX), Doss (TX), Eola (TX), Laverne (TX+OK), and Mailtrail (TX).
Boracho, Dermott, Eola, Laverne and Mailtrail soils: Are shallow to a petrocalcic horizon.
Doss soils: Have less than 35 percent rock and or pararock fragments.

GEOGRAPHIC SETTING:
Parent material: Residuum derived from limestone of Cretaceous age, interbedded with marl and chalk..
Landscape: Dissected plateaus
Landform: Summits, shoulders, and backslopes of ridges
Slope: 1 to 40 percent
Climate: Dry subhumid
Soil moisture: Typic ustic moisture regime
Precipitation Pattern: The majority of the yearly amount occurs during the fall and spring months. The winter and summer months are normally drier.
Mean annual precipitation: 660 to 864 mm (26 to 34 in)
Mean annual air temperature: 18 to 21 degrees C (65 to 70 degrees F)
Frost-free period: 220 to 250 days
Elevation: 305 to 732 m (1,000 to 2,400 ft)
Thornthwaite annual P-E index: 38 to 50

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Aledo (TX), Brackett (TX), Campwood (TX), Eola (TX), Kavett (TX), Kerrville (TX), Tarrant (TX) and Valera (TX).
Aledo, Eola, and Tarrant soils: Occur higher on the landscape in summit, shoulder, and backslope positions.
Brackett, Kavett, and Valera soils: Occur lower on the landscape in footslope positions.
Campwood soils: Are very deep alluvial soils on stream terraces.
Kerrville soils: Occur on similar positions.

DRAINAGE AND PERMEABILITY: Well drained. Permeability is moderate. Runoff is very low on 1 to 3 percent slopes, low on 3 to 5 percent slopes, medium on 5 to 20 percent slopes, and high on 20 to 40 percent slopes.

USE AND VEGETATION: Used entirely as rangeland. The climax plant community is a tall grass and mid grass, oak savannah. The dominant grass is little bluestem. The other grasses are sideoats grama, tall grama,

yellow Indiangrass, silver bluestem, slim tridens, pinhole bluestem, cane bluestem, tall dropseed, hairy grama, and perennial threeawns. The dominant forbs include Engelmann daisy, bushsunflower, and sensitive briar. The woody plants include live oak, Texas oak, flameleaf sumac, evergreen sumac, agarito, and greenbriar. With heavy stocking rates the site could potentially deteriorate to a plant population of sideoats grama, seep muhly and live oak. If continuous heavy grazing continues for many years, Ashe juniper will increase and form a dense stand with an understory of plants, such as Texas grama, red grama, puff sheath dropseed, Lindheimer muhly, and Texas persimmon.

DISTRIBUTION AND EXTENT: West-Central Texas; Southwest Plateaus and Plains Range and Cotton Region, LLR-I: MLRA 81B-Edwards Plateau, Central Part; MLRA 81C-Edwards Plateau, Eastern Part; MLRA 82A-Texas Central Basin; Southwestern Prairies Cotton and Forage Region, LLR-J: MLRA 85-Grand Prairie. This series is extensive.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Temple, Texas

SERIES ESTABLISHED: Uvalde County, Texas; 1970.

REMARKS: The correct classification of this pedon as described is loamy rather than loamy-skeletal particle size class. It was not changed from its original classification until a study is completed. The pararock fragments function like rock fragments in the soil for most uses.

These soils were included with Tarrant soils which have a lithic contact of limestone bedrock. This series needs to be studied and redescribed where it is correlated to determine if the content of pararock fragments justifies the particle-size class of loamy, rather than loamy-skeletal, and if it has a petrocalcic horizon.

Diagnostic horizons and features recognized in this pedon are:
Mollic epipedon: 0 to 33 cm (0 to 13 in) (A and Ak horizons)
Calcic horizon: 15 to 33 cm (6 to 13 in) (Ak horizon)
Paralithic contact: 33 cm (13 in) (top of Cr layer)

ADDITIONAL DATA: None

TAXONOMIC VERSION: Keys to Soil Taxonomy, 11th Edition, 2010.

National Cooperative Soil Survey
U.S.A.

LOCATION PURVES TX+OK

Established Series
Rev. CLN-ACT-RM
08/2018

PURVES SERIES

The Purves series consists of shallow, well drained, moderately slowly permeable soils that formed in interbedded limestone and marl. These soils are on gently sloping to steep upland divides with plane to convex surfaces. Slopes are mainly 1 to 5 percent, but range from 1 to 40 percent.

TAXONOMIC CLASS: Clayey, smectitic, thermic Lithic Calciustolls

TYPICAL PEDON: Purves clay--pasture. (Colors are for dry soil unless otherwise stated.)

A--0 to 20 cm (0 to 8 in); very dark grayish brown (10YR 3/2) clay, very dark brown (10YR 2/2) moist; strong very fine subangular blocky and granular structure; very hard, firm; many fine roots; calcareous; moderately alkaline; gradual smooth boundary. (15 to 30 [6 to 12 in] thick)

Ak--20 to 30 cm (8 to 12 in); brown (10YR 4/3) clay, dark brown (10YR 3/3) moist; strong very fine subangular blocky and granular structure; hard, firm; common fine roots; few to common concretions and soft masses of calcium carbonate; calcareous; moderately alkaline; clear smooth boundary. (5 to 20 cm [2 to 8 in] thick)

Bk--30 to 36 cm (12 to 14 in); brown (10YR 5/3) very gravelly clay dark brown (10YR 3/3) moist; strong fine granular structure; hard, firm; contains about 70 percent fragments of limestone 3 to 15 cm (1 to 6 in) across the long axis; fragments have pendants and coatings of calcium carbonate 3 to 10 mm thick; many fine concretions; calcareous; moderately alkaline; abrupt smooth boundary. (0 to 13 cm [0 to 5 in] thick)

R--36 to 51 cm (14 to 20 in); indurated limestone, with a hardness by Moh's scale of 3 or more; contains a few fractures.

TYPE LOCATION: Erath County, Texas; from the center of Purves, Texas, 0.5 mile southeast of Farm Road 219; 0.27 mile northeast on private road, and 120 ft northwest of road in native grass pasture.

USGS topographic quadrangle:
Latitude 32 degrees, 00 minutes 13 seconds N;
Longitude 98 degrees, 15 minutes 33 seconds W.

RANGE IN CHARACTERISTICS:
Solum thickness ranges from 20 to 51 cm (8 to 20 in).
Fragments of limestone that are 2 mm to 25 cm (10 in) across the long axis range from none to 35 percent by volume of the material above the bedrock.
Secondary carbonates occur as concretions and soft masses and as coatings and pendants on fragments. Calcium carbonate equivalent ranges from 5 to 45 percent, but averages 15 to 40 percent in the AK and BK horizons.

