Administrative Package Cover Page

This file contains the following documents:

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

Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

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

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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 DOMESTIC WASTEWATER/STORMWATER

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

Allied Development LLC (CN606223972) proposes to operate Madelynn Meadows WWTP (N/A), a Membrane Bioreactor plant.. The facility will be located at 0.30 miles NE of the intersection of FM 2933 and CR 331, in McKinney, Collin County, Texas 75071. new permit to discharge at a daily average flow of 175,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N) and Escherichia coli. Domestic will be treated by a Membrane Bioreactor plant and the treatment units will include a fine screen, anoxic basin, aerobic basin, membrane basin, sludge basin, sludge press, and UV disinfection..

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

AGUAS RESIDUALES DOMESTICAS **/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.

Allied Development LLC (CN606223972) propone operar Madelynn Meadows WWTP N/A, una planta de biorreactor de membrana. La instalación estará ubicada en 0.30 millas al noroeste de la intersección de FM 2933 y CR 331, en McKinney, Condado de Collin, Texas 75071. Esta solicitud es para un nuevo permiso para descargar a un flujo promedio diario de 175,000 galones por día de aguas residuales domésticas tratadas.. *<<Para las solicitudes de TLAP incluya la siguiente oración, de lo contrario, elimine:>>* Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan demanda bioquímica carbonosa de oxígeno (CBOD5) de cinco días, sólidos suspendidos totales (SST), nitrógeno amoniacal (NH3-N) y Escherichia coli . Aguas residuales domésticas . estará tratado por una planta de biorreactor de membrana y las unidades de tratamiento incluirán un tamiz fino, un estanque anóxico, un estanque aeróbico, un estanque de membrana, un estanque de lodos, una prensa de lodos y una desinfección UV. .

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PROPOSED PERMIT NO. WQ0016711001

APPLICATION. Allied Development LLC, 16430 North Scottsdale Road, Suite 210, Scottsdale, Arizona 85254, has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0016711001 (EPA I.D. No. TX0147338) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 175,000 gallons per day. The domestic wastewater treatment facility will be located approximately 0.30 mile northeast of the intersection of County Road 331 and Farm-to-Market Road 2933, near the city of McKinney, in Collin County, Texas 75071. The discharge route will be from the plant site via a pipe to an unnamed tributary of East Fork Trinity River; thence to East Fork Trinity River; thence to Lake Lavon. TCEQ received this application on January 23, 2025. The permit application will be available for viewing and copying at Roy & Helen Hall Memorial Library, 101 East Hunt Street, McKinney, in Collin County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-96.581944,33.230555&level=18

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

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

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public

interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

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

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

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

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

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

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

Further information may also be obtained from Allied Development LLC at the address stated above or by calling Mr. Jerry Shepherd, P.E., Southwest Engineers Inc, at 830-672-7546.

Issuance Date: February 27, 2025

Comisión de Calidad Ambiental del Estado de Texas

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

PERMISO PROPUESTO NO. WQ0016711001

SOLICITUD. Allied Developments LLC, 16430 North Scottsdale Road, Suite 210, Scottsdale Arizona, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para el propuesto Permiso No. WQ0016711001 (EPA I.D. No. TX0147320) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de 175,000 galones por día. La planta está ubicada 0.30 milla al noreste de la intersección de County Road 331 y Farm-to-Market Road 2933, cerca de la ciudad de McKinney, en el condado de Collin, Texas 75071. La ruta de descarga es del sitio de la planta a Desde una tubería hasta un afluente sin nombre del río East Fork Trinity, de allí al río East Fork Trinity, de allí al lago Lavon. La TCEQ recibió esta solicitud 23 de enero de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en Biblioteca conmemorativa Roy & Helen Hall, 101 East Hunt Street, McKinney, en el condado de Collin, Texasantes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-96.581944,33.230555&level=18

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

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

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos

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

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

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

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

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía http://www14.tceq.texas.gov/epic/eComment/ o por escrito dirigidos a la

Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Allied Development LLC a la dirección indicada arriba o llamando a Jerry Shepherd al 830-672-7546.

Fecha de emission: 27 de febrero de 2025

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 23, 2025

Re: Confirmation of Submission of the New Private Domestic Wastewater Individual Permit Application

Dear Applicant:

This is an acknowledgement that you have successfully completed Private Domestic Wastewater Individual Permit Application.

ER Account Number: ER110094
Application Reference Number: 741861
Authorization Number: WQ0016711001
Site Name: Madelynn Meadows
Regulated Entity: RN112123575 - MADELYNN MEADOWS WWTP
Customer(s): CN606223972 - Allied Development LLC

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

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

Sincerely,
Applications Review and Processing Team
Water Quality Division

Texas Commission on Environmental Quality

New Domestic or Industrial Individual Permit

Site Information (Regulated Entity)

What is the name of the site to be authorized?	Madelynn Meadows
Does the site have a physical address?	No
Because there is no physical address, describe how to locate this site:	About 0.30 miles northeast of the intersection of CR 2933 and CR 331 in Collin County
City	McKinney
State	TX
ZIP	75071
County	COLLIN
Latitude (N) (##.######)	33.230431
Longitude (W) (-###.######)	-96.581975
Primary SIC Code	4952
Secondary SIC Code	
Primary NAICS Code	221320
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	
What is the name of the Regulated Entity (RE)?	Madelynn Meadows WWTP
Does the RE site have a physical address?	No
Because there is no physical address, describe how to locate this site:	About 0.30 miles northeast of the intersection of CR 2933 and CR 331 in Collin County
City	McKinney
State	TX
ZIP	75071
County	COLLIN
Latitude (N) (##.######)	33.230431
Longitude (W) (-###.######)	-96.581975
Facility NAICS Code	
What is the primary business of this entity?	Wastewater Treatment

ALLIED -Customer (Applicant) Information (Owner)

How is this applicant associated with this site?	Owner
What is the applicant's Customer Number (CN)?	CN606223972
Type of Customer	Corporation

Full legal name of the applicant:	
Legal Name	ALLIED DEVELOPMENT LLC
Texas SOS Filing Number	804216046
Federal Tax ID	
State Franchise Tax ID	32080838041
State Sales Tax ID	
Local Tax ID	
DUNS Number	
Number of Employees	
Independently Owned and Operated?	No
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes
Responsible Authority Contact	
Organization Name	ALLIED DEVELOPMENT LLC
Prefix	MR
First	Joe
Middle	
Last	Deaser
Suffix	
Credentials	
Title	Director
Responsible Authority Mailing Address	
Enter new address or copy one from list:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	16430 N SCOTTSDALE RD STE 210
Routing (such as Mail Code, Dept., or Attn:)	
City	SCOTTSDALE
State	AZ
ZIP	85254
Phone (###-###-####)	6029329590
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	josephd@allieddev.com

Billing Contact

Responsible contact for receiving billing statements:	
Select the permittee that is responsible for payment of the annual fee.	CN606223972, ALLIED DEVELOPMENT LLC

Organization Name	ALLIED DEVELOPMENT LLC
Prefix	MR
First	Joe
Middle	
Last	Deaser
Suffix	
Credentials	
Title	
Enter new address or copy one from list:	CN606223972, ALLIED DEVELOPMENT LLC

Mailing Address

Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	16430 N SCOTTSDALE RD STE 210
Routing (such as Mail Code, Dept., or Attn:)	
City	SCOTTSDALE
State	AZ
ZIP	85254
Phone (###-###-####)	6029329590
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	josephd@allieddev.com

Application Contact

Person TCEQ should contact for questions about this application:

Same as another contact?	
Organization Name	Southwest Engineers Inc
Prefix	MR
First	Jerry
Middle	
Last	Shepherd
Suffix	
Credentials	PE
Title	Director of Public Infrastructure
Enter new address or copy one from list:	

Mailing Address

Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	307 SAINT LAWRENCE ST
Routing (such as Mail Code, Dept., or Attn:)	

City	GONZALES
State	TX
ZIP	78629
Phone (###-###-####)	8306727546
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	jerry.shepherd@swengineers.com

Technical Contact

Person TCEQ should contact for questions about this application:

Same as another contact?	Billing Contact
Organization Name	ALLIED DEVELOPMENT LLC
Prefix	MR
First	Joe
Middle	
Last	Deaser
Suffix	
Credentials	
Title	Director
Enter new address or copy one from list:	CN606223972, ALLIED DEVELOPMENT LLC

Mailing Address

Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	16430 N SCOTTSDALE RD STE 210
Routing (such as Mail Code, Dept., or Attn:)	
City	SCOTTSDALE
State	AZ
ZIP	85254
Phone (###-###-####)	6029329590
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	josephd@allieddev.com

DMR Contact

Person responsible for submitting Discharge Monitoring Report Forms:

Same as another contact?	CN606223972, ALLIED

	DEVELOPMENT LLC
Organization Name	ALLIED DEVELOPMENT LLC
Prefix	MR
First	Joe
Middle	
Last	Deaser
Suffix	
Credentials	
Title	Director
Enter new address or copy one from list:	
Mailing Address:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	16430 N SCOTTSDALE RD STE 210
Routing (such as Mail Code, Dept., or Attn:)	
City	SCOTTSDALE
State	AZ
ZIP	85254
Phone (###-###-####)	6029329590
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	josephd@allieddev.com

Section 1# Permit Contact

Permit Contact#: 1

Person TCEQ should contact throughout the permit term.

1) Same as another contact?	CN606223972, ALLIED DEVELOPMENT LLC
2) Organization Name	ALLIED DEVELOPMENT LLC
3) Prefix	MR
4) First	Joe
5) Middle	
6) Last	Deaser
7) Suffix	
8) Credentials	
9) Title	Director
Mailing Address	
10) Enter new address or copy one from list	Application Contact
11) Address Type	Domestic

11.1) Mailing Address (include Suite or Bldg. here, if applicable)	16430 N SCOTTSDALE RD STE 210
11.2) Routing (such as Mail Code, Dept., or Attn:)	
11.3) City	SCOTTSDALE
11.4) State	AZ
11.5) ZIP	85254
12) Phone (###-###-####)	6029329590
13) Extension	
14) Alternate Phone (###-###-####)	
15) Fax (###-###-####)	
16) E-mail	josephd@allieddev.com

Section 2# Permit Contact

Permit Contact#: 2

Person TCEQ should contact throughout the permit term.

1) Same as another contact?	Application Contact
2) Organization Name	Southwest Engineers Inc
3) Prefix	MR
4) First	Jerry
5) Middle	
6) Last	Shepherd
7) Suffix	
8) Credentials	PE
9) Title	Director of Public Infrastructure

Mailing Address

10) Enter new address or copy one from list	Application Contact
11) Address Type	Domestic
11.1) Mailing Address (include Suite or Bldg. here, if applicable)	307 SAINT LAWRENCE ST
11.2) Routing (such as Mail Code, Dept., or Attn:)	
11.3) City	GONZALES
11.4) State	TX
11.5) ZIP	78629
12) Phone (###-###-####)	8306727546
13) Extension	
14) Alternate Phone (###-###-####)	
15) Fax (###-###-####)	
16) E-mail	jerry.shepherd@swengineers.com

Public Notice Information

Individual Publishing the Notices	
1) Prefix	MR
2) First and Last Name	Jerry Shepherd
3) Credential	PE
4) Title	Director of Public Infrastructure
5) Organization Name	Southwest Engineers Inc
6) Mailing Address	307 SAINT LAWRENCE ST
7) Address Line 2	
8) City	GONZALES
9) State	TX
10) Zip Code	78629
11) Phone (###-###-####)	8306727546
12) Extension	
13) Fax (###-###-####)	
14) Email	jerry.shepherd@swengineers.com
Contact person to be listed in the Notices	
15) Prefix	MR
16) First and Last Name	Jerry Shepherd
17) Credential	PE
18) Title	Director of Public Infrastructure
19) Organization Name	Southwest Engineers Inc
20) Phone (###-###-####)	8306727546
21) Fax (###-###-####)	
22) Email	jerry.shepherd@swengineers.com
Bilingual Notice Requirements	
23) Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?	Yes
23.1) Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?	Yes
23.2) Do the students at these schools attend a bilingual education program at another location?	No
23.3) Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC 89.1205(g)?	No
23.4) Which language is required by the bilingual program?	Spanish

Section 1# Public Viewing Information

County#: 1

1) County	COLLIN

2) Public building name	Roy and Helen Hall Memorial Library
3) Location within the building	
4) Physical Address of Building	101 E Hunt St
5) City	McKinney
6) Contact Name	
7) Phone (###-###-####)	9725477323
8) Extension	
9) Is the location open to the public?	Yes

Owner Information

Owner of Treatment Facility	
1) Prefix	
2) First and Last Name	
3) Organization Name	Allied Development LLC
4) Mailing Address	16430 N Scottsdale Rd Ste 210
5) City	Scottsdale
6) State	AR
7) Zip Code	85254
8) Phone (###-###-####)	6029329590
9) Extension	
10) Email	joseph@allieddev.com
11) What is ownership of the treatment facility?	Private
Owner of Land (where treatment facility is or will be)	
12) Prefix	
13) First and Last Name	
14) Organization Name	Allied Development LLC
15) Mailing Address	16430 Scottsdale Rd Ste 210
16) City	Scottsdale
17) State	AR
18) Zip Code	85254
19) Phone (###-###-####)	6029329590
20) Extension	
21) Email	joseph@allieddev.com
22) Is the landowner the same person as the facility owner or co-applicant?	Yes

Admin General Information

1) Is the facility located on or does the treated effluent cross American Indian Land?	No

2) What is the authorization type that you are seeking?	Private Domestic Wastewater
2.1) Is the facility previously authorized under a Water Quality individual permit?	No
2.2) What is the proposed total flow in MGD discharged at the facility?	.175
2.3) Select the applicable fee	>=0.10 MGD but < 0.25 MGD - $850
3) What is your facility operational status?	Inactive
4) What is the classification for your authorization?	TPDES
4.1) City nearest the outfall(s):	McKinney
4.2) County where the outfalls are located:	COLLIN
4.3) Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?	No
4.4) Is the daily average discharge at your facility of 5 MGD or more?	No
5) Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?	No

Plain Language

1) Plain Language

[File Properties]

File Name	LANG_Plain Language Summary.docx
Hash	DF1568231E650E4E4C2505DE91F80A1A594CE7A09EA0FE771106AAB3CF9BDA4C
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

Supplemental Permit Information Form

1) Supplemental Permit Information Form (SPIF)

[File Properties]

File Name	SPIF_USGS SPIF.pdf
Hash	8707901E8507B8677682A893E842A1F497D3AA7F0A8C271A3319A7DCC4F06023
MIME-Type	application/pdf

[File Properties]

File Name	SPIF_SPIF.docx
Hash	B05C4DF3E70C232E6BBCF7EEDB30DFA204868C52FEF090D57BB504E68429E9FE
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

Domestic Attachments

1) Have you clearly outlined and labeled the required information on	Yes

the original full size USGS Topographic Map?

1.1) I certify that I have clearly outlined and labeled the required information on the Topographic map and attached here.