A horizon
Hue: 10YR or 7.5YR
Value: 3 to 5 dry and 2 or 3 moist
Chroma: 1 to 3

Texture: clay loam, silty clay loam, silty clay, or clay with silicate clay content ranging from 35 to 55 percent, and includes textures with gravelly, cobbly, and stony textural class modifiers.

Bk horizon
Hue: 10YR or 7.5YR
Value: 3 to 5 dry and 2 or 3 moist
Chroma: 1 to 3
Texture: clay loam, silty clay loam, silty clay, or clay with silicate clay content ranging from 35 to 55 percent, and includes textures with gravelly, cobbly, and stony textural class modifiers.

R layer
Indurated limestone, with a hardness by Moh's scale of 3 or more; contains a few fractures.

COMPETING SERIES: There are no competing series in the same family. Similar soils are the Eckrant, Ector, Harper, Kavett, Lueders, Maloterre, Mereta, Stephen, Talpa, and Tarrant series.
Eckrant, Ector, Lueders, and Tarrant soils: have skeletal control sections.
Harper soils: have vertic properties and are noncalcareous.
Kavett and Mereta soils: have petrocalcic horizons.
Maloterre and Talpa soils: are in loamy families.
Stephen soils: have a paralithic contact.

GEOGRAPHIC SETTING:
Parent material: interbedded hard limestones and calcareous marls
Landscape: Dissected plateaus
Landform: backslopes of ridges
Slope: commonly 1 to 5 percent, but the range is 1 to 40 percent
Mean annual air temperature: 17.8 to 20.0 degrees C (64 to 68 degrees F)
Mean annual precipitation: 686 to 940 mm (27 to 37 in)
Frost-free period: 210 to 240 days
Elevation: 122 to 548.6 m (400 to 1800 ft)
Thornthwaite P-E Index: 40 to 60

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Denton, Dugout, Eckrant, Maloterre, San Saba, and Tarrant series.
Denton and San Saba soils: have sola thicker than 51 cm (20 in) and are in lower, less sloping positions.
Eckrant, Maloterre, Tarrant, and Dugout soils: are on similar or slightly higher positions, in addition, Dugout soils have loamy control sections and lack dark colored A horizons.

DRAINAGE AND PERMEABILITY:
Drainage class: Well.
Permeability class: Moderately slow.
Runoff: low on slopes less than 1 percent, medium on slopes of 1 to 5, high on slopes of 5 to 20, and very high on slopes greater than 20 percent

USE AND VEGETATION: Used mainly as rangeland, with some areas cultivated to small grains. Vegetation in rangeland is predominantly mid grasses, with some live oak and mesquite trees.

DISTRIBUTION AND EXTENT: Mainly in the Grand Prairie, Edwards Plateau, Texas North-Central Prairies, and Texas Blackland Prairie of Central Texas. The soil is extensive.

SOIL SURVEY REGIONAL OFFICE (SSRO) RESPONSIBLE: Temple, Texas

SERIES ESTABLISHED: Travis County, Texas; 1969.

REMARKS: Purves soils were formerly classified as a shallow phase of the Denton series.

Diagnostic horizons and features recognized in this pedon are:
Mollic epipedon: 0 to 36 cm (0 to 14 in) (A, AK, and BK horizons)
Calcic horizon: 30 to 36 cm (12 to 14 in) (AK and BK horizons)
Lithic feature: 36 cm (14 in)

ADDITIONAL DATA: None

TAXONOMIC VERSION: Keys to Soil Taxonomy, Twelfth Edition, 2014

National Cooperative Soil Survey
U.S.A.

LOCATION COMFORT TX

Established Series
Rev. WHD-CLG-WJG
01/2018

COMFORT SERIES

The Comfort series consists of soils that are shallow to indurated limestone bedrock. These well drained, slowly permeable soils that formed in clayey residuum derived from dolomitic limestone of Lower Cretaceous period. These nearly level to moderately sloping soils occur on ridges on dissected plateaus. Slopes are 0 to 8 percent. Mean annual temperature is about 18.9 degrees C (66 degrees F), and mean annual precipitation is about 914 mm (36 in).

TAXONOMIC CLASS: Clayey-skeletal, mixed, superactive, thermic Lithic Argiustolls

TYPICAL PEDON: Comfort very stony clay--rangeland. (Colors are for dry soil unless otherwise stated.)

A--0 to 13 cm (0 to 5 in); dark grayish brown (10YR 4/2) very stony clay, very dark grayish brown (10YR 3/2) moist; moderate medium angular blocky structure parting to moderate fine subangular blocky; very hard, very firm; many fine roots; few very fine tubular pores; 15 percent, 2 to 75 mm, non-flat, angular, limestone gravel; 40 percent, 76 to 600 mm, non-flat, limestone partially on the surface and in the soil; slightly alkaline; clear wavy boundary. (Thickness is 8 to 25 cm [3 to 10 in])

Bt--13 to 43 cm (5 to 17 in); dark reddish gray (5YR 4/2) very stony clay, dark reddish brown (5YR 3/2) moist; moderate medium subangular and angular blocky structure parting to moderate fine angular blocky; very hard, very firm; few fine and medium roots; patchy clay films; 40 percent, 76 to 600 mm, non-flat, angular limestone; many roots matted at soil rock interfaces; slightly alkaline; abrupt wavy boundary. (Thickness is 18 to 36 cm [7 to 14 in])

R--43 to 69 cm (17 to 27 in); indurated crystalline dolomitic limestone bedrock with irregular seams filled with soil.

TYPE LOCATION: Kendall County, Texas; from the intersection of Ranch Road 474 and U.S. Highway 87 in Boerne, northwest on U.S. 87 to Interstate Highway 10 west access road, then northwest 1 mile to Cibolo Creek Road, then west approximately 3 miles to entrance to a subdivision, then south on a paved road, 1.3 miles, then west 0.3 mile on top of a ridge in rangeland.
USGS topographic quadrangle: Ranger Creek, TX;
Latitude: 29 degrees, 49 minutes, 17.9 seconds N;
Longitude: 98 degrees, 48 minutes, 48.3 seconds W;
Datum: WGS84

RANGE IN CHARACTERISTICS:
Soil moisture: Typic ustic soil moisture regime. The soil moisture control section is dry in some or all parts for more than 90 but less than 150 cumulative days in normal years.
Depth to lithic contact: 25 to 51 cm (10 to 20 in)
Thickness of mollic epipedon: 18 to 51 cm (7 to 20 in)
Surface rock fragments: 0 to 90 percent, limestone, 2mm to more than 600 mm

Particle-size control section (weighted average):

Clay content: 40 to 60 percent
Fragments: 35 to 75 percent by volume, crystalline dolomitic limestone and chert, 2 mm to 600 mm

A horizon
Hue: 5YR to 10YR
Value: 2 dry
Chroma: 3 or 4 dry
Texture: Clay loam or clay; with the very gravelly, very cobbly, or very stony phases.
Clay content: 30 to 50 percent
Rock fragments: 35 to 60 percent total by volume, limestone; 5 to 25 percent, 2 to 75 mm, chert; 15 to 50 percent, 76 to 600 mm, crystalline dolomitic limestone
Effervescence: none or very slight
Reaction: Slightly acid to slightly alkaline

Bt horizon
Hue: 2.5YR to 7.5YR
Value: 2 to 6
Chroma: 3 or 4
Texture: Clay; very gravelly, very cobbly, or very stony phases
Clay content: 55 to 75 percent
Rock fragments: 35 to 75 percent total by volume, limestone; 5 to 25 percent, 2 to 75 mm, chert; 15 to 50 percent, 76 to 600 mm, crystalline dolomitic limestone
Effervescence: none or slight
Reaction: Slightly acid to slightly alkaline

R layer
Bedrock kind: Dolomitic limestone bedrock
Cementation: Strongly cemented or indurated

COMPETING SERIES: There are no other series in the same family. Similar series include the Bexar, Eckrant, Hensley, Roughcreek, Rumple, Speck, Spicewood, Tarpley, and Tarrant series.
Bexar, Rumple, and Spicewood soils: are more than 51 cm (20 in) deep to bedrock.
Eckrant and Tarrant soils: do not have argillic horizons.
Hensley soils: do not have mollic epipedons.
Roughcreek soils: have smectitic mineralogy.
Speck and Tarpley soils: have less than 35 percent coarse fragments in the particle-size control section.

GEOGRAPHIC SETTING:
Parent material: The soil formed in residuum weathered from dolomitic limestone of Lower Cretaceous age.
Landscape: Dissected plateaus
Landform: Summits, shoulders, and backslopes of ridges
Slope: 0 to 8 percent, mostly less than 5 percent
Climate: Dry subhumid
Precipitation Pattern: The majority of the yearly amount occurs during the fall and spring months. The winter and summer months are normally drier.
Mean annual precipitation: 584 to 914 mm (23 to 36 in)
Thornthwaite P-E indices: 42 to 50
Mean annual temperature: 17.8 to 20.6 degrees C (64 to 69 degrees F)
Frost-free periods: 210 to 260 days
Elevation: 304.8 to 731.5 m (1,000 to 2,400 ft)

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Brackett, Eckrant, Real, and Tarpley series.
Brackett and Real soils: do not have argillic horizons and occur on side slopes of ridges on dissected plateaus. In addition, Brackett soils do not have mollic epipedons.

Eckrant and Tarpley soils: occur on similar positions.

DRAINAGE AND PERMEABILITY:
Drainage class: Well.
Permeability class: Slow.
Runoff: high on 0 to less 1 percent slopes, high on 1 to 5 percent slopes, and very high on 5 to 8 percent slopes.

USE AND VEGETATION: Mostly used for rangeland and rural homesites. Native vegetation consists mostly of Texas wintergrass, threeawns, sideoats grama, little bluestem, and indiangrass. Woody vegetation consists of Texas oak, shin oak, liveoak, Texas persimmon and pricklypear.

DISTRIBUTION AND EXTENT: Central Texas; Southwest Plateaus and Plains Range and Cotton Region, LLR I: MLRA 81B-Edwards Plateau, Central Part; MLRA 81C-Edwards Plateau, Eastern Part; MLRA 82A-Texas Central Basin. This series is extensive, over 100,000 acres.

SOIL SURVEY REGIONAL OFFICE (SSRO) RESPONSIBLE: Temple, Texas

SERIES ESTABLISHED: Kendall County, Texas; 1979.

REMARKS: Comfort series was formerly included in the Tarrant series.

Edited 10/2016 (RFG-THW): Updated competing series, geographic setting, and associated soils sections.

Diagnostic horizons and features recognized in this pedon are:
Mollic epipedon: 0 to 43 cm (0 to 17 in) (A and Bt horizon)
Argillic horizon: 13 to 43 cm (5 to 17 in) (Bt horizon)
Lithic Contact: 43 cm (17 in) (top of R layer)

ADDITIONAL DATA: none

Taxonomic Version: Keys to Soil Taxonomy, Twelfth Edition, 2014.

National Cooperative Soil Survey
U.S.A.

LOCATION BOLAR TX

Established Series
Rev. GLL:CLN
04/2022

BOLAR SERIES

The Bolar series consists of moderately deep, well drained, moderately permeable soils formed in interbedded limestones and calcareous marls formed in residuum. These occur on summits, shoulders, and backslopes of ridges on hills. The slopes range is 1 to 15 percent. Mean annual precipitation is about 711 to 914 mm (28 to 36 in) and mean annual air temperature is about 17.8 to 20 degrees C (64 to 68 degrees F).

TAXONOMIC CLASS: Fine-loamy, carbonatic, thermic Udic Calciustolls

TYPICAL PEDON: Bolar clay loam--cultivated. (Colors are for dry soil unless otherwise stated.)

Ap--0 to 15 cm (0 to 6 in); brown (10YR 4/3) clay loam; dark brown (10YR 3/3) moist; weak fine subangular blocky and granular structure; hard, friable; few fine strongly cemented calcium carbonate concretions; moderately alkaline; calcareous; abrupt smooth boundary. (Thickness is 10 to 20 cm [4 to 8 in])

A--15 to 41 cm (6 to 16 in); dark brown (10YR 3/3) clay loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky and granular structure; hard, friable; few strongly cemented calcium carbonate concretions; moderately alkaline; calcareous; clear smooth boundary. (Thickness is 7 to 30 cm [3 to 12 in])

Bk1--41 to 71 cm (16 to 28 in); pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; moderate fine subangular blocky and granular structure; hard, firm; common fine strongly cemented concretions and few threads and films of calcium carbonate; moderately alkaline; calcareous; gradual smooth boundary. (Thickness is 20 to 38 cm [8 to 15 in])

Bk2--71 to 81 cm (28 to 32 in); very pale brown (10YR 7/3) clay loam, pale brown (10YR 6/3) moist; moderate fine subangular blocky and granular structure; hard, firm; common fine strongly cemented concretions and common films and threads of calcium carbonate; few fragments of limestone less than 8 cm (3 in) across; moderately alkaline; calcareous; clear smooth boundary. (Thickness is 0 to 20 cm [0 to 8 in])

Bk3--81 to 91 cm (32 to 36 in); interbedded yellowish brown (10YR 5/4) clay loam and limestone; weak fine subangular blocky structure; 30 percent by volume of limestone fragments up to 13 cm (5 in) across the long axis; common soft masses, films and threads of calcium carbonate; moderately alkaline; calcareous; abrupt smooth boundary. (Thickness is 0 to 18 cm [0 to 7 in])

R--91 to 112 cm (36 to 44 in); indurated limestone bedrock, that is fractured and interbedded with calcareous marly clay.