[File Properties]

File Name	MAP_USGS AD.pdf
Hash	EE4D731C9F159C4A8A9EA6BDD4F606ECFDDEB2B8E0435FB1E4BB1A87C7454A0B
MIME-Type	application/pdf

2) Public Involvement Plan attachment (TCEQ Form 20960)

[File Properties]

File Name	PIP_PIP.pdf
Hash	3A842563DEF25CAEFB4BD1307DBE8283AEFCFEC3B243D67B5DD474C645FE28C2
MIME-Type	application/pdf

3) Administrative Report 1.1

[File Properties]

File Name	ARPT_Admin 1.1.pdf
Hash	09A2CB41A2C20948DE48D68220E672694136A362BC562A05B329F59F760FD65A
MIME-Type	application/pdf

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

4.7) Technical Attachment

[File Properties]

File Name	TECH_Tech for STEERS.pdf
Hash	C81219F487FE43E205C782F28C79375EE6C69F071D63F5F5462E8DFA98901090
MIME-Type	application/pdf

5) Affected Landowners Map

[File Properties]

File Name	LANDMP_AFFECTED LAN.pdf
Hash	923FDDA3D85F8C457628337715E7805B23EA05F1C6F830679C8E94B25F129490

MIME-Type	application/pdf

6) Landowners Cross Reference List

[File Properties]

File Name	LANDCRL_Landowner List.xlsx
Hash	9C82CB10447509CEF256006AE24C54AE6A5D96C6839AB00D9C62F4EBE9FC70E2
MIME-Type	application/vnd.openxmlformats-officedocument.spreadsheetml.sheet

7) Landowner Avery Template

[File Properties]

File Name	LANDAT_Landowner label template.docx
Hash	D0D0A748C5FE6BB0EA11820D68F7085B0070B50B20D28CEBEFF070A43524A65C
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

8) Buffer Zone Map

[File Properties]

File Name	BUFF_ZM_BUFFER ZONE .pdf
Hash	973C60E73410AA9D0D8AE873C753605000BB8698A782FD85776BB001B42E5A90
MIME-Type	application/pdf

9) Flow Diagram

[File Properties]

File Name	FLDIA_Flow Diagram Phase 1.pdf
Hash	23C6C0D7BE9CE6DC7345150D482EE5B124FFAAE5770FCF28B59EF7BB7367F444
MIME-Type	application/pdf

10) Site Drawing

[File Properties]

File Name	SITEDR_SITE DRAWING.pdf
Hash	72C576EFF6678127730A3057FA54A4E4B7F3BF8E43833CB94A79D2C94524FA1C
MIME-Type	application/pdf

11) Original Photographs

[File Properties]

File Name	ORIGPH_Photos Combined.pdf
Hash	E3489E9471ADD2DC05CADFE20662FBC87CA55DB48EC9D27BA2AB7312788ABF48
MIME-Type	application/pdf

[File Properties]

File Name	ORIGPH_PHOTO MAP.pdf

Hash	6500D306EDA77D6183340A5B8041BC9942E6D37214410F55E3577A96D8328662
MIME-Type	application/pdf

12) Design Calculations

[File Properties]

File Name	DES_CAL_DESIGN FEATURES.docx
Hash	C6B55C236063E14D24986E79BADFEBC38F19D52BAB643ED1E49900EBF250A98E
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

[File Properties]

File Name	DES_CAL_Design Calculations.pdf
Hash	EC0067C2229A8C692C6B6805FB2F2D0E5B56ECAED95B7E867F7284C8B3B52251
MIME-Type	application/pdf

13) Solids Management Plan

[File Properties]

File Name	SMP_Sewage Sludge Solids Management Plan.docx
Hash	B149F78205C52E9C68F2889E1D02ADA443640E17F2EE925AB851B8A2F7E3EC09
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

14) Water Balance

[File Properties]

File Name	WB_Water Balance is Not Applicable to this permit.docx
Hash	2DADC6C8415326E50EC139DF4BD2AA7A7DB9F6AC4A6715D5A0FA23C788ED247E
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

15) Other Attachments

[File Properties]

File Name	OTHER_CCN Comment.pdf
Hash	6CBBD539318162906ACC88D600D55AA29AEF12D2210BE38E63203814E85935DE
MIME-Type	application/pdf

[File Properties]

File Name	OTHER_Treatment units.xlsx
Hash	6E3C66B24C075E62C5BE36CF7B3F4C248BE0B0BB05C3ECBA8742CD690C274C5A
MIME-Type	application/vnd.openxmlformats-officedocument.spreadsheetml.sheet

[File Properties]	
File Name	OTHER_wind rose.pdf
Hash	F8D89BB74C66B263C0F5315FD4F5DAAABE300C923A2B36B0D20AB000CEC98779
MIME-Type	application/pdf

[File Properties]	
File Name	OTHER_CCN MAP.pdf
Hash	428AD04EEDED9DC2D51125DC794B1D26A6D27D3C9C42953AE454F74D8FBA265B
MIME-Type	application/pdf

[File Properties]	
File Name	OTHER_FEMA MAP.pdf
Hash	533798FF32D2DB6668AD11EC84704C2DCF1837C495C185C2183C4138CBCC9EE3
MIME-Type	application/pdf

[File Properties]	
File Name	OTHER_NEARBY WWTP .pdf
Hash	107E46DAB6C5DB61A7A530B6B86400FF902042CB101914C32693E8099866350B
MIME-Type	application/pdf

[File Properties]	
File Name	OTHER_2025-01-02_Signature Authorization for Southwest Engineers.pdf
Hash	450A6D1F5DCEC627E8438416D6DBAD45E0C14786FC533DF80B608AC93ABADE6F
MIME-Type	application/pdf

Certification

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

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

1. I am Jerry Shepherd, the owner of the STEERS account ER110094.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and

enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.

7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
8. I am knowingly and intentionally signing New Domestic or Industrial Individual Permit.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: Jerry Shepherd OWNER

Customer Number:	CN606223972
Legal Name:	ALLIED DEVELOPMENT LLC
Account Number:	ER110094
Signature IP Address:	38.68.39.9
Signature Date:	2025-01-23
Signature Hash:	70CCBF80D8BF53FC89B71EF26391978FE751A6B920C121CB4AE1A12FF1C5EE5F
Form Hash Code at time of Signature:	5B0609A876F6086956370A8CE0ADA4828D4FAE2D2EB3D7EA77D18EE6660C3D34

Fee Payment

Transaction by:	The application fee payment transaction was made by ER110094/Jerry Shepherd
Paid by:	The application fee was paid by JERRY SHEPHERD
Fee Amount:	$800.00
Paid Date:	The application fee was paid on 2025-01-23
Transaction/Voucher number:	The transaction number is 582EA000646160 and the voucher number is 743520

Submission

Reference Number:	The application reference number is 741861
Submitted by:	The application was submitted by ER110094/ Jerry Shepherd
Submitted Timestamp:	The application was submitted on 2025-01-23 at 13:40:00 CST
Submitted From:	The application was submitted from IP address 38.68.39.9
Confirmation Number:	The confirmation number is 621542
Steers Version:	The STEERS version is 6.85

Additional Information

Application Creator: This account was created by Jerry Shepherd

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

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

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

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

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

☐ USB Drive ☐ Four sets of labels

D. Provide the source of the landowners' names and mailing addresses: Collin County CAD

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

☐ Yes ☒ No

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

N/A

Section 2. Original Photographs (Instructions Page 38)

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

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

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

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

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

Section 3. Buffer Zone Map (Instructions Page 38)

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

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

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

☒ Ownership

☐ Restrictive easement

☐ Nuisance odor control

☐ Variance

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

☒ Yes ☐ No

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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 DOMESTIC WASTEWATER/STORMWATER

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

Allied Development LLC (CN606223972) proposes to operate Madelynn Meadows WWTP (N/A), a Membrane Bioreactor plant.. The facility will be located at 0.30 miles NE of the intersection of FM 2933 and CR 331, in McKinney, Collin County, Texas 75071. new permit to discharge at a daily average flow of 175,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N) and Escherichia coli. Domestic will be treated by a Membrane Bioreactor plant and the treatment units will include a fine screen, anoxic basin, aerobic basin, membrane basin, sludge basin, sludge press, and UV disinfection..

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

AGUAS RESIDUALES DOMESTICAS **/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.

Allied Development LLC (CN606223972) propone operar Madelynn Meadows WWTP N/A, una planta de biorreactor de membrana. La instalación estará ubicada en 0.30 millas al noroeste de la intersección de FM 2933 y CR 331, en McKinney, Condado de Collin, Texas 75071. Esta solicitud es para un nuevo permiso para descargar a un flujo promedio diario de 175,000 galones por día de aguas residuales domésticas tratadas.. *<<Para las solicitudes de TLAP incluya la siguiente oración, de lo contrario, elimine:>>* Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan demanda bioquímica carbonosa de oxígeno (CBOD5) de cinco días, sólidos suspendidos totales (SST), nitrógeno amoniacal (NH3-N) y Escherichia coli . Aguas residuales domésticas . estará tratado por una planta de biorreactor de membrana y las unidades de tratamiento incluirán un tamiz fino, un estanque anóxico, un estanque aeróbico, un estanque de membrana, un estanque de lodos, una prensa de lodos y una desinfección UV. .

INSTRUCTIONS

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

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

Example 1: Industrial Wastewater TPDES Application (ENGLISH)

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

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

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

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

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

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

Example 2: Domestic Wastewater TPDES Renewal 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.

The City of Texas (CN000000000) operates the City of Texas wastewater treatment plant (RN000000000), an activated sludge process plant operated in the complete mix mode. The facility is located at 123 Texas Street, near the City of More Texas, Texas County, Texas 71234.

This application is for a renewal to discharge at an annual average flow of 1,200,000 gallons per day of treated domestic wastewater via Outfalls 001 and 002.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, a grit chamber, aeration basins, final clarifiers, sludge digesters, a belt filter press, chlorine contact chambers and a dechlorination chamber.

Example 3: Domestic Wastewater TPDES 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.

The City of Texas (CN000000000) proposes to operate the City of Texas wastewater treatment plant (RN000000000), an activated sludge process plant operated in the extended aeration mode. The facility will be located at 123 Texas Street, in the City of More Texas, Texas County, Texas 71234.

This application is for a new application to discharge at a daily average flow of 200,000 gallons per day of treated domestic wastewater.

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

Example 4: Domestic Wastewater TLAP Renewal 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.

The City of Texas (CN000000000) operates the City of Texas wastewater treatment plant (RN000000000), an activated sludge process plant operated in the complete mix mode. The facility is located at 123 Texas Street, near the City of More Texas, Texas County, Texas 71234.

This application is for a renewal to dispose a daily average flow not to exceed 76,500 gallons per day of treated domestic wastewater via public access subsurface drip irrigation system with a minimum area of 32 acres. This permit will not authorize a discharge of pollutants into water in the state.

Land application of domestic wastewater from the facility are expected to contain five-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, an equalization basin, an aeration basin, a final clarifier, an aerobic sludge digester, tertiary filters, and a chlorine contact chamber. In addition, the facility includes a temporary storage that equals to at least three days of the daily average flow.

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.

Allied Development LLC (CN606223972) proposes to operate Madelynn Meadows WWTP (N/A), a Membrane Bioreactor plant.. The facility will be located at 0.30 miles NE of the intersection of FM 2933 and CR 331, in McKinney, Collin County, Texas 75071. new permit to discharge at a daily average flow of 175,000 gallons per day of treated domestic wastewater.
Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N) and Escherichia coli.
Domestic will be treated by a Membrane Bioreactor plant and the treatment units will include a fine screen, anoxic basin, aerobic basin, membrane basin, sludge basin, sludge press, and UV disinfection .

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.

McKinney

(City)

Collin County

(County)

302.01

(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

95 %

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

$53,008

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

Percent of Minority Population 46.6%
Black alone, percent 12.3%
American Indian and Alaska Native alone, percent 0.5%

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

7.8%

(e) Languages commonly spoken in area by percentage

Speak only English 75.5%
Spanish 9.3%
Other Indo-European languages 7.3%

(f) Community and/or Stakeholder Groups

N/A

(g) Historic public interest or involvement

N/A

Section 6. Planned Public Outreach Activities

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

☐ Yes ☒ No

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

☐ Yes ☒ No

If Yes, please describe.

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

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

☒ Yes ☐ No

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

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

☑ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

☐ TCEQ Regional Office ☐ TCEQ Central Office

☑ Public Place (specify) Roy & Helen Hall Memorial Library

Section 7. Voluntary Submittal

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

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

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

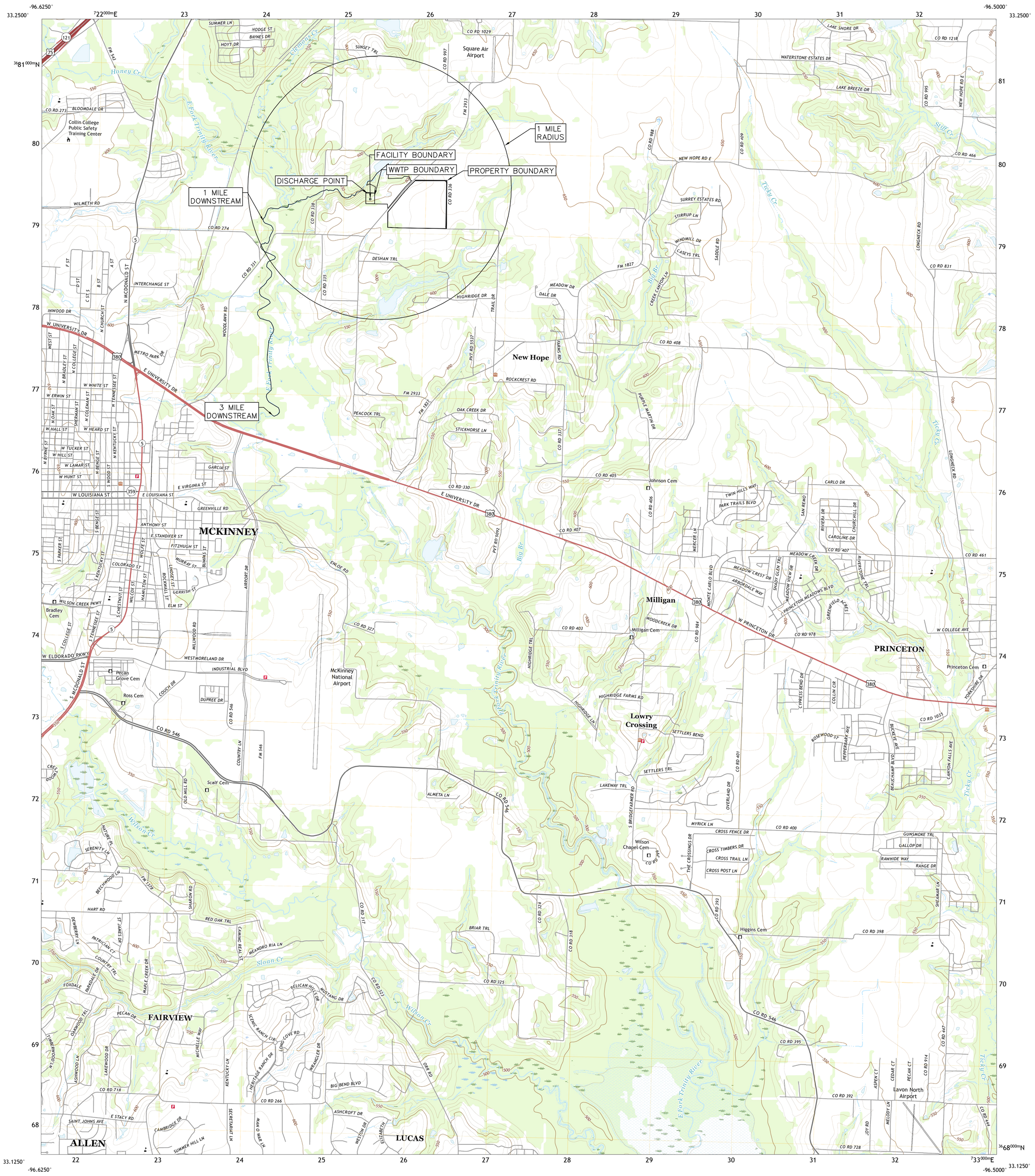
☐ Other (specify)

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

USGS science for a changing world

The National Map US Topo

MCKINNEY EAST QUADRANGLE
TEXAS - COLLIN COUNTY
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 14S

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 - 2018
Names.....GNIS, 1979 - 2021
Hydrography.....National Hydrography Dataset, 2002 - 2018
Contours.....National Elevation Dataset, 2005
Boundaries.....Multiple sources; see metadata file 2019 - 2021

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

MN
GN
3°2'
54 MILS
1°20'
24 MILS
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

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

SCALE 1:24 000

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

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

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

TEXAS
QUADRANGLE LOCATION

ADJOINING QUADRANGLES
1 Weston
2 Anna
3 Blue Ridge
4 McKinney West
5 Culleoka
6 Plano
7 Wylie
8 Lavon

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

MCKINNEY EAST, TX
2022

2000' 1000' 0 2000'

SCALE: 1" = 2000'

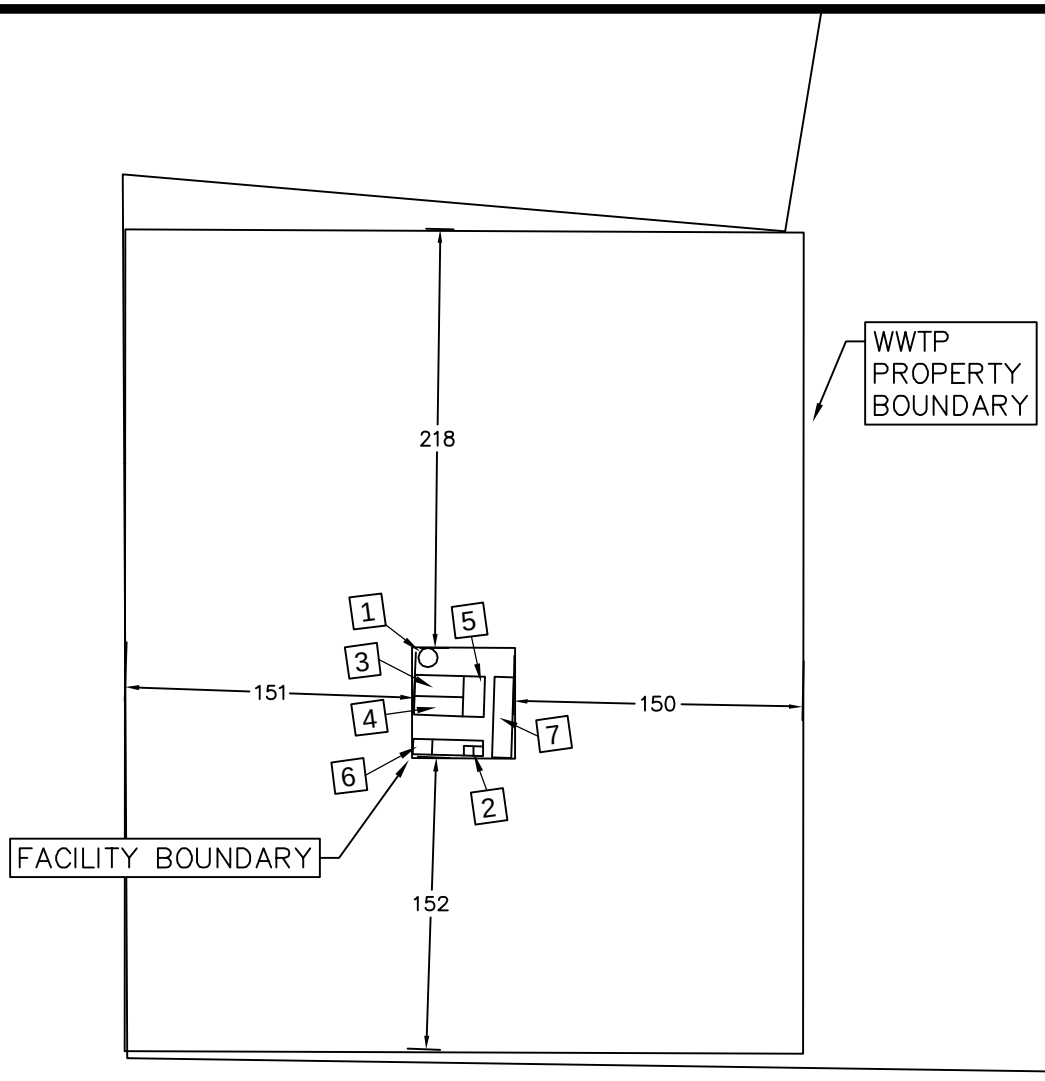
USGS TOPO MAP
JANUARY 2025

MADELYNN MEADOWS WWTP

Southwest Engineers
TBPE NO. F-1909
www.swengineers.com

HEADQUARTERS
307 Saint Lawrence Street, Gonzales TX 78629
P: 830.672.7546 F:830.672.2034

CENTRAL TEXAS
205 Cimarron Park Loop, Ste. B, Buda TX 78610
P: 512.312.4336



ID	TREATMENT UNIT
1	LIFT STATION
2	FINE SCREEN
3	ANOXIC BASIN
4	AEROBIC BASIN
5	MEMBRANE BASIN
6	SLUDGE PRESS
7	BLOWER SHED

100' 50' 0 100'

SCALE: 1" = 100'

N

BUFFER ZONE MAP

JANUARY 2025

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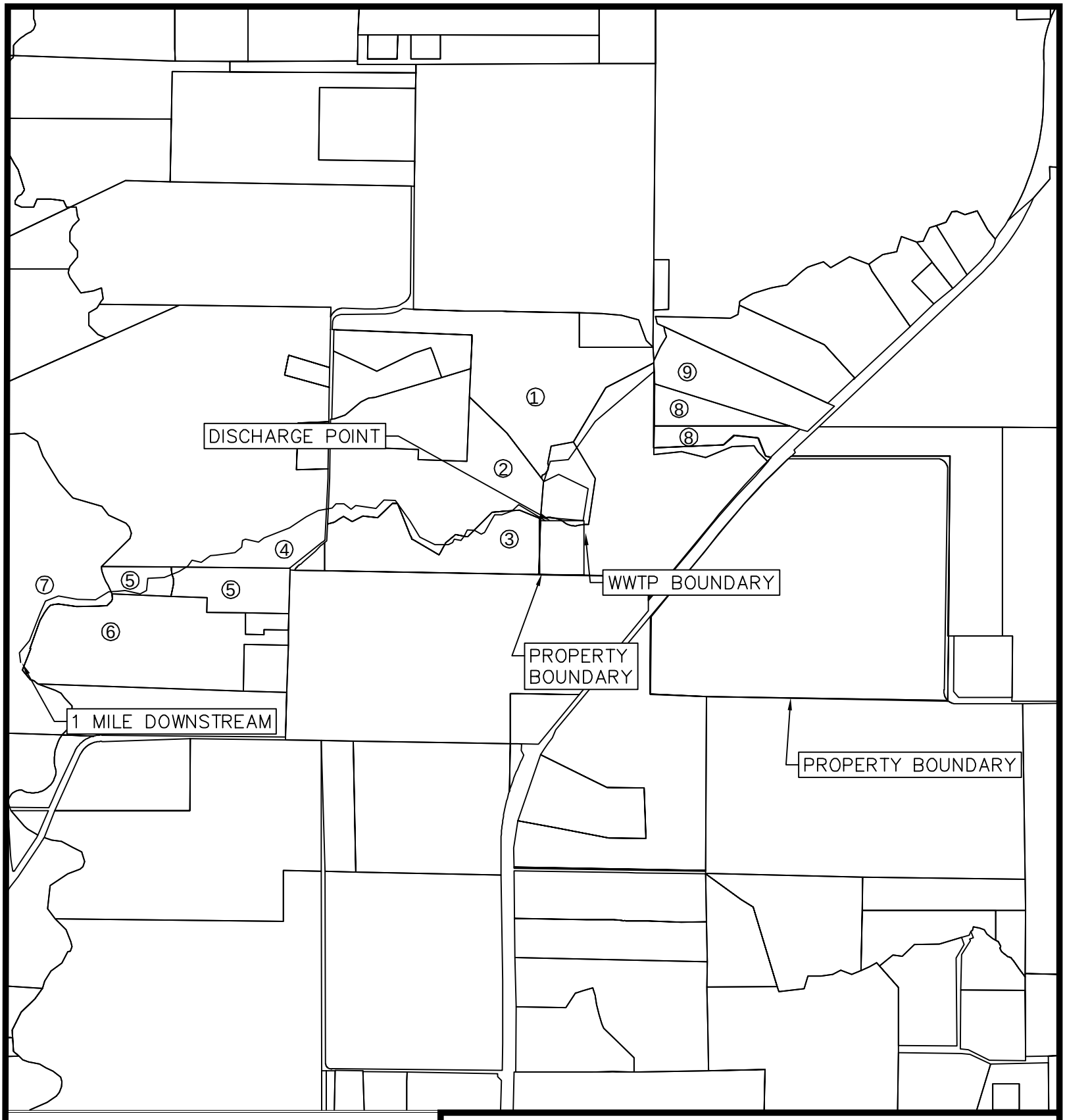

1000' 500' 0 1000'

SCALE: 1" = 1000'

N

AFFECTED LANDOWNERS

JANUARY 2025

MADELYNN MEADOWS WWTP

Southwest Engineers

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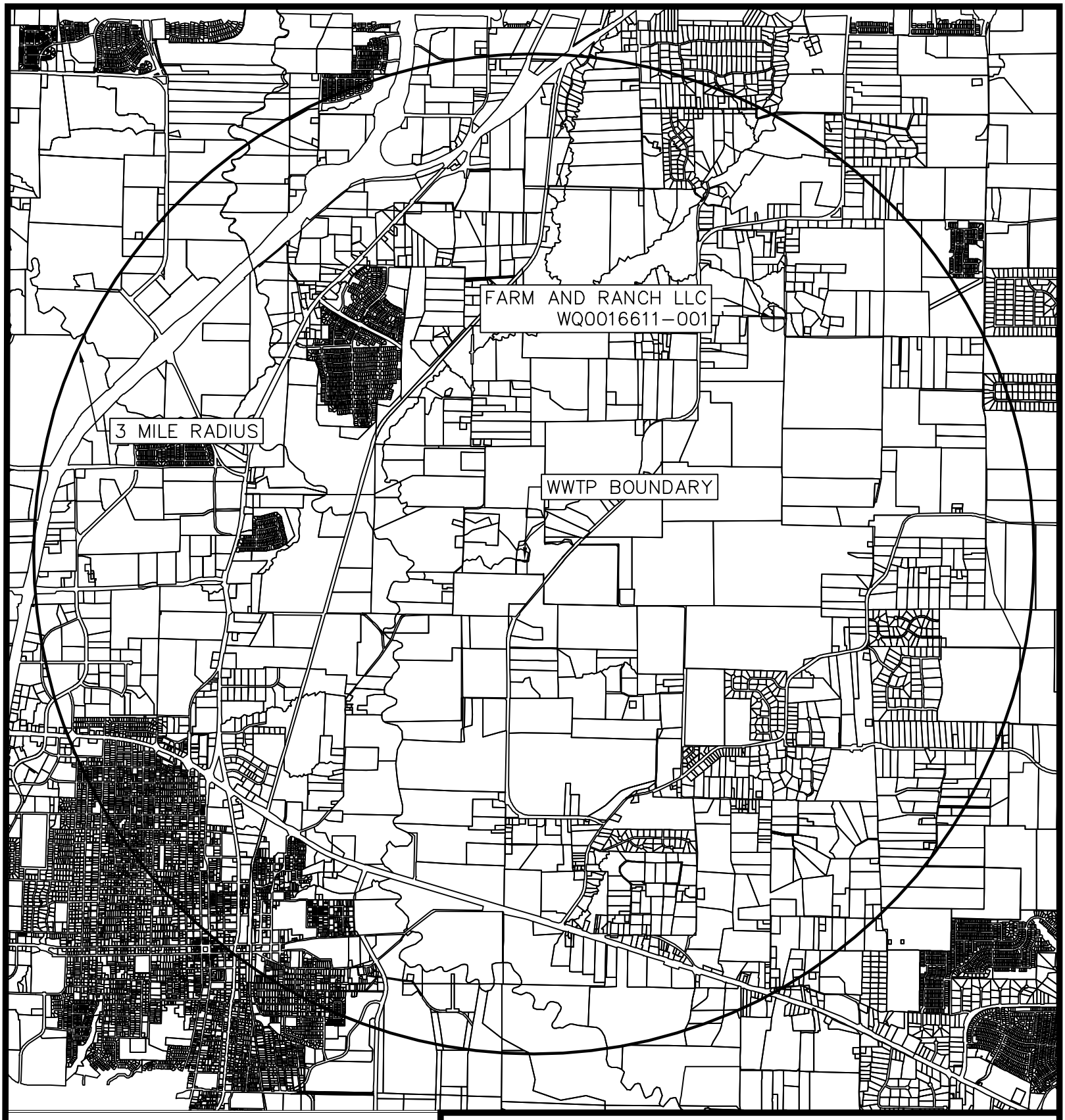

4000' 2000' 0 4000'

SCALE: 1" = 4000'

N

NEARBY WWTP

JANUARY 2025

MADELYNN MEADOWS WWTP

Southwest Engineers

TBPE NO. F-1909
www.swengineers.com

HEADQUARTERS
307 Saint Lawrence Street, Gonzales TX 78629
P: 830.672.7546 F:830.672.2034

CENTRAL TEXAS
205 Cimarron Park Loop, Ste. B, Buda TX 78610
P: 512.312.4336

	Name	Address	City, State Zip
1	Joe and Mary Borchard	PO Box 354	McKinney, TX 75070
2	2118 CR 338 LLC	2218 CR 338	McKinney, TX 75071
3	Gary Gibson	1984 CR 338	McKinney, TX 75071
4	Margaret Roddey Oneal	2235 CR 338	McKinney, TX 75071
5	Miranda Mario and Patricia Aguilar	6612 Lake Meadow Ln.	Sachse, TX 75048
6	Chad and Amy Teague	PO Box 1713	McKinney, TX 75070
7	Lacore Agriculture LLC	901 Sam Rayburn Hwy	Melissa, TX 75454
8	Stacy and Keith Andrew	PO Box 388	McKinney, TX 75070
9			

Joe and Mary Borchard
PO Box 354
McKinney, TX 75070

2118 CR 338 LLC
2218 CR 338
McKinney, TX 75071

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PO Box 1713
McKinney, TX 75070

Lacore Agriculture LLC
901 Sam Rayburn Hwy
Melissa, TX 75454

Stacy and Keith Andrew
PO Box 388
McKinney, TX 75070


NEW TREATMENT UNIT LOCATION


DOWN STREAM


UPSTREAM

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:

Application type: ____Renewal ____Major Amendment ____Minor Amendment ____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

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

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

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

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

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

The following applies to all applications:

1. Permittee: Allied Development

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

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

   0.30 miles NE of the intersection of FM 2933 and CR 331 in McKinney, Texas

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

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

First and Last Name: Joe Deaser

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

Title: Director

Mailing Address: 16430 N Scottsdale Rd. Ste. 210

City, State, Zip Code: Scottsdale, Arizona 85254

Phone No.: 602-932-9590 Ext.: N/A Fax No.: N/A

E-mail Address: josephd@allieddev.com

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

N/A

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

From a pipe to an unnamed tributary of East Fork Trinity River, thence to East Fork Trinity River, thence to Lake Lavon in Segment No.0821 in the Trinity River Basin.