TYPE LOCATION: Erath County, Tx; from the intersection of Loop 195 and Farm Road 914, in the south part of Stephenville, Texas; 5.6 miles south on Farm Road 914, then 80 yards east of the road in the north edge of a cultivated field. USGS topographic quadrangle: Stephenville, Texas; Latitude: 32 degrees, 8 minutes, 52.37 seconds N; Longitude: 98 degrees, 11 minutes, 20.17 seconds W; Datum: WGS84. UTM Easting 576487.14 m, UTM Northing 3557115.31 m, UTM Zone 14.

RANGE IN CHARACTERISTICS:

Soil Moisture: Ustic soil moisture regime. The soil moisture control section is dry in some or all parts for more than 90, but less than 120 days in normal years.
Depth to lithic contact: 51 to 102 cm (20 to 40 in)
Depth to secondary calcium carbonate: 33 to 51 cm (13 to 20 in)
Thickness of the mollic epipedon: 33 to 51 cm (13 20 in)
Particle-size control section (weighted average)
Clay content: 20 to 35 percent
Rock fragments: 1 to 35 percent
CCE: 40 to 75

A Horizon
Hue: 7.5YR or 10YR
Value: 2 to 5
Chroma: 2 or 3
Texture: loam, clay loam, silty clay loam, or their gravelly counterparts.
Clay content: 20 to 35 percent
Rock fragments: 1 to 35 percent; 2 to 457 mm; limestone fragments
Effervescence: strong
Reaction(pH): moderately alkaline (7.9 to 8.4)

Bk Horizons
Hue: 7.5YR, 10YR, or 2.5Y
Value: 4 to 7
Chroma: 2 to 6
Texture: loam, clay loam, or silty clay loam, or their gravelly counterparts.
Clay content: 20 to 35 percent
Rock fragments: 1 to 35 percent; 2 to 457 mm; limestone fragments and indurated carbonate concretions
Calcium carbonate equivalent: 40 to 75 percent
Effervescence: strong to violent
Reaction(pH): moderately alkaline (7.9 to 8.4)

R Layer
Indurated fractured limestone interbedded with chalky limestone, marl, or marly clay at vertical intervals of about 2 to 5 cm (6 to about 12 in).

COMPETING SERIES: These are the Carbengle, Rumley, Sunev, and Topsey series in the same family. Carbengle, Rumley, Sunev, and Topsey soils: lack a lithic contact within 102 cm (40 in).

GEOGRAPHIC SETTING:
Parent material: residuum derived from interbedded limestones and calcareous marls of cretaceous age mainly in the Georgetown, Denton clay, Fort Worth limestone, Duck Creek limestone, and Kiamichi clay formations
Landscape: Hills
Landform: Summits, shoulders, and backslopes of ridges
Slope: 1 to 15 percent
Precipitation Pattern: The majority of the yearly amount occurs during the fall and spring months. The winter and summer months are normally drier.
Mean annual precipitation: 711 to 914 mm (28 to 36 in)
Thornthwaite P-E Index: 44 to 56

Mean annual air temperature: 18 to 20 degrees C (64 to 68 degrees F)
Frost-free period: 197 to 263 days
Elevation: 198.1 to 463 m (650 to 1519 ft)

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Denton, Purves, Somervell, Venus, Brackett, Dugout, Karnes, and Tarrant series.
Denton soils: more clay in surface horizons
Purves soils: more clay and a lithic contact at 20 to 51 cm
Somervell soils: contain more than 35 percent coarse fragments in the control section
Venus soils: less than 40 percent carbonates in the control section
Brackett and Dugout soils: are shallow soils with light colored surface layers.
Karnes soils: have a light-colored surface layer and a coarse-loamy control section.
Tarrant soils: are shallow and have a clayey-skeletal control section.

DRAINAGE AND PERMEABILITY: Well drained. Permeability is moderate. Runoff is medium to rapid.

USE AND VEGETATION: Mostly used for pasture or range. Some areas are used for growing small grains, sorghums, cotton, and corn. Native vegetation is dominantly midgrasses, including little bluestem and sideoats grama.

DISTRIBUTION and EXTENT: moderate
In Texas; mostly in the Grand Prairie area of central and north-central Texas; LRR J; MLRA 85
SOIL SURVEY REGIONAL OFFICE (SSRO) RESPONSIBLE: Temple, Texas

SERIES ESTABLISHED: Eastland County, Texas; 1972.

REMARKS: The Bolar series formerly was included in the Denton series.

Diagnostic features and horizons recognized in this pedon are:
Particle size control section: 25 to 91 cm (10 to 36 in). (A, Bk1, Bk2, and Bk3 horizons)

Mollic epipedon - 0 to 41 cm (0 to 16 in). (Ap and A horizons)Calcic horizon - 41 to 91 cm (16 to 36 in). (Bk1, Bk2, and Bk3 horizons)Lithic contact - at 91 cm (36 in) contact with indurated limestone bedrock

Additional Comments: Classification was changed 11/89 from Typic Calciustolls to Udic Calciustolls.

ADDITIONAL DATA: 96TX143011, 96TX143014
Taxonomic Version: Keys to Soil Taxonomy, Twelfth Edition, 2014

National Cooperative Soil Survey
U.S.A.

LOCATION DOSS TX

Established Series
Rev. JEA-WHD-CLN
11/2013

DOSS SERIES

The Doss series consists of shallow to weakly cemented limestone, well drained, moderately slow permeable soils that formed in calcareous loamy and clayey residuum derived from marls and limestone. These very gently to moderately sloping soils occur on hill slopes on dissected plateaus. Slope ranges from 1 to 8 percent. Mean annual precipitation is about 762 mm (30 in), and mean annual air temperature is about 18.9 degrees C (66 degrees F).

TAXONOMIC CLASS: Loamy, carbonatic, thermic, shallow Typic Calciustolls

TYPICAL PEDON: Doss silty clay--rangeland.
(Colors are for dry soil unless otherwise stated.)