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

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

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

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

☐ Disturbance of vegetation or wetlands

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

The plant will be on approximately 3 acres of land. There will be some excavation up to 17' deep. There are no known caves or karst features.

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

The property is undeveloped. It is currently range land with light brush/tree cover

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

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

N/A

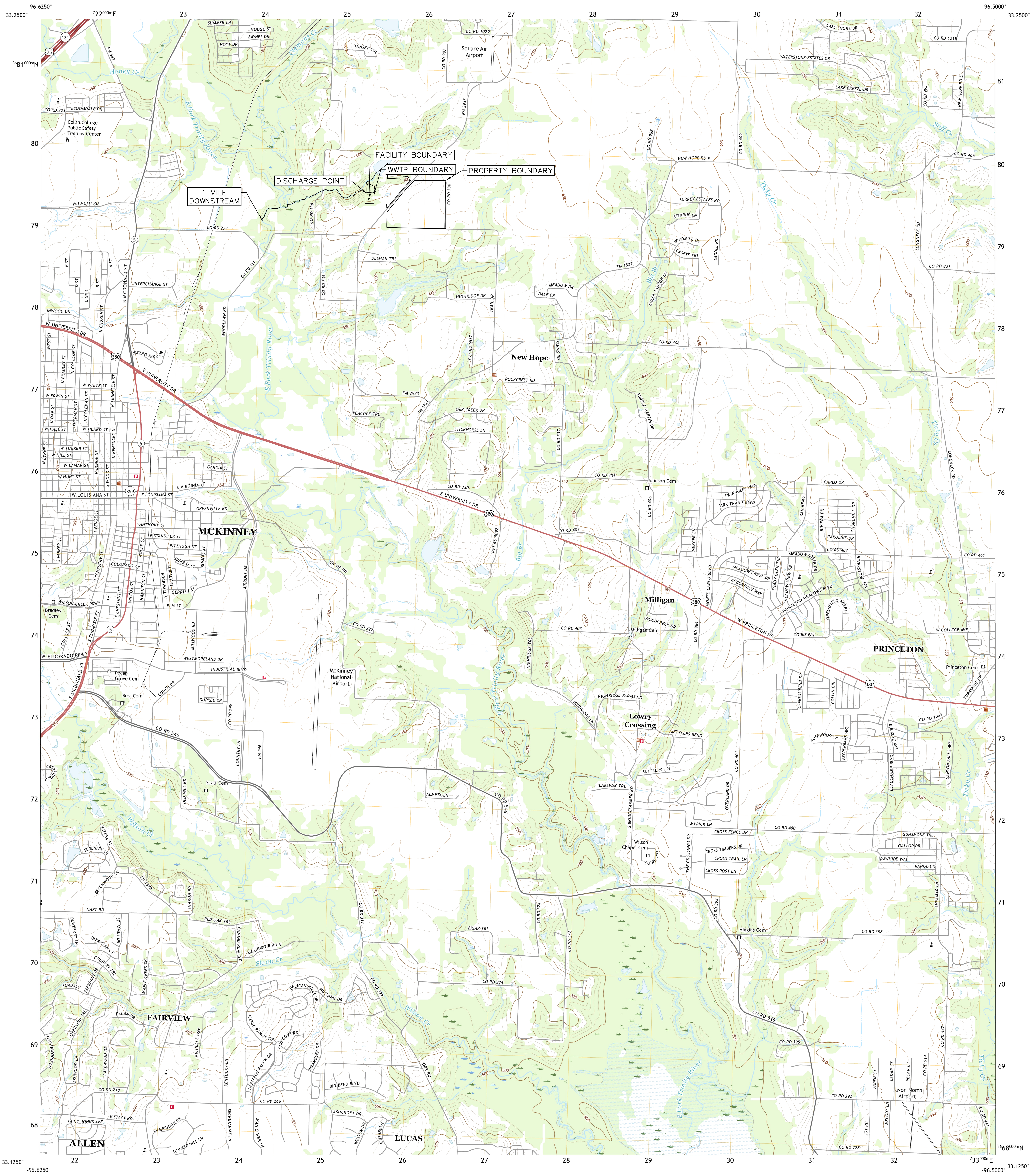
4. Provide a brief history of the property, and name of the architect/builder, if known.

The property is undeveloped. It is currently range land and has been range land.

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

The National Map US Topo

MCKINNEY EAST QUADRANGLE
TEXAS - COLLIN COUNTY
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 14S

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 - 2018
Names........GNIS, 1979 - 2021
Hydrography........National Hydrography Dataset, 2002 - 2018
Contours........National Elevation Dataset, 2005
Boundaries........Multiple sources; see metadata file 2019 - 2021
Wetlands........FWS National Wetlands Inventory Not Available

MN GN 3°2´ 54 MILS 1°20´ 24 MILS
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

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

SCALE 1:24 000
KILOMETERS 1 0.5 0 1 2
METERS 1000 500 0 1000 2000
MILES 1 0.5 0 1
FEET 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

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 Weston
2 Anna
3 Blue Ridge
4 McKinney West
5 Culleoka
6 Plano
7 Wylie
8 Lavon
ADJOINING QUADRANGLES

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

MCKINNEY EAST, TX
2022

2000' 1000' 0 2000'
SCALE: 1" = 2000'

N

USGS TOPO MAP SPIF
JANUARY 2025

MADELYNN MEADOWS WWTP

Southwest Engineers
TBPE NO. F-1909
www.swengineers.com

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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 42)

A. Existing/Interim I Phase

Design Flow (MGD): 0.175

2-Hr Peak Flow (MGD): 0.7

Estimated construction start date: January 2027

Estimated waste disposal start date: June 2027

B. Interim II Phase

Design Flow (MGD): N/A

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

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

C. Final Phase

Design Flow (MGD): N/A

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

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

D. Current Operating Phase

Provide the startup date of the facility: November 2027

Section 2. Treatment Process (Instructions Page 42)

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**.

The proposed wastewater treatment facility will consist of a Membrane Bioreactor (MBR) Wastewater Treatment System, which combines conventional biological activated sludge processes with membrane filtration. An onsite lift station will pump the raw wastewater to a fine screen at the head of the plant, water flow will then go to an anoxic basin where denitrification occurs, as well as some BOD removal. Alum is also added here for phosphorus removal. The wastewater then flows into an aerobic basin where diffusers introduce air into the treatment process to aid in biological treatment, as well as nitrification. From there the wastewater flows into the membrane basin (also aerated), where the membranes provide a physical barrier allowing only clean water to pass through. The permeate from the membranes is then pumped thru a UV light and then to the ultimate discharge point. Sludge that accumulates in the membrane basin is occasionally wasted into a screw type sludge press as needed for regular hauling to a permitted landfill facility. Extracted wastewater from the sludge press is returned to the anoxic basin. Phase 1 will be a 175,000 gpd plant designed at a peak factor of 4.

B. Treatment Units

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

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
See Treatment Units		

C. Process Flow Diagram

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

Attachment: Flow Diagram

Section 3. Site Information and Drawing (Instructions Page 43)

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

- Latitude: 33.231725
- Longitude: -96.580686

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

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

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

- The boundaries of the treatment facility;
- The boundaries of the area served by the treatment facility;

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

Attachment: Site Drawing
Provide the name **and** a description of the area served by the treatment facility.

Madelynn Meadows WWTP will service about 500 single family lots.

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
M**adelynn Meadows WWTP**	Allied Development	**Privately Owned**	1500
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

N/A

Section 5. Closure Plans (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

N/A

Section 6. Permit Specific Requirements (Instructions Page 44)

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

A. Summary transmittal

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

☐ Yes ☐ No

If yes, provide the date(s) of approval for each phase: N/A

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

N/A

B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

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

N/A

C. Other actions required by the current permit

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

☐ Yes ☒ No

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

N/A

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

☐ Yes ☒ No

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

2. Grit and grease processing

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

N/A

3. Grit disposal

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

☐ Yes ☐ No

If No, contact the TCEQ Municipal Solid Waste team at 512-239-2335. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

N/A

4. Grease and decanted liquid disposal

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

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

N/A

E. Stormwater management

1. Applicability

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

2. MSGP coverage

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

☐ Yes ☐ No

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

TXR05 N/A or TXRNE N/A

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

☐ Yes ☐ No

3. *Conditional exclusion*

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

☐ Yes ☐ No

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

N/A

4. *Existing coverage in individual permit*

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

☐ Yes ☐ No

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

N/A

5. *Zero stormwater discharge*

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

☐ Yes ☐ No

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

N/A

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

6. *Request for coverage in individual permit*

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

☐ Yes ☐ No

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

N/A

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

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
N/A

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

1. Acceptance of sludge from other WWTPs

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

☐ Yes ☒ No

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

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

N/A

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

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

N/A

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

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

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

☐ Yes ☒ No

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

N/A

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 49)

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 49)

Facility Operator Name: TBD

Facility Operator's License Classification and Level: TBD

Facility Operator's License Number: TBD

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 50)

A. WWTP's Sewage Sludge or 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 Sewage Sludge or 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: N/A

C. Sewage Sludge or Biosolids Management

Provide information on the *intended* sewage sludge or biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize all sewage sludge or 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
Disposal in Landfill	Off-site Third-Party Handler or Preparer	Not Applicable		N/A: Disposal in Landfill	N/A: Disposal in Landfill
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): N/A

D. Disposal site

Disposal site name: TBD

TCEQ permit or registration number: TBD

County where disposal site is located: TBD

E. Transportation method

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

Name of the hauler: TBD

Hauler registration number: TBD

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 52)

A. Beneficial use authorization

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

☐ Yes ☒ No

If yes, are you requesting to continue this authorization to land apply biosolids 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 Biosolids	☐ Yes	☐ No
Sludge Surface Disposal or Sludge Monofill	☐ Yes	☐ No
Temporary storage in sludge lagoons	☐ Yes	☐ No

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

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

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

A. Location information

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

- Original General Highway (County) Map:

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

  Attachment: N/A
- Federal Emergency Management Map:

  Attachment: N/A
- Site map:

  Attachment: N/A

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

☐ Overlap a designated 100-year frequency flood plain

☐ Soils with flooding classification

☐ Overlap an unstable area

☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

Attachment: N/A

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

N/A

B. Temporary storage information

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

Nitrate Nitrogen, mg/kg: N/A

Total Kjeldahl Nitrogen, mg/kg: N/A

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

Phosphorus, mg/kg: N/A

Potassium, mg/kg: N/A

pH, standard units: N/A

Ammonia Nitrogen mg/kg: N/A

Arsenic: N/A

Cadmium: N/A

Chromium: N/A

Copper: N/A

Lead: N/A

Mercury: N/A

Molybdenum: N/A

Nickel: N/A

Selenium: N/A

Zinc: N/A

Total PCBs: N/A

Provide the following information:

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

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

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

C. Liner information

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

☐ Yes ☐ No

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

N/A

D. Site development plan

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

N/A

Attach the following documents to the application.

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

  Attachment: N/A
- Copy of the closure plan

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

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

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

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

  Attachment: N/A

E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: N/A

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 54)

A. Additional authorizations

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

☐ Yes ☒ No

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

N/A

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

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

☐ Yes ☒ No

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

N/A

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

A. RCRA hazardous wastes

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

☐ Yes ☒ No

B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

☐ Yes ☒ No

C. Details about wastes received

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

Attachment: N/A

Section 14. Laboratory Accreditation (Instructions Page 55)

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: Jerey Shepherd

Title: Project Engineer

Signature: _____

Date: _____

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 56)

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.

The proposed treatment facility will serve a new +500 dwelling unit residential subdivision. Construction is tentatively scheduled to start around January 2027, with the first homes coming online around June 2027 with an anticipated growth rate of 25 homes per month.

B. Regionalization of facilities

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

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

1. Municipally incorporated areas

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

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

☐ Yes ☒ No ☐ Not Applicable

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

If yes, attach correspondence from the city.

Attachment: N/A

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

Attachment: N/A

2. Utility CCN areas

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

☒ Yes ☐ No

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

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

Attachment: CCN Justification

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: Request for Service

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: Request for Service

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

Attachment: N/A

Section 2. Proposed Organic Loading (Instructions Page 58)

Is this facility in operation?

☐ Yes ☒ No

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

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

A. Current organic loading

Facility Design Flow (flow being requested in application): N/A

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

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

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

N/A

B. Proposed organic loading

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

Table 1.1(1) – Design Organic Loading

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

Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 58)

A. Existing/Interim I Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 5

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: 1

Dissolved Oxygen, mg/l: 3

Other: N/A

B. Interim II Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: N/A

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

Other: N/A

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: N/A

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

Other: N/A

D. Disinfection Method

Identify the proposed method of disinfection.

☐ Chlorine: Click to enter text. mg/l after Click to enter text. minutes detention time at peak flow

Dechlorination process: Click to enter text.

☒ Ultraviolet Light: 0.9 seconds contact time at peak flow

☐ Other: Click to enter text.

Section 4. Design Calculations (Instructions Page 58)

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

Attachment: Design Calculations

Section 5. Facility Site (Instructions Page 59)

A. 100-year floodplain

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

☒ Yes ☐ No

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

N/A

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

FEMA 48085C0290J

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

☐ Yes ☒ No

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

☐ Yes ☐ No

If yes, provide the permit number: N/A

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

B. Wind rose

Attach a wind rose: Wind Rose

Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 59)

A. Beneficial use authorization

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

☐ Yes ☒ No

If yes, attach the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)**: N/A

B. Sludge processing authorization

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

☐ Sludge Composting

☐ Marketing and Distribution of sludge

☐ Sludge Surface Disposal or Sludge Monofill

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

Section 7. Sewage Sludge Solids Management Plan (Instructions Page 60)

Attach a solids management plan to the application.

Attachment: Solids Management Plan

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

- Treatment units and processes dimensions and capacities

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 63)

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

☐ Yes ☒ No

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

Owner of the drinking water supply: N/A

Distance and direction to the intake: N/A

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

Attachment: N/A

Section 2. Discharge into Tidally Affected Waters (Instructions Page 63)

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

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

A. Receiving water outfall

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

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

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

N/A

C. Sea grasses

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

☐ Yes ☐ No

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

N/A

Section 3. Classified Segments (Instructions Page 63)

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

☐ Yes ☒ No

If yes, this Worksheet is complete.

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

Section 4. Description of Immediate Receiving Waters (Instructions Page 63)

Name of the immediate receiving waters: East Fork Trinity River

A. Receiving water type

Identify the appropriate description of the receiving waters.

☒ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: N/A

Average depth of the entire water body, in feet: N/A

Average depth of water body within a 500-foot radius of discharge point, in feet: N/A

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: N/A

B. Flow characteristics

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

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

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

☐ Perennial - normally flowing

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

☐ USGS flow records

☐ Historical observation by adjacent landowners

☒ Personal observation

☐ Other, specify: N/A

C. Downstream perennial confluences

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

None

D. Downstream characteristics

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

☐ Yes ☒ No

If yes, discuss how.

N/A

E. Normal dry weather characteristics

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

The immediate receiving body is a roughly 2'to 4' wide, 1' to 3' deep stream with low velocity.

Date and time of observation: January 15, 2025

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☒ No

Section 5. General Characteristics of the Waterbody (Instructions Page 65)

A. Upstream influences

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

☐ Oil field activities
☐ Upstream discharges
☐ Septic tanks
☐ Urban runoff
☐ Agricultural runoff
☐ Other(s), specify: N/A

B. Waterbody uses

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

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Domestic water supply
- ☐ Park activities
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation
- ☐ Industrial water supply
- ☐ Other(s), specify: N/A

C. Waterbody aesthetics

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

- ☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional
- ☐ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored
- ☐ Common Setting: not offensive; developed but uncluttered; water may be colored or turbid
- ☐ Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

Sewage Sludge Solids Management Plan
Madelynn Meadows Wastewater Treatment Plant
Municipal Wastewater Permit Application

The proposed permanent 175,000 gpd wastewater treatment plant will be constructed in one phase. An extended aeration activated sludge process with chemical precipitation of phosphorous is proposed. The plant will include fine screens, anoxic and aerobic reactors with membranes for solids separation, a UV light contact chamber and sludge press.

Solids collected by the membrane filters will be diverted to the sludge press at a rate of 3,175 gpd. This flow will contain 311 pounds (lbs.) of solid sludge. The sludge press will dewater the liquid sludge to a semi-solid state containing approximately twenty four percent (24%) solids resulting in a production of 0.29 cubic yards (0.29 CY)(7.90 cubic feet) of semi-solid sludge produced daily. Supernatant from the sludge press will be returned to the headworks of the plant for treatment.

The thickened sludge from the screw press will drop directly into containers provided by a TCEQ approved waste hauler. They will transfer the boxes to a TCEQ approved landfill for disposal.

The size of container provided will be determined by the TCEQ authorized hauler to meet their schedule and limitations on weight restrictions for hauling.

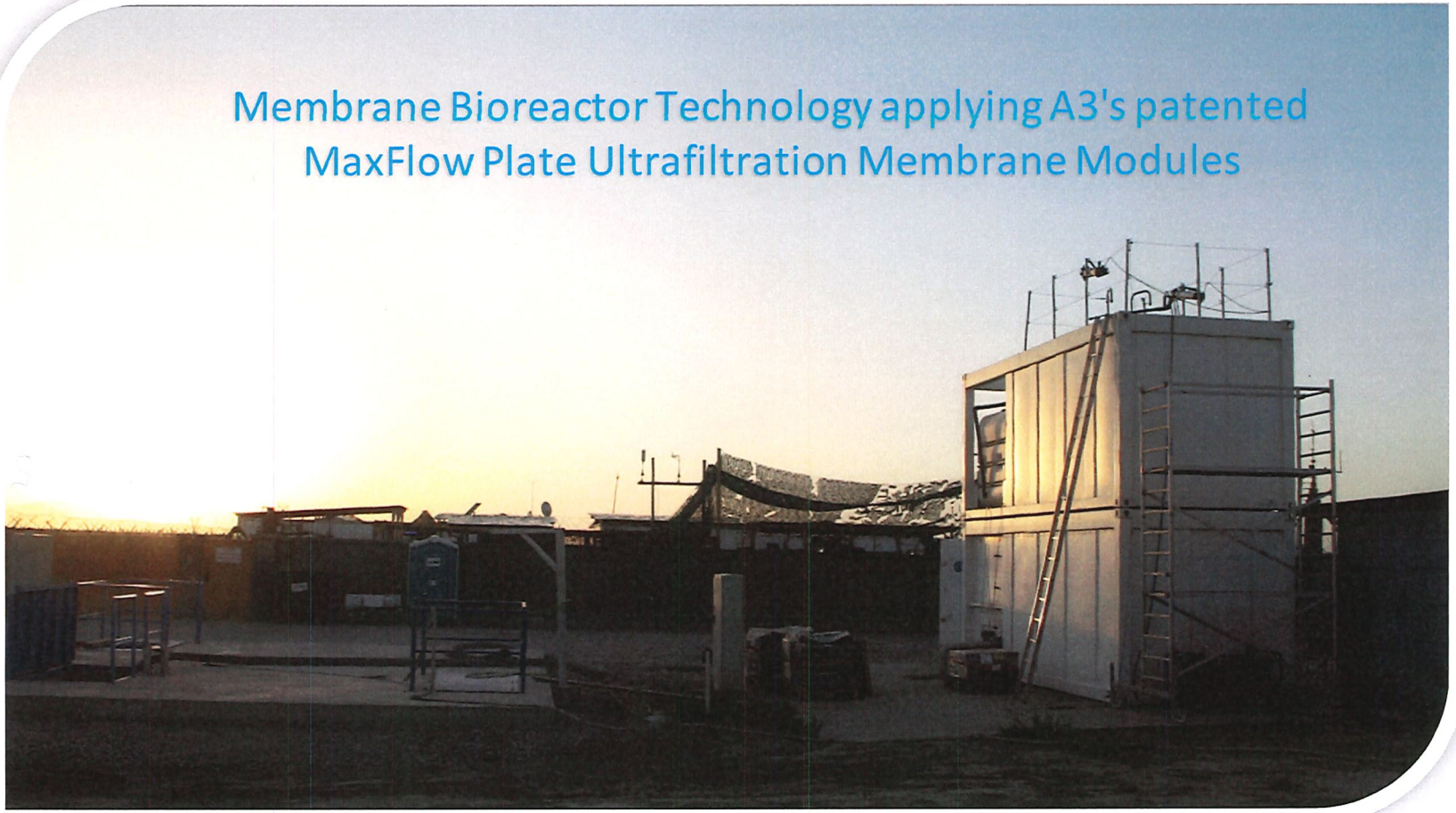
The following chart presents the sludge solids generated by the process as well as the sludge solids and volumes that would need to be removed from the plant.

% Plant Capacity	Flow GPD	Pounds Sludge Solids Removed/Day	Semi-Solid Volume (ft^3)/Day
100%	175,000	311	36
75%	131,250	239	27
50%	87,500	156	18
25%	43,750	78	9

MODERN WASTEWATER SOLUTIONS

Project #M153

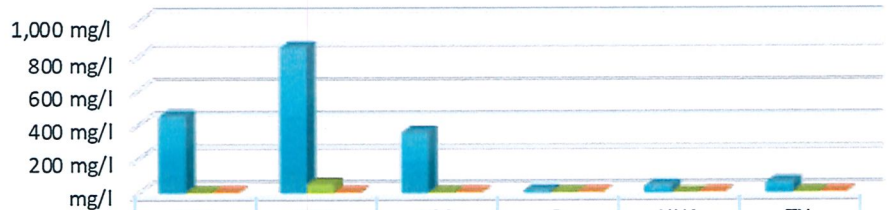
Membrane Bioreactor Technology applying A3's patented MaxFlow Plate Ultrafiltration Membrane Modules



A3-USA, Inc 1674 Fountaintown Road Chinquapin, NC 28521

Process Summary

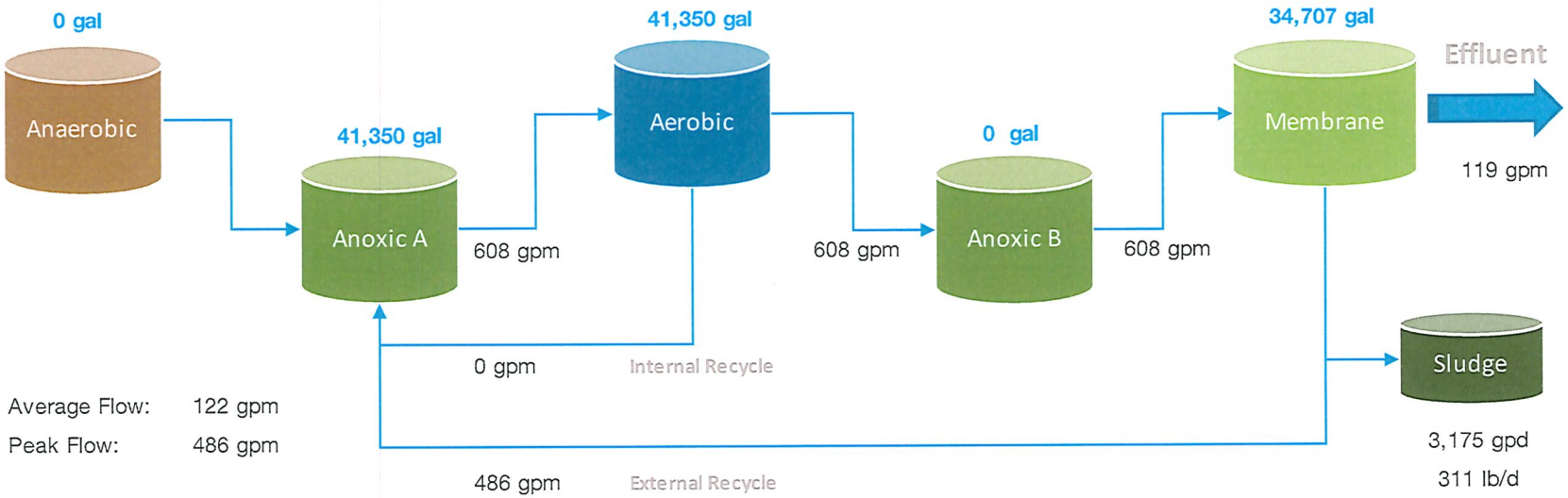
Influent & Effluent Parameters



	BOD	COD	TSS	P	NH4	TN
Influent	450 mg/l	850 mg/l	350 mg/l	10 mg/l	40 mg/l	60 mg/l
Effluent	2.0 mg/l	51.0 mg/l	1.0 mg/l	1.0 mg/l	0.3 mg/l	2.1 mg/l
Removal	99.6%	94.0%	99.7%	90.0%	99.3%	96.5%

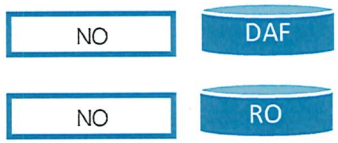
PROCESS PARAMETERS

Sludge Age	35 d
Total Reactor Volume	117,408 gal
Total SOR	1,355 kgO2/d
MLSS in Anoxic / Aerobic Tank	11,559 mg/l
MLSS in Membrane Tank	14,746 mg/l
HRT	16 h
F/M RATIO (BOD)	0.060
F/M RATIO (COD)	0.113
Total Membrane Surface	48,825 sf



Aeration	Flow	Pressure
EQ	0 scfm	0.0 psi
Sludge	0 scfm	0.0 psi
Aerobic	440 scfm	7.5 psi
Membrane	561 scfm	7.5 psi

Applied Options:



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Biological Process Calculation

Influent Charateristics	Symbol	Value	Units
Type of wastewater		municipal	
Temperature	T	20	°C
pH	-	7.0	-
H_2CO_3 alkalinity	Alk_i	250	mg/l as $CaCO_3$
Site pressure / elevation	$p_{a,i}$	14.5	psi
Average daily flow	Q_i	175,000	gpd
Peak daily flow	$Q_{i,\ max,d}$	350,000	gpd
Hourly peak flow	$Q_{i,\ max,p}$	486	gpm
Peak factor	-	4.0	-
Average daily flow	Q_i	662	m^3/d
Max. monthly average daily flow	$Q_{i,\ max,d}$	1,325	m^3/d
Hourly peak flow	$Q_{i,\ max,h}$	110.4	m^3/h
Total BOD	$S_{BOD,i}$	450	mgBOD/l
Total COD	$S_{COD,i}$	850	mgCOD/l
COD/BOD ratio	-	1.89	-
Rapidly biodegradable COD	$S_{s,i}$	213	mgCOD/l
Volitale fatty acids (VFA)	$S_{VFA,i}$	32	mgCOD/l
Fermentable COD	$S_{F,i}$	180	mgCOD/l
Slowly biodegradable COD	$S_{ss,i}$	459	mgCOD/l
Biodegradable COD	$S_{bio,i}$	672	mgCOD/l
Soluble inert COD	$S_{SIN,i}$	51	mgCOD/l
Particulate inert COD	$S_{PIN,i}$	128	mgCOD/l

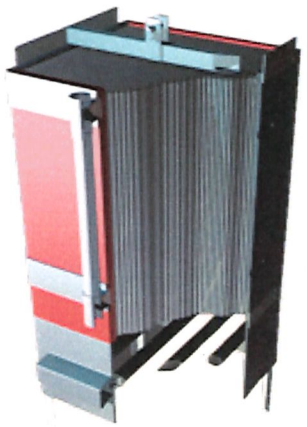
Influent Charateristics	Symbol	Value	Units
NO_3	$N_{NO3,i}$	0.0	mg/l
NH_4	$N_{a,i}$	40.0	mg/l
TKN	$N_{TKN,i}$	60.0	mg/l
TP	P_i	10.0	mg/l
Dissolved Oxygen	$S_{O2,i}$	0.0	mg/l
FSA fraction	$f_{a/TKN,i}$	0.7	-
Fixed (inorganic) suspended solids	$X_{FSS,i}$	47.5	mgISS/l
TSS concentration	$S_{TSS,i}$	350.0	mgTSS/l
Total BOD mass	$FS_{BOD,i}$	298.1	kgBOD/d
Total BOD mass	$FS_{BOD,i}$	650.8	lbsBOD/d
Total COD mass	$FS_{COD,i}$	563.0	kgCOD/d
Total COD mass	$FS_{COD,i}$	1,229.3	lbsCOD/d
Total NH_4 mass	$FS_{a,i}$	26.5	kgNH_4/d
Total TKN mass	$FS_{TKN,i}$	39.7	kgTKN/d
Total P mass	$FS_{P,i}$	6.6	kgP/d

Effluent Characteristics	Symbol	Value	Units
Waste Sludge	FX_t	311	lb/d
Waste Sludge	Q_w	3,175	gpd
Effluent BOD	$S_{BOD,e}$	< 3	mgBOD/l
Effluent COD	$S_{COD,e}$	51	mgCOD/l
Effluent TSS	$S_{TSS,e}$	1.0	mgTSS/l
Effluent P	P_e	1.0	mgP/l
Effluent NH_4	$N_{a,e}$	0.3	mgN/l
Effluent NO_3	$N_{NO3,e}$	0.0	mgN/l
Effluent TN (N_{ne} + N_{te})	$N_{t,e}$	2.1	mgN/l