A--0 to 20 cm (0 to 8 in); dark grayish brown (10YR 4/2) silty clay, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; very hard, very firm; many fine and medium roots; common fine pores; common very fine masses of calcium carbonate; about 3 percent weakly cemented fragments of calcium carbonate about 6 mm (1/4 in) across the long axis; strongly effervescent; moderately alkaline; clear smooth boundary. Thickness is 13 to 30 cm (5 to 12 in)

Bk--20 to 48 cm (8 to 19 in); brown (10YR 5/3) silty clay, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; very hard, very firm; common fine and few medium roots; common fine pores; common insect burrows; many fine masses and weakly cemented concretions of calcium carbonate; few angular fragments of weakly cemented limestone up to 6 mm (1/4 in) across the long axis; strongly effervescent; moderately alkaline; clear smooth boundary. Thickness is 15 to 33 cm (6 to 13 in)

Cr--48 to 122 cm (19 to 48 in); very pale brown (10YR 8/4) weakly cemented marlaceous limestone interbedded with silty clay, very pale brown (10YR 7/4) moist; platy in the upper 3 inches with hardness of 2.0 on Mohs scale, massive below and hardness of about 1 on Mohs scale; many veins and bodies of calcium carbonate; strongly effervescent; moderately alkaline.

TYPE LOCATION: Gillespie County, Texas; 5.8 miles east of courthouse in Fredericksburg on U.S. Highway 290 to the intersection of Ranch Road 1376; 4.2 miles south to intersection with Luckenbach - Grapetown Road; 2.2 miles west and 0.4 mile north into pasture.
USGS topographic quadrangle: ?; Latitude: 30 degrees, 10 minutes, 9.3 seconds N; Longitude: 98 degrees, 46 minutes, 59.6 seconds W; Datum: NAD83.

RANGE IN CHARACTERISTICS:
Soil Moisture: Typic-ustic soil moisture regime
Depth to bedrock: 28 to 51 cm (11 to 20 inches)

Particle-size control section (weighted average):
Total clay content: 27 to 48 percent
Silicate clay content: 20 to 35 percent and decreases with depth in most pedons.
Rock fragments: 0 to 15 percent; limestone gravel and cobbles

Calcium carbonate equivalent: 40 to 70 percent in the less than 20 mm fraction

A horizon
Hue: 7.5YR and 10YR
Value: 3 to 5
Chroma: 2 or 3
Texture: clay, silty clay, silty clay loam, clay loam
Some pedons have secondary forms of calcium carbonate in the lower part.
Calcium carbonate equivalent: 40 to 70 percent
Effervesence: strong
Reaction: moderately alkaline

Bk horizon (where present)
Hue: 5YR to 10YR
Value: 4 to 6
Chroma: 2 to 4
Texture: clay, silty clay, silty clay loam, clay loam
Calcium carbonate equivalent: 40 to 70 percent
Effervesence: strong
Reaction: moderately alkaline

Cr horizon
Hue: 7.5YR to 10YR
Value: 7 or 8
Chroma: 2 to 4
Texture: limestone interbedded with limy earth of clayey and loamy textures that is assumed to be partially secondary accumulations of calcium carbonate
Cementation: weakly to moderately cememted

COMPETING SERIES: There are no other series in the same family. Similar soils are the Brackett, Cho, Denton, Kerrville, Mereta, Oplin, Prade, and Real series.
Brackett: does not have a mollic epipedon
Cho: has a petrocalcic horizon
Denton: is more than 50 cm (20 in) deep to bedrock and has more than 35 percent silicate clay and less than 40 percent calcium carbonate equivalent in the particle-size control section.
Kerrville: has a loamy-skeletal particle-size control section and does not have a mollic epipedon
Mereta: has a clayey particle-size control section and a petrocalcic horizon
Oplin: has a loamy-skeletal particle-size control section and a lithic contact
Real: has a loamy-skeletal particle-size control section

GEOGRAPHIC SETTING:
Parent Material: calcareous loamy and clayey residuum derived from marls and weakly cemented limestone of mostly Lower Cretaceous age
Landscape: dissected plateaus
Landform: very gently to moderately sloping hill slopes
Slope: 1 to 8 percent
Mean annual precipitation: 610 to 914 mm (24 to 36 in)
Thornthwaite P-E Index: 40 to 48
Mean annual air temperature: 17.8 to 20.0 degrees C(64 to 68 degrees F)
Frost Free period: 210 to 240 days
Elevation: 320.1 to 731.5 m (1050 to 2400 ft)

GEOGRAPHICALLY ASSOCIATED SOILS: These are the competing Brackett, Denton, and Kerrville series, and the Krum and Tarrant series.

Brackett and Kerrville soils occur on steeper slopes.
Denton soils occur on lower positions.
Tarrant soils have a clayey-skeletal particle-size control section, a lithic contact, and occur on similar positions.
Krum soils have sola more than 102 cm (40 in) thick and occur on lower positions.

DRAINAGE AND PERMEABILITY: Well drained. Permeability is moderately slow. Runoff is medium on 1 to 5 percent slopes and high on 5 to 8 percent slopes.

USE AND VEGETATION: The major uses are rangeland or small grains. Native grasses include little bluestem, sideoats grama, and Texas wintergrass. Scattered live oak and post oak trees are present.

DISTRIBUTION AND EXTENT: Edwards Plateau, Eastern Part (MLRA 81C) and Grand Prairie (MLRA 85) of Texas. The series is of large extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Temple, Texas

SERIES ESTABLISHED: Gillespie County, Texas; 1970.

REMARKS:
Edited 11/2013 (RFG-JRJ): Converted to tabular format and added metric measurements. Updated the competing series, geographic setting, and associated soils sections.

Diagnostic horizons and features recognized in this pedon are:
Mollic epipedon - 0 to 20 cm (0 to 8 in) (A horizon)
Calcic horizon - 20 to 48 cm (8 to 19 in) (Bk horizon)
Paralithic contact - 48 cm (19 in) (top of the Cr horizon)

ADDITIONAL DATA: KSSL data: S09TX171004-Gillespie, Texas

Taxonomic Version: Keys to Soil Taxonomy, Eleventh Edition, 2010

National Cooperative Soil Survey
U.S.A.

LOCATION SUNEV TX

Established Series
CLG-RMR
08/2017

SUNEV SERIES

The Sunev series consists of very deep, well drained soils that formed in loamy alluvium. These soils are on nearly level to moderately steep stream terraces or footslopes of valleys and ridges. Slope ranges from 0 to 15 percent. Mean annual air temperature is about 17 to 21 degrees C (62 to 69 degrees F), and mean annual precipitation is about 711 to 864 cm (28 to 34 in).

TAXONOMIC CLASS: Fine-loamy, carbonatic, thermic Udic Calciustolls

TYPICAL PEDON: Sunev loam--cropland. (Colors are for dry soil unless otherwise stated.)

Ap--0 to 15 cm (0 to 6 in); dark grayish brown (10YR 4/2) loam, very dark grayish brown (10YR 3/2) moist; thin light brownish gray surface crust; moderate fine and medium granular structure; hard, friable; common wormcasts; few fine fragments of snail shells; violently effervescent; moderately alkaline; abrupt smooth boundary.

A--15 to 30 cm (6 to 12 in); dark grayish brown (10YR 4/2) loam, very dark grayish brown (10YR 3/2) moist; strong fine and medium granular structure; hard, friable; common wormcasts and holes; common fine fragments of snail shells; few films of calcium carbonate; calcium carbonate equivalent about 35 percent; violently effervescent; moderately alkaline; gradual smooth boundary. (Combined thickness of the A horizon is 23 to 48 cm [9 to 19 in])

Bk1--30 to 53 cm (12 to 21 in); brown (10YR 5/3) loam, brown (10YR 4/3) moist; strong medium granular and very fine subangular blocky structure; hard, friable; common wormcasts and holes; many films and threads of calcium carbonate; few fine fragments of snail shells; calcium carbonate equivalent about 50 percent; violently effervescent; moderately alkaline; gradual smooth boundary.

Bk2--53 to 152 cm (21 to 60 in)); very pale brown (10YR 7/4) loam, light yellowish brown (10YR 6/4) moist; strong very fine and fine granular structure; slightly hard, very friable; few wormcasts and holes; many films and threads of calcium carbonate; few fine fragments of snail shells; calcium carbonate equivalent about 65 percent; violently effervescent; moderately alkaline; diffuse smooth boundary. (Combined thickness of the Bk horizon is 104 to 180 cm [41 to 71 in])

Bk3--152 to 183 cm (60 to 72 in); very pale brown (10YR 7/4) loam, light yellowish brown (10YR 6/4) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable; many films and threads of calcium carbonate; few fine fragments of snail shells; calcium carbonate equivalent about 65 percent; violently effervescent; moderately alkaline.

TYPE LOCATION: Guadalupe County, Texas; west of McQueeney on Texas Highway 76, 3.7 miles northwest on Farm Road 725 to Grove Lane; 0.8 mile east on Grove Lane; and 300 ft south into field.
USGS topographic quadrangle: New Braunfels, TX;
Latitude: 29 degrees, 38 minutes, 24 seconds N;
Longitude: 98 degrees, 51 minutes, 48 seconds W; NAD1927
Datum: WGS84

RANGE IN CHARACTERISTICS:
Solum thickness: 100 to 177 cm (40 to 70 in)
Identifiable secondary carbonates: Fine fragments of snail shells are in all horizons. Films and threads of calcium carbonate are evident in all horizons and increase with depth.
Clay content: silicate clay content ranges from 18 to 35 percent and carbonate clay from 2 to 10 percent.
Coarse fragments: amount-0 to 15 percent by volume, kind-siliceous and limestone, size-gravel
Other features: Weakly cemented limestone occurs below 100 cm (40 in) in some pedons

Particle-size control section (weighted average):
Calcium carbonate equivalent: 40 to 70 percent by weight
Clay content: silicate clay content ranges from 18 to 35 percent and carbonate clay from 2 to 10 percent.
Coarse fragments: amount-0 to 15 percent by volume, kind-siliceous and limestone, size-gravel

A horizon
Hue: 10YR
Value: 3 to 5, 2 or 3 moist
Chroma: 2 or 3, dry and moist
Texture: Fine sandy loam, loam, clay loam, or silty clay loam
Identifiable secondary carbonate: Amount-0 to 2 percent by volume, kind-concretions
Effervescence: Strongly or violently
Reaction: Slightly alkaline or moderately alkaline

Bk horizon
Hue: 5YR to 10YR
Value: 4 to 7, 3 to 6 moist
Chroma: 2 to 6, dry and moist
Mottles: Amount-0 to 20 percent; colors are brown to yellow
Texture: Loam, sandy clay loam, or clay loam, and their gravelly and very gravelly phases
Coarse fragments: Amount-0 to 15 percent by volume, kind-limestone, location-in lower part of horizon
Identifiable secondary carbonates: amount-5 to 20 percent by volume; kind-concretions, films, threads, and masses
Effervescence: Violently
Reaction: Slightly or moderately alkaline

BCk, CBk, or Ck horizon (where present)
Hue: 2.5YR to 10YR
Value: 5 to 7, 4 to 6 moist
Chroma: 3 to 6, dry and moist
Mottles: Amount-0 to 20 percent; colors are brown to yellow
Texture: Loam, sandy clay loam, or clay loam, and their gravelly and very gravelly phases
Coarse fragments: Amount-0 to 50 percent by volume, kind-limestone
Identifiable secondary carbonates: amount-5 to 20 percent by volume; kind-concretions, films, threads, and masses
Effervescence: Violently
Reaction: Slightly or moderately alkaline

COMPETING SERIES: These include Bolar (TX), Carbengle (TX), Rumley (TX), and Topsey (TX) series in the same family and the similar Lewisville (TX), Nuvalde (TX), Oakalla (TX), Seawillow (TX), and Venus (TX) series.
Bolar soils: have a lithic contact with limestone at depths of 50 to 100 cm (20 to 40 in)
Carbengle soils: have a paralithic contact with sandstone at depths of 50 to 100 cm (20 to 40 in)
Rumley soils: have less finely divided lime and more concretions of calcium carbonate in the upper calcic horizon, and have a more distinct and contrasting calcic horizon.

Topsey soils: have sola less than 100 cm (40 in) thick over shale and marl sediments.
Lewisville, Nuvalde, and Venus soils: have calcium carbonate equivalents less than 40 percent by weight in the particle-size control section.
Oakalla soils: have mollic epipedons more than 50 cm (20 in) thick and have an irregular distribution of organic matter in a vertical section.
Seawillow soils: have ochric epipedons.

GEOGRAPHIC SETTING:
Parent material: loamy alluvial sediments that are high in calcium carbonate.
Landscape: Dissected and undulating plateaus
Landform: Stream terraces and footslopes of valleys and ridges. Some areas adjacent to the stream channel are rarely to occasionally flooded for very brief periods in the spring and fall months
Slope: 0 to 15 percent
Climate: Dry subhumid
Soil moisture: Udic ustic moisture regime.
Precipitation Pattern: The majority of the yearly amount occurs during the fall and spring months. The winter and summer months are normally drier.
Mean annual air temperature: 17 to 21 degrees C (62 to 69 degrees F)
Mean annual precipitation: 711 to 948 mm (28 to 37.3 in)
Elevation: 104.6 to 640 m (343.2 to 2,100 ft)
Frost-free period: 220 to 266 days
Thornthwaite annual P-E Index: 40 to 56

GEOGRAPHICALLY ASSOCIATED SOILS: These include the competing Rumley series, and similar Altoga, Bosque (TX), Karnes (TX), Lewisville (TX), Seguin (TX), and Venus series.
Altoga and Karnes soils: have ochric epipedons. In addition, Altoga soils have fine-silty control sections and are on higher positions. Karnes soils have coarse-loamy control sections and are on similar positions.
Bosque and Seguin soils: are on flood plains and have mollic epipedons more than 50 cm (20 in) thick.
Lewisville and Rumley soils: are on slightly higher positions.
Venus soils: have less than 40 percent calcium carbonate equivalent and are on similar positions.