Bioreactor Characteristics	Symbol	Value	Units
Temperature	T_{bio}	20	°C
Sludge retention time / Sludge age	SRT	35	d
Reactor volume	$V_{P,chosen}$	117,408	gallons
Reactor volume	$V_{P,chosen}$	444	m^3
Reactor volume	$V_{P,calc}$	111,131	gallons
Average MLSS concentration	X_{TSS}	11,850	mgTSS/l
Food to microorganism ratio	$F/M_{BOD,used}$	0.060	kgBOD/kgMLSS
Food to microorganism ratio	$F/M_{COD,used}$	0.113	kgCOD/kgMLSS
Membrane tank MLSS concentration	X_M	14,746	mgTSS/l
Aerobic/Anoxic tank MLSS concentration	X_{Bio}	11,559	mgTSS/l
Number of anaerobic zones	$\#_{AN}$	0	-
Number of anoxic zones	$\#_{AO}$	1	-
Number of aerobic zones	$\#_{AE}$	1	-
External recycle ratio	m	4	-
Internal recycle ratio	a	0	-
DO in m recycle	O_m	0	mgO_2/l
DO in a recycle	O_a	0	mgO_2/l
Recycle ratio to anaerobic tank (PAO)	s	0	-
DO in s recycle	$S_{O2,s}$	0	mgO_2/l
Nitrate on s recycle	$S_{NO3,s}$	0	mg/l
TKN/COD ratio	$f_{TKN/COD}$	0.071	mgTKN/mgCOD
Carbon source addition (Micro C)	B_{MicroC}	0.0	lb/d
Carbon source addition (Micro C)	S_{MicroC}	0.00	gpd
Nominal hydraulic retention time	HRT_n	16.1	h
Actual hydraulic retention time	HRT_a	3.2	h

Biological Oxygen Demand	Symbol	Value	Units
OD for synth & endo respiration (PAO)	FO_{PAO}	0	kgO_2/d
OD for synth & endo respiration (OHO)	FO_{OHO}	369	kgO_2/d
Mass carbonaceous oxygen demand	FO_C	369	kgO_2/d
Carbonaceous oxygen utilization rate	O_c	83%	-
Nitrification oxygen demand	FO_n	116	kgO_2/d
Total oxygen demand	FO_t	485	kgO_2/d
Oxygen recovered by denitrification	FO_d	73	kgO_2/d
Net total oxygen demand (AOR)	FO_{td}	412	kgO_2/d
Oxygen saturation @ operating temp.	c_s	9.2	mg/l
Desired oxygen level	c_x	2.0	mg/l
Transfer coefficient	α	0.40	-
Diffuser water depth	DWD	14	feet
Oxygen transfer efficiency	OTE	2	%
Standard total oxygen demand (SOR)	SOR	1,355	kgO_2/d
Required air flow	Q_{air}	434	scfm
Oxygen requir. per volume & depth	OS	17.9	$gO_2/(Nm_3*m_D)$

Membrane Module Design	Symbol	Value	Units
Permeate on cycle	T_o	8	minute
Permeate off cycle (relaxation)	T_s	2	minute
Effective membrane module surface	$A_{m,eff}$	84.0	m^2
Effective membrane module surface	$A_{m,eff}$	904	ft^2
Total number of membrane modules	N_M	54	-
Total membrane module surface	A_{total}	4,536	m^2
Total membrane module surface	A_{total}	48,825	ft^2
Nominal average daily flux	$Q_{ave,n}$	7.6	lmh
Nominal max. daily flux	$Q_{ave,n,max,mo}$	15.2	lmh
Nominal peak hourly flux	$Q_{peak,n}$	30.4	lmh
Average daily flux (excluding rest cycle)	$Q_{ave,n}$	**3.6**	gfd
Max. Daily flux (ex. rest cycle)	$Q_{ave,n,max,mo}$	**7.2**	gfd
Peak hourly flux (ex. rest cycle)	$Q_{peak,n}$	**14.3**	gfd
Total membrane module displacement vol.	$V_{modules}$	594	ft^3
Total membrane module displacement vol.	$V_{modules}$	4,443	gallons
Aeration modules	A#	18	-
Membrane module aeration requirement	Q_{am}	28.5	acfm
Total membrane modules aeration	$Q_{am,total}$	513	acfm
Membrane diffuser water depth	DWD_m	13.00	feet
Oxygen requirement per volume & depth	OS	13	$gO_2/(Nm_3*m_D)$
Standard oxygen rate, membrane aeration	SOR_m	2,436	lbO_2/d
Standard oxygen rate, membrane aeration	SOR_m	1,116	kgO_2/d



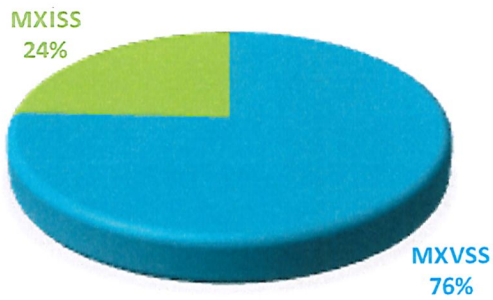
- ✓ Patented, innovative A3's MaxFlow™ membrane filtration modules manufactured in USA.
- ✓ The MaxFlow™ module "open channel design" provides optimal biofilm control, minimizes the quantity of chemical cleaning procedures and avoids module clogging.
- ✓ The compact module design enables dual-stack and triple-stack installations. It allows for a high membrane packing density resulting in a small footprint and high energy efficiency.
- ✓ Most existing conventional treatment plants can be retrofitted with MaxFlow™ membranes due to the

Kinetic Constants	Symbol	Value	Units
Yield coefficient OHO	Y_{OHO}	0.40	mgVSS/mgCOD
Yield coefficient OHO,OBS	$Y_{OHO,obs}$	0.04	mgVSS/mgCOD
Fermentation rate at 20°C	$k_{F,20}$	0.06	m3/gVSSd
Temperature coefficient for $k_{F,T}$	Θ_{kF}	1.029	-
Fermentation rate at T	$k_{F,T}$	0.06	m3/gVSSd
Endogenous respiration rate (decay)	$b_{OHO,20}$	0.24	gVSS/gVSSd
Endogenous respiration rate T	$b_{OHO,T}$	0.24	gVSS/gVSSd
Yield coefficient FSA	Y_A	0.10	mgVSS/mgFSA
Nitri. pH sensitivity coefficient	K_I	1.13	-
Nitri. pH sensitivity coefficient	K_{max}	9.50	-
Nitri. pH sensitivity coefficient	K_{II}	0.30	-
Max. specific growth rate at 20°C	μ_{Am}	0.45	1/d
Max. spec. growth rate - Temp/pH	μ_{AmTpH}	0.38	1/d
Half saturation coefficient	K_n	0.75	mgFSA/l
Half saturation coefficient - Temp	K_{nT}	0.75	mgFSA/l
Endogenous respiration rate (decay)	b_A	0.04	1/d
Temperature coefficient for $k_{F,T}$	θ_n	1.123	-
Endogenous respiration rate T	b_{AT}	0.040	1/d
Temperature sensitivity coefficient	Θ_{nk1}	1.20	-
Temperature sensitivity coefficient	Θ_{nk2}	1.05	-
Temperature sensitivity coefficient	Θ_{nk3}	1.03	-
Denitrification rates at 20°C	k_1	0.70	-
Denitrification rates at 20°C	k_2	0.10	-
Denitrification rates at 20°C	k_3	0.08	-
Denitrification rates	k_{1T}	0.700	-
Denitrification rates	k_{2T}	0.101	-
Denitrification rates	k_{3T}	0.080	-
Yield coefficient PAO	Y_{PAO}	0.45	gAVSS/gCOD
Yield coefficient PAO	$Y_{PAO,obs}$	0.17	gAVSS/gCOD
Endogenous respiration rate (decay)	b_{PAO_20}	0.04	gEVSS/gCOD
Temperature coefficient for $k_{F,T}$	$\Theta_{b,PAO}$	1.029	-
Endogenous respiration rate T	$b_{PAO,T}$	0.04	gEVSS/gVSSd

Stoichiometric Constants	Symbol	Value	Units
COD/BOD ratio	-	1.89	-
Readily biodeg. org. fraction (RBCOD)	$f_{s,COD}$	0.25	g/gTCOD
Non-biodegradable particulate COD	$f_{PNb,COD}$	0.15	g/gTCOD
Non-biodegradable soluble COD	$f_{SNb,COD}$	0.06	g/gTCOD
SVFA fraction of RBCOD	$f_{SVFA,SSi}$	0.15	g/$gCOD_{ss}$
VSS/TSS of activated sludge	f_{VT}	0.76	mgVSS/mgTSS
COD/VSS of activated sludge	f_{cv}	1.48	kgCOD/kgVSS
True synthesis fraction	f_s^0	0.57	-
Endogenous residue fraction	$f_{H/E,OHO}$	0.2	-
ISS content of OHOs	$f_{ISS,OHO}$	0.15	-
Active fraction - VSS	f_{avOHO}	18%	-
Active fraction - TSS	f_{at}	13%	-
Influent FSA fraction	$f_{FSA,i}$	0.67	-
Non-bio. soluble orgN fraction (inerts)	$f_{SNb,N}$	0.03	-
Non-bio. particulate orgN fraction	f_n	0.12	-
Permissible unaer. sludge mass fraction	f_{xm}	0.78	-
Design unaerated sludge mass fraction	f_{xt}	0.35	-
Minimum primary anoxic mass fraction	f_{x1min}	0.03	-
Primary anoxic mass fraction	f_{x1}	0.35	-
Secondary anoxic mass fraction	f_{x2}	0.00	-
Anaerobic mass fraction	f_{AN}	0.00	-
Non-bio. particulate orgP fraction	$f_{P,XE,OHO}$	0.05	mgP/mgVSS
Endogenous residue fraction	$f_{XE,PAO}$	0.25	gEVSS/gAVSS
P fraction in active PAO mass	$f_{P,PAO}$	0.38	gP/gAVSS
VSS/TSS ratio for PAO active mass	$f_{VT,PAO}$	0.46	gVSS/gTSS
Ratio of P release /VFA uptake	$f_{PO4,REL}$	0.5	gP/gCOD
Frac. of fixed inorganic s. solids of PAO	$f_{FSS,PAO}$	1.3	gFSS/gAVSS
P content of TSS	$f_{P,TSS}$	0.041	gP/gTSS
P content of VSS	$f_{P,FSS,i}$	0.02	gP/gVSS
TKN/COD ratio	f_{ns}	0.07	mgTKN/mgCOD
Nitrogen content of active biomass	$f_{N,VSS}$	0.10	gN/gAVSS

Biological Mass Balance	Symbol	Value	Units
Sludge age	SRT	35	d
Mixed liquor suspended solids	X_{TSS}	11,850	mgTSS/l
Readiable biodegradabe COD flux	$FS_{S,i}$	141	kgCOD/d
Daily flux of VFAs	$FS_{VFA,i}$	21	kgCOD/d
Daily flux of fermentable COD	$FS_{F,i}$	120	kgCOD/d
Daily flux of biodegradable COD	$FS_{bio,i}$	445	kgCOD/d
Daily flux of particulate inert COD	$FS_{PIN,i}$	84	kgCOD/d
Daily flux of fixed inorganic sus. solids	$FS_{ISS,i}$	31	kgISS/d
Influent particulate non-bio. COD	$FX_{VSS,i}$	57	kgVSS/d
Mass nitrogen into sludge prod.	FN_{Sludge}	13	kgN/d
Mass of nitrate generated per day	FN_{NO3}	25	kgN/d
VFAs stored by PAOs	$FS_{S,PAO}$	0	kgCOD/d
Remaining biodegradable COD	$FCOD_{b,OHO}$	445	kgCOD/d
Mass nitrifiers	MX_A	37	kgVSS
Active biomass PAO	MX_{PAO}	0	KgAVSS
Endogenous active biomass PAO	$MX_{E,PAO}$	0	kgEVSS
Bio mass	MX_{bio}	666	kgVSS
Active organism mass	MX_{OHO}	666	kgVSS
Endogenous residue mass	$MX_{E,OHO}$	1,120	kgVSS
Non-biodegradable particulate mass	MX_{IV}	1,997	kgVSS
Volatile suspended solids mass	MX_{VSS}	3,783	kgVSS
Inorganic suspended solid mass	MX_{ISS}	1,201	kgISS
Total suspended solids mass	MX_{TSS}	4,984	kgTSS
Mass/Sludge TSS wasted	FX_t	142	KgTSS/d
Mass/Sludge VSS wasted	FX_V	108	kgVSS/d
Effluent COD	$S_{COD,e}$	51	mgCOD/l
COD mass out (effluent and waste)	$FS_{COD,e}$	34	kgCOD/d
Mass/Sludge COD wasted	$FX_{COD,s}$	160	kgCOD/d

Alkalinity	Symbol	Value	Units
Alkalinity Nitrification as CaCO3 (consumed)	Alk_{Nitri}	274	mg/l as $CaCO_3$
Alkalinity Denitrification as CaCO3 (recovered)	$Alk_{Denitri}$	138	mg/l as $CaCO_3$
Alkalinity ef	Alk_e	100	mg/l as $CaCO_3$
Alkalinity inf	Alk_i	250	mg/l as $CaCO_3$
Alkalinity Alum (consumed)	Alk_{Alum}	0.0	mg/l as $CaCO_3$
Alkalinity Total	Alk_{total}	114	mg/l as $CaCO_3$
Alkalinity Added	Alk_{added}	-14	mg/l as $CaCO_3$
Alkalinity Added	$XAlk_{added}$	0	lb/d
Density caustic solution (50%)	-	12.76	lb/gal
Alkalinity recovered	$Alk_{recovered}$	0.4	$lbCaCO_3/lb$
Caustic needed	-	0.0	lb/d
Caustic needed	-	0.0	gpd



$$V_P = \frac{MX_{TSS}}{X_{TSS}}$$

$$FX_t = \frac{MX_{TSS}}{SRT}$$

$$MX_{TSS} = MX_{ISS} + MX_{VSS}$$

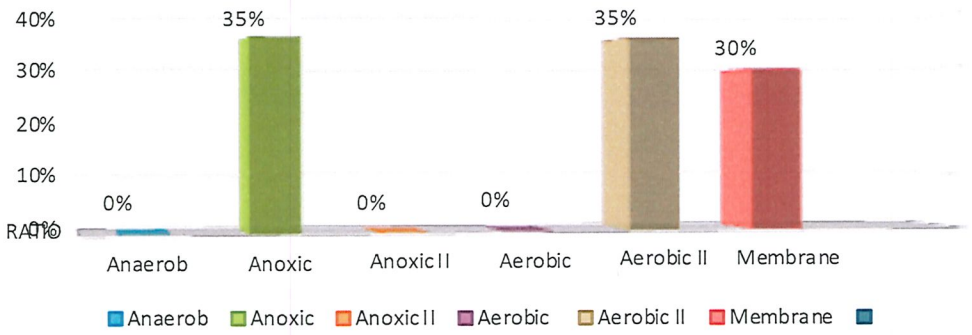
N Removal	Symbol	Value	Units
Factor of safety	S_f	1.2	-
Nitrogen requirements	FN_{synth}	11	kgN/d
Nitrogen requirements	$TKN_{i,synth}$	16.32	gN/m3
Influent non-bio. soluble organic N	$N_{nbios,i}$	1.8	mgN/l
Influent non-bio. particulate org. N	$N_{nbiop,i}$	10.3	mgN/l
Influent biodegradable organic N	$N_{bio,i}$	18.2	mgN/l
Effluent non-bio. soluble organic N	$N_{nbios,e}$	1.8	mgN/l
NH4 concentration avail. for nitri.	N_{an}	38.6	mgN/l
Effluent ammonia	$N_{a,e}$	0.3	mgN/l
Effluent TKN	$N_{TKN,e}$	2.1	mgN/l
N concentration into sludge prod.	N_s	19.6	mgN/l
Nitrification capacity	N_c	38.3	mgN/l
Denitrification potential RBCOD	$D_{p1RBCOD}$	30.0	$mgNO_3$-N/l
Denitrification potential SBCOD	$D_{p1SBCOD}$	35.8	$mgNO_3$-N/l
Denitrification potential RBCOD	$D_{p3RBCOD}$	0.0	$mgNO_3$-N/l
Denitrification potential SBCOD	$D_{p3SBCOD}$	0.0	$mgNO_3$-N/l
Minimum sludge age for nitri.	SRT_m	4.9	d
Denitrification potential primary tank	D_{p1}	65.8	mgN/l
Denitrification potential secondary tank	D_{p3}	0.0	mgN/l
Denitri. potential recycle rate ($f_{xm} = f_{xdm}$)	D_{p^*}	30.7	mgN/l
Effluent nitrate	$N_{NO3,e}$	0.0	mgN/l
Effluent nitrate @ f_{xdm} & recycle rate	N_{NO3,e^*}	7.7	mgN/l

P Removal	Symbol	Value	Units
COD lost in anaerobic reatcor	$S_{F,ANn}$	0.0	$gCOD/m^3$
COD lost in anaerobic reatcor	S_{F,ANn^*}	0.0	$gCOD/m^3$
Fermentable COD for AN reactor	$S_{F,I,conv}$	0.0	$gCOD/m^3$
DO in influent	$S_{O2,i}$	0.0	mgO_2/l
PO_4 release AN reactor	$S_{PO4,rel}$	0.0	gP/m^3
P removal by PAOs	ΔP_{PAO}	0.0	gP/m^3
P removal by OHOs	ΔP_{OHO}	0.9	gP/m^3
P removal by endgeneous biomass	ΔP_{XE}	2.4	gP/m^3
P removal by influent inert mass	ΔP_{XI}	4.3	gP/m^3
P into sludge production	P_s	6.6	gP/m^3
Potential P removal by system	$\Delta P_{SYS,POT}$	14.2	gP/m^3
Actual P removal by system	$\Delta P_{SYS,ACT}$	10.0	gP/m^3
Effluent particulate P from TSS	$X_{P,e}$	0.0	gP/m^3
Influent total P	P_i	10.0	gP/m^3
Effluent total P	P_{e^*}	0.0	gP/m^3
P precipitated	P_{prec}	0.0	mgP/l
Precipitation chemical	B_{Alum}	0.0	lb/d
Precipitation chemical	Solution	0.0	gal/d
Density Alum	z_{AL}^{3+}	0.100	lb_{AL}/lb_{prec}
Density Iron	z_{FE}^{3+}	0.077	lb_{FE}/lb_{prec}
Alum efficiency	-	40.0	g/kg
Chemical precipitation sludge	-	0.0	lb/d

Mechanical Process Calculation

Tank Dimensions	Trains	Length	Width	Dia.	Degree	Height	Liquid level	Volume per train	Volume Total	Volume Total
Anaerob	0	.00 ft	.00 ft	.00 ft	0.0	.00 ft	.00 ft	gal	gal	0.0 m3
Anoxic I	1	15.25 ft	25.00 ft	.00 ft	0.0	17.00 ft	14.50 ft	41,350 gal	41,350 gal	156.5 m3
Aerobic	1	15.25 ft	25.00 ft	.00 ft	0.0	17.00 ft	14.50 ft	41,350 gal	41,350 gal	156.5 m3
Anoxic II	0	.00 ft	.00 ft	.00 ft	0.0	.00 ft	.00 ft	gal	gal	0.0 m3
Aerobic	0	.00 ft	.00 ft	.00 ft	0.0	.00 ft	.00 ft	gal	gal	0.0 m3
Membrane	1	32.00 ft	10.00 ft	.00 ft	0.0	17.00 ft	14.50 ft	34,707 gal	34,707 gal	131.4 m3
Sludge	0	.00 ft	.00 ft	.00 ft	0.0	.00 ft	.00 ft	gal	gal	0.0 m3
EQ	0	.00 ft	.00 ft	.00 ft	0.0	.00 ft	.00 ft	gal	gal	0.0 m3

Tank Design	Symbol	Value	Units			
Total process tank volume		117,408	gallons	Weir level	1.0	inches
Total process tank volume$_{calc}$		**111,131**	gallons	Weir length	13.0	ft
Unaerated tank percentage		35	%	Velocity	0.96	fps
Total tank volume		**117,408**	gallons	Vertical tank	0	
Membrane modules volume		4,443	gallons	Horz. Tank	0	
F/M$_{used,BOD}$		0.060	kgBOD/kgMLSS	Diameter	0	ft
F/M$_{used,COD}$		0.113	kgCOD/kgMLSS			



Process Volume Distribution

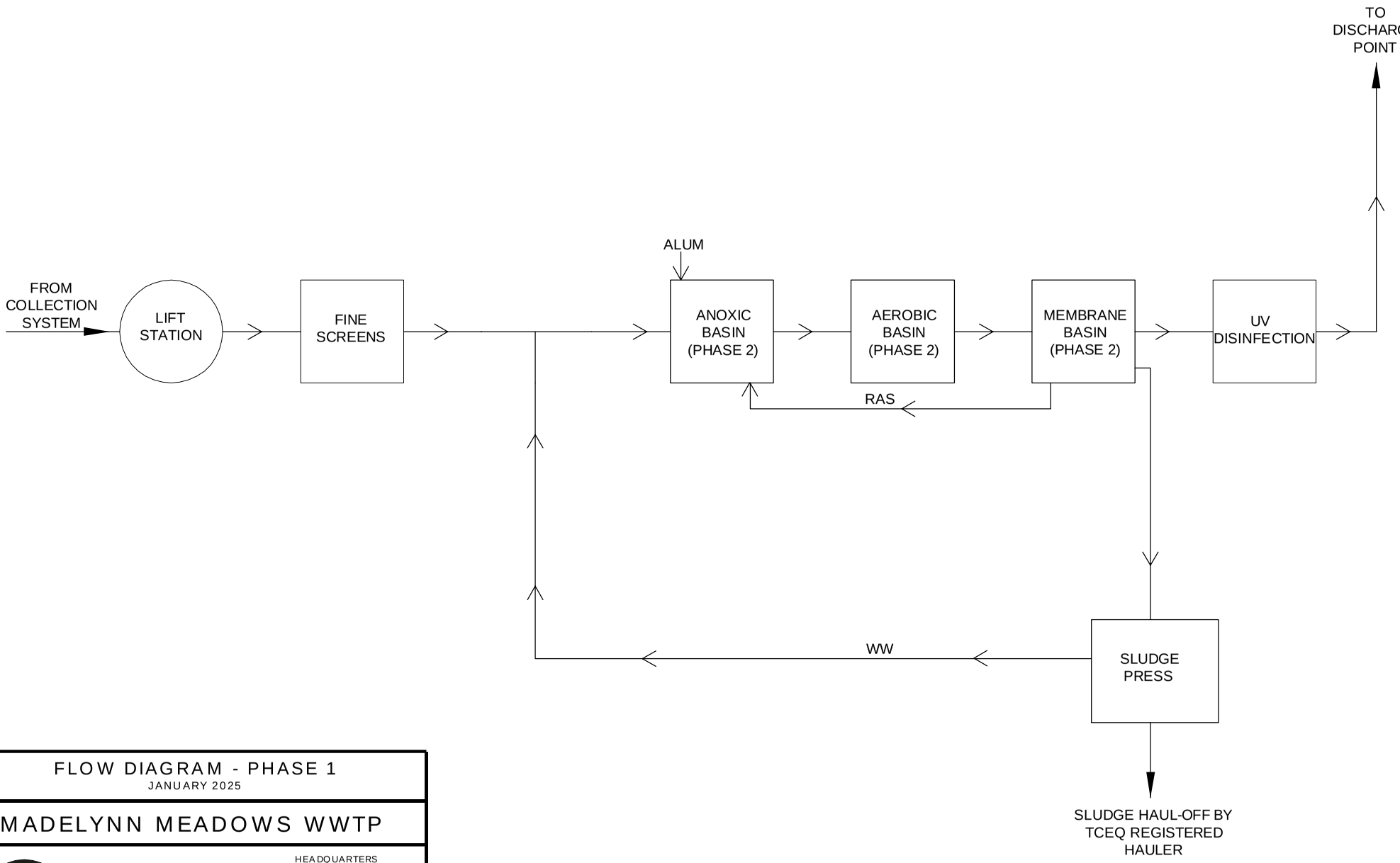
Air Flow Design	Symbol	Membrane per train	Aerobic per train	Sludge	EQ	Unit
Minimum air flow	$Q_{A,re}$	513	434	0	0	acfm / scfm
Chosen air flow - actual	$Q_{A,\ chosen}$	514	412	0	0	acfm
Chosen air flow - inlet	$Q_{A,chosen}$	954	748	0	0	m^3/h
Chosen air flow - inlet	$Q_{A,chosen}$	**561**	**440**	**0**	**0**	scfm
Chosen air flow - piping	$Q_{A,chosen}$	370	290	0	0	acfm
Pipe pressure	p_b	7.5	7.5	0.0	0.0	psi
Pipe losses	H	0.07	0.35	0.00	0.00	psi
Equivalent length in pipe looses	L_p	400	400	400	250	feet
Pipe diameter	d	6.0	4.0	2.0	2.0	inches
Internal pipe diameter	d_i	6.36	4.26	2.16	2.16	inches
Standard temperature	T_1	293	293	293	293	K
Pipe temperature	T_2	330	330	293	293	K
Constant	f	0.02	0.02	0.09	0.09	-
Air velocity	v	**28.0**	**48.9**	**0.0**	**0.0**	fps
Atmospheric pressure	$p_{a.l}$	14.5	14.5	14.5	14.5	psi
Absolute pressure	p_2	22.0	22.0	14.5	14.5	psi
Pressure due to tank liquid level	$p_{DWD,m}$	5.7	6.1	0.0	0.0	psi
Pressure due to aeration device	p_{DWD}	0.6	0.5	0.5	0.5	psi
Pressure due to pipe losses & elev.	$p_{DWD,S}$	0.5	0.7	0.4	0.4	psi
Total pipe losses	p_t	6.7	7.3	0.9	0.9	psi
Total pipe losses	p_t	464.4	506.3	62.1	62.1	mbar

$$H = 9.82 \cdot 10^{-8} \cdot \frac{\left(f \cdot L_p T_2 Q_{A.chosen}\right)}{\left(p_2 d_i\right)^5}$$

$$f = \frac{\left(0.029 \cdot d_i^{0.027}\right)}{Q_{A,chosen}^{0.148}} \qquad T_2 = T_1 \left(\frac{p_2}{p_{a,1}}\right)^{0.283}$$

MADELYNN MEADOWS WWTP DESIGN FEATURES

- The area to be occupied by the WWTP is a new large-scale subdivision to be serviced by a new area electric power system which should ensure reliable electric power.
- Back-up generator with capacity to power entire WWTP.
- Generator will have an Automatic Transfer Switch (ATS) for automatic transfer to generator in the event of power loss from electric utility.
- Tanks are over sized to allow for surges in flow.
- Control systems and pumps will be in an enclosed building for protection from weather induced problems.
- Alarm systems monitored by the use of SCADA



FLOW DIAGRAM - PHASE 1

JANUARY 2025

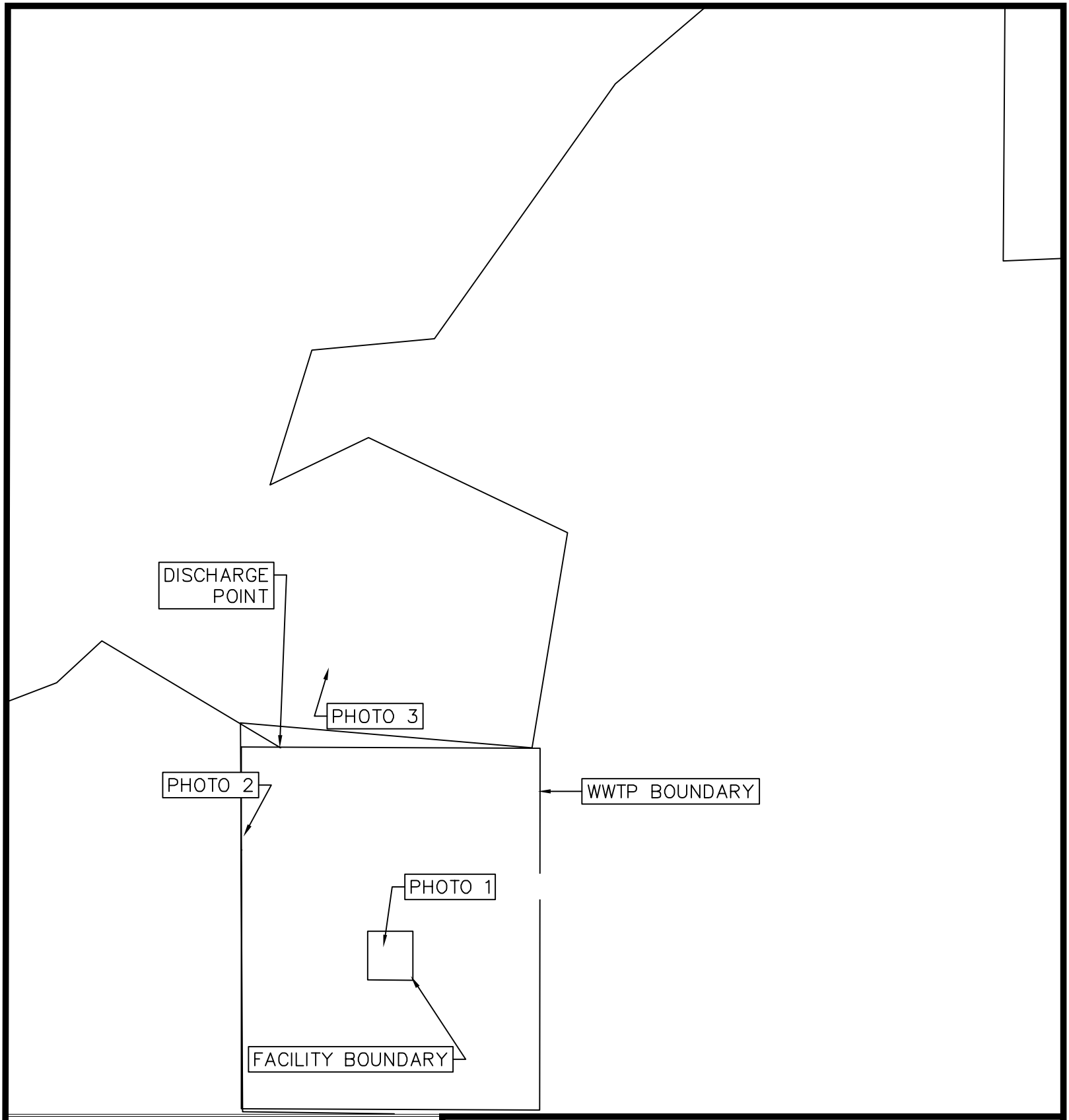
MADELYNN MEADOWS WWTP

Southwest Engineers

TBPE NO. F-1909
www.swengineers.com

HEADQUARTERS
307 Saint Lawrence Street, Gonzales TX 78629
P: 830.672.7546 F: 830.672.2034

CENTRAL TEXAS
205 Cimarron Park Loop, Ste. B, Buda TX 78610
P: 512.312.4336



150' 75' 0 150'

SCALE: 1" = 150'

N

PHOTO MAP

JANUARY 2025

MADELYNN MEADOWS WWTP

Southwest Engineers

TBPE NO. F-1909
www.swengineers.com

HEADQUARTERS
307 Saint Lawrence Street, Gonzales TX 78629
P: 830.672.7546 F:830.672.2034

CENTRAL TEXAS
205 Cimarron Park Loop, Ste. B, Buda TX 78610
P: 512.312.4336

January 2, 2025

To: Texas Commission on Environmental Quality

RE: Allied Development - Collin County Browder Project

To: Whom It May Concern,

In all matters relating to TCEQ and The Discharge Permit for Allied Development Project in Collin County Texas, Parcels ***R-6226-000-0090-1 (25.50 acres), R-6826-000-0050-1 (100.41 acres), R682600000301 (1.55 acres),*** please be advised that Jerry Shepherd of Southwest Engineers, is authorized to sign on behalf of Allied Development.