DRAINAGE AND PERMEABILITY:
Drainage class: Well.
Permeability class: Moderate.
Runoff: negligible on slopes less than 1 percent, low on 1 to 5 percent slopes, and medium on 5 to 15 percent slopes.

USE AND VEGETATION: Mostly cropped to cotton, grain sorghums, and oats. Native vegetation is mainly big bluestem, little bluestem, switchgrass, and indiangrass, with scattered hackberry and pecan trees.

DISTRIBUTION AND EXTENT: Central and Northern Texas; Southwest Plateaus and Plains Range and Cotton Region, LRR-I: MLRA 81B-Edwards Plateau, Central Part; MLRA 81C-Edwards Plateau, Eastern Part; and MLRA 82A-Texas Central Basin. Southwestern Prairies Cotton and Forage Region, LRR-J: MLRA 86B-Texas Blackland Prairie, Northern Part; MLRA 85-Grand Prairie; and MLRA 87A-Texas Claypan Area, Southern Part. The series is of large extent with over 200,000 acres.

SOIL SURVEY REGIONAL OFFICE (SSRO) RESPONSIBLE: Temple, Texas

SERIES ESTABLISHED: Guadalupe County, Texas; 1973.

REMARKS: These soils were formerly included with the Venus series. Classification was changed 11/89 from Typic Calciustolls to Udic Calciustolls. Since the later establish ment of the Remley series, this series may need to be changed back to Typic Calciustolls.

Diagnostic horizons and features recognized in this pedon are:
Mollic epipedon: 0 to 30 cm (0 to 12 in) (Ap and A horizons)
Calcic horizon: 30 to 183 cm (12 to 72 in) (Bk1, Bk2, Bk3 horizons)

ADDITIONAL DATA: None

Taxonomic Version: Keys to Soil Taxonomy, Twelfth Edition, 2014.

National Cooperative Soil Survey
U.S.A.

WORKSHEET 7.0

ATTACHMENT A – TOPOGRAPHIC QUADRANGLE MAP

ATTACHMENT B – SITE MAP

ATTACHMENT I – ¼ WATER WELL MAP

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

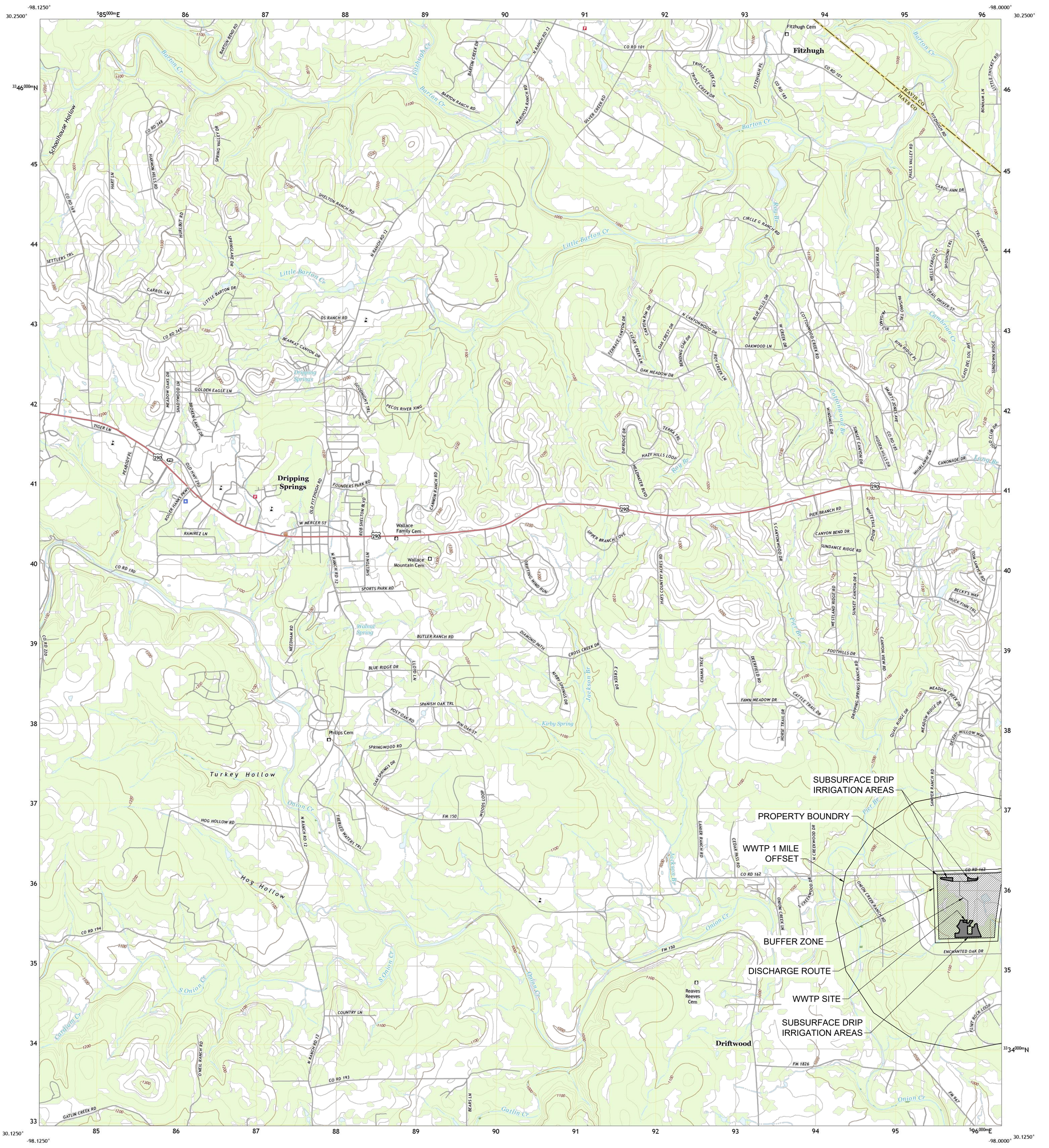
ATTACHMENT A
TOPOGRAPHIC QUADRANGLE MAP

USGS
science for a changing world

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

The National Map
US Topo

DRIPPING SPRINGS QUADRANGLE
TEXAS
7.5-MINUTE SERIES



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

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, September 2016 - November 2016
Roads..... U.S. Census Bureau, 2015 - 2019
Names.....GNIS, 1979 - 2022
Hydrography.....National Hydrography Dataset, 2002 - 2018
Contours.....National Elevation Dataset, 2019
Boundaries.....Multiple sources; see metadata file 2019 - 2021

Wetlands.....FWS National Wetlands Inventory Not Available

MN
GN
3°54'
69 MILS
0°28'
8 MILS
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
NU
Grid Zone Designation
14R

SCALE 1:24 000
1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

ADJOINING QUADRANGLES
1 Hammotts Crossing
2 Shinglo Hills
3 Boo Cavo
4 Honly
5 Signal Hill
6 Rough Hollow
7 Driftwood
8 Mountain City

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

DRIPPING SPRINGS, TX
2022

MSN. 7643016939

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

The National Map US Topo

SIGNAL HILL QUADRANGLE
TEXAS
7.5-MINUTE SERIES

-98.0000° 30.2500° -97.8750° 30.1250°

NU PU

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R

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Wetlands.....FWS National Wetlands Inventory Not Available

MN
GN
3°50'
68 MILS
0°32'
9 MILS
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
NU PU
Grid Zone Designation
14R

SCALE 1:24 000

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

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

TEXAS
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

ADJOINING QUADRANGLES
1 Shingle Hills
2 Boo Cavo
3 Austin West
4 Dripping Springs
5 Oak Hill
6 Driftwood
7 Mountain City
8 Buda

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

NSN 7643016398275

SIGNAL HILL, TX
2022

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT B
SITE MAP

DARDEN HILL RD

PROPOSED DRIP FIELD, TYP

PROPERTY BOUNDARY

1903'

1189'

1033'

673'

WWTP SITE

PROPOSED DRIP FIELD, TYP

N

0 150' 300' 600'

SCALE: 1" = 300'

SITE PLAN EXHIBIT

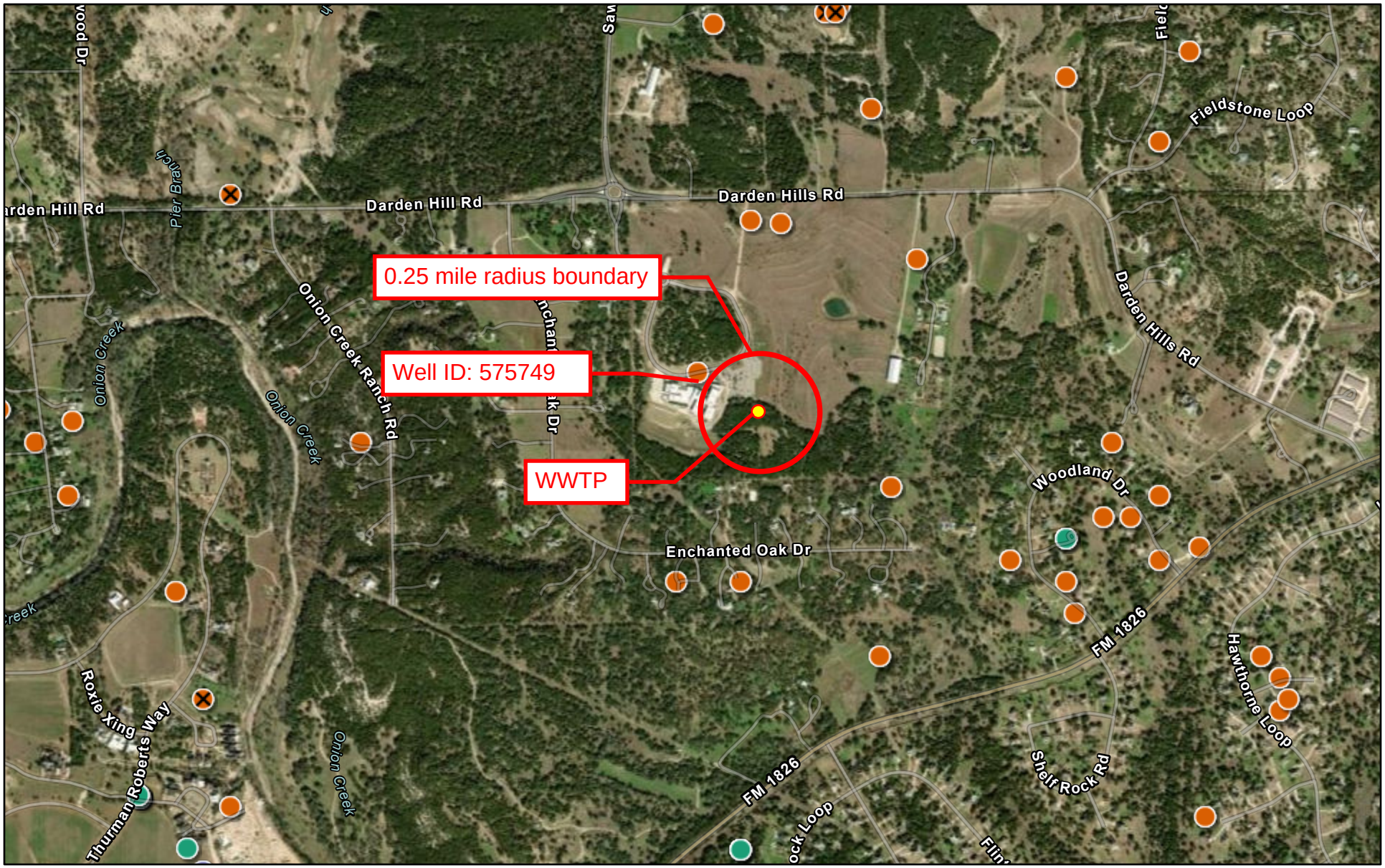
BURGESS & NIPLE INC.

235 LEDGE STONE DRIVE
AUSTIN, TEXAS 78737
PHONE: (512) 432-1000
PELS FIRM REGISTRATION NO. 10834

DRIPPING SPRINGS HIGH SCHOOL No. 2
WASTEWATER TREATMENT PLANT

ATTACHMENT I
¼ WATER WELL MAP

Dripping Springs High School No. 2 WWTP Wells



Texas Water Development Board

January 23, 2025

- Plugging Reports
- Well Reports
- BRACS Database
- TWDB Groundwater
- Proposed WWTP Site

0 0.15 0.3 0.6 mi
0 0.23 0.45 0.9 km
1:18,056

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap

TEXAS WATER DEVELOPMENT BOARD