Thank you,

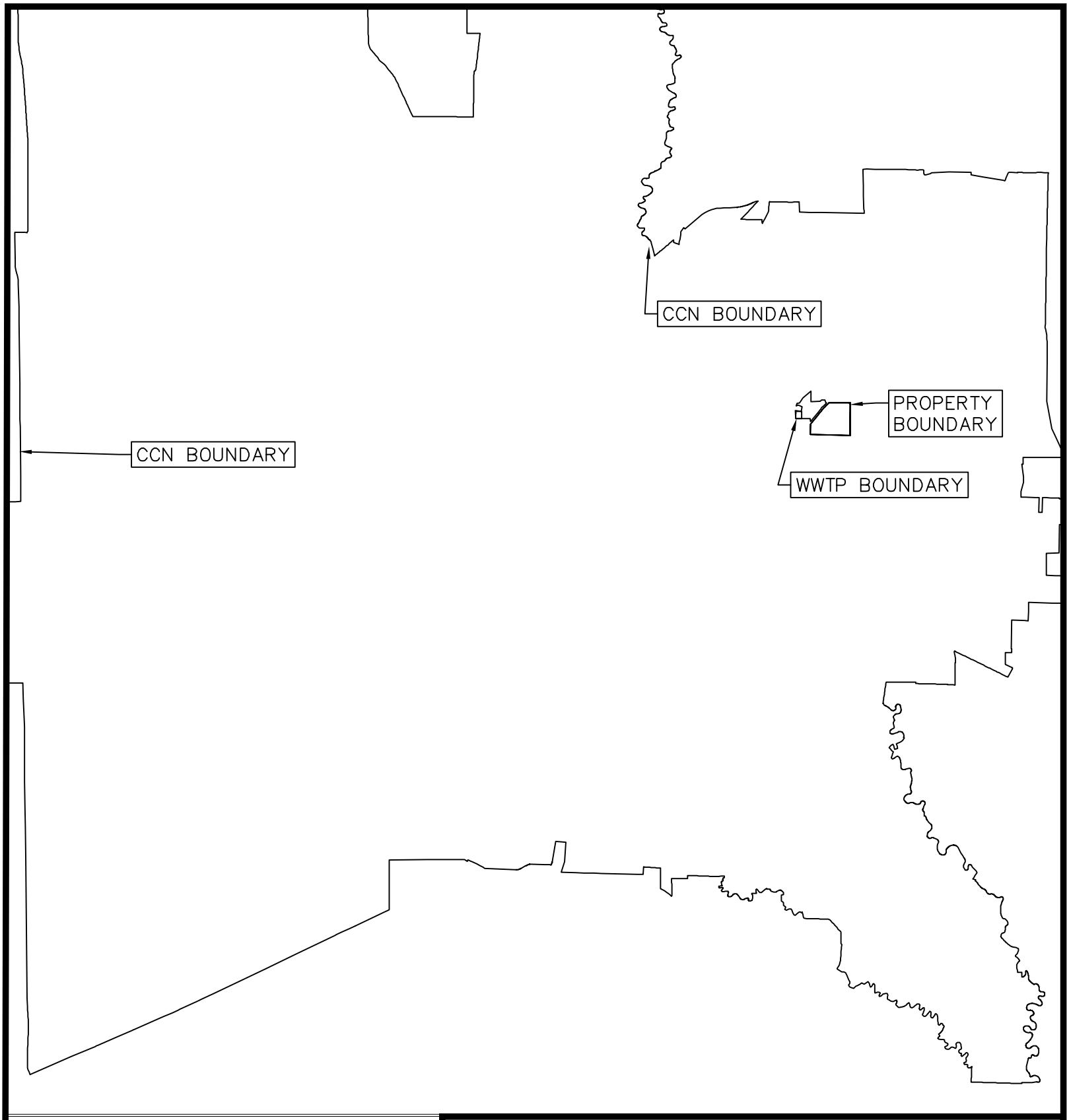
Signed by:
Joe Deaser
2C327ED1AE1B491...

Joe Deaser
Director of Entitlements

The City of McKinney has not responded to our request for service in the 30 days allotted. Attached also is a manager's notes stating that they are planning to decertify their CCN to get rid of the parts of their service which are not in the city limits of McKinney. Since Madelynn Meadows WWTP is not in the City of McKinney, they will not be in the CCN boundary for the City of McKinney.

Development Services-

- Certificates of Convenience and Necessity (CCN) Decertification Process Update
    - CCNs grant the holder the exclusive right to provide retail water and wastewater service to a defined land area. McKinney petitioned to decertify portions of our water and wastewater CCNs located outside our city limits where utility services are not already being provided in October 2023.
    - CCN decertification process next steps:
        - There will be a public meeting before the Texas Public Utility Commission's (PUC) Commissioners, where they will decide which issues will be addressed at a hearing on the application.
        - Those issues and the case will be sent to the Texas State Office of Administrative Hearings (SOAH). SOAH will hold a preliminary hearing to set a hearing schedule and name parties, likely sometime in late winter/early spring 2025.
        - The parties will have a hearing on the merits, where the Administrative Law Judge will consider the list of issues and draft proposed responses to the issues based on the evidence from the hearing. This process will likely span seven (7) to nine (9) months, with a hearing likely occurring in the fall of 2025.
        - The Administrative Law Judge's proposed responses will be returned to the PUC Commissioners for consideration. After that, it will likely be the first quarter of 2026 before the proposed decision is delivered by the Commissioners.
- October Interactive Development Snapshot Portal
    - View the interactive development-related data at www.mckinneytexas.org/snapshot
    - New Commercial Permits (including building additions)
        - 64 permits issued through October 2024 with a total valuation of $473.8 million compared to 116 permits issued over the same time period in 2023 with a total valuation of $415.9 million
    - Single-Family Residential Permits



7500' 3750 0 7500'

SCALE: 1" = 7500'

N

CCN MAP

JANUARY 2025

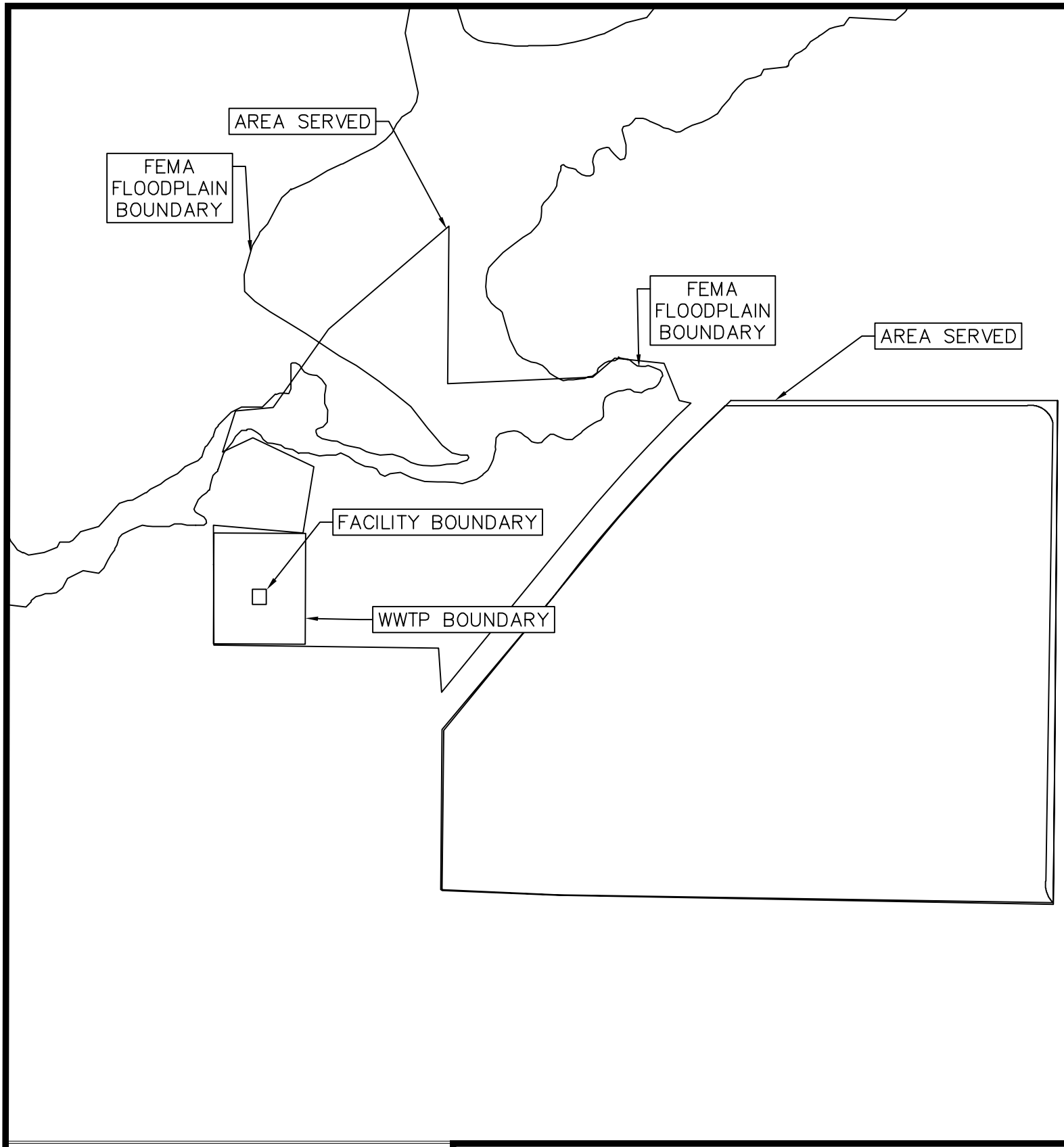
MADELYNN MEADOWS WWTP

Southwest Engineers

TBPE NO. F-1909
www.swengineers.com

HEADQUARTERS
307 Saint Lawrence Street, Gonzales TX 78629
P: 830.672.7546 F:830.672.2034

CENTRAL TEXAS
205 Cimarron Park Loop, Ste. B, Buda TX 78610
P: 512.312.4336



500' 250' 0 500'

SCALE: 1" = 500'

N

FEMA MAP

JANUARY 2025

MADELYNN MEADOWS WWTP

Southwest Engineers

TBPE NO. F-1909
www.swengineers.com

HEADQUARTERS
307 Saint Lawrence Street, Gonzales TX 78629
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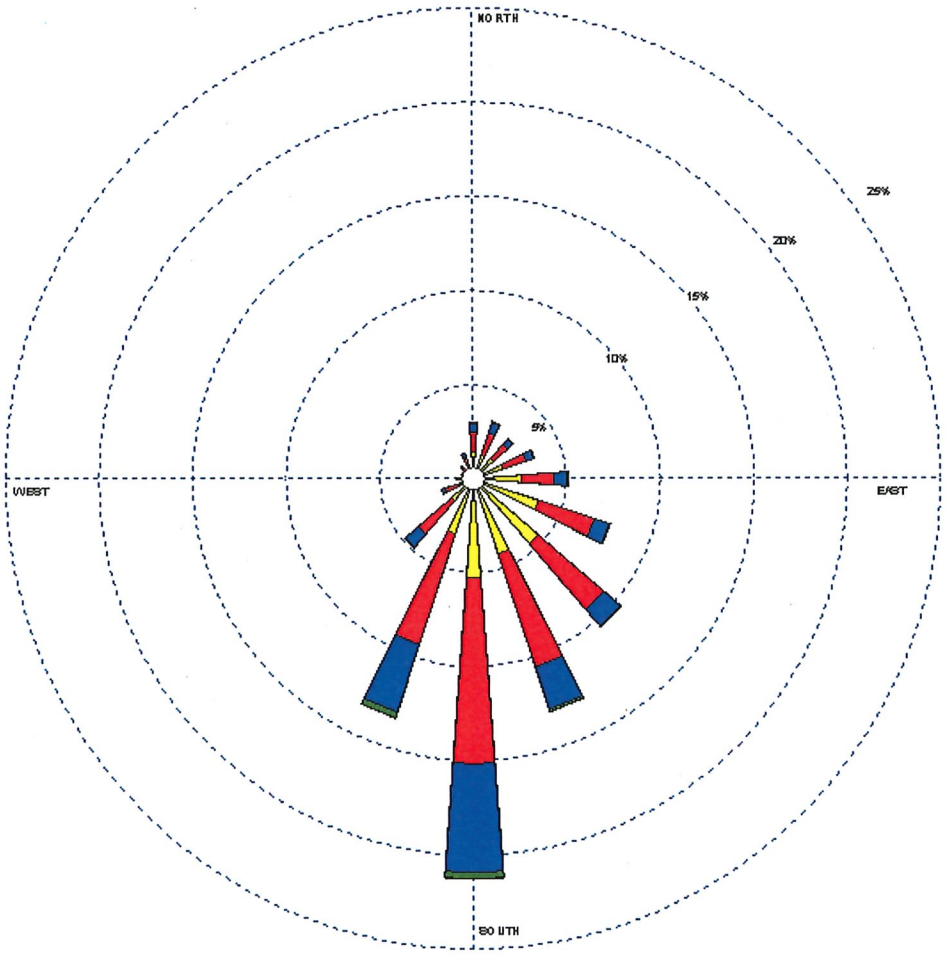
CENTRAL TEXAS
205 Cimarron Park Loop, Ste. B, Buda TX 78610
P: 512.312.4336

Treatment Units
Phase 1 0.175MGD

Treatment Unit Type	Number of Units	Dimensions (L x W x H)
Lift Station	1	12' Diameter
Fine Screen	2	5' x 5' x 5'
Anoxic Basin	1	27' x 18' x 17.5'
Aerobic Basin	1	21' x 18' x 17.5'
Membrane Basin	1	50' x 10' x 17.5'
UV Disinfection	2	6" Diameter x 3.6'
Sludge Press	1	10' x 8' x 8'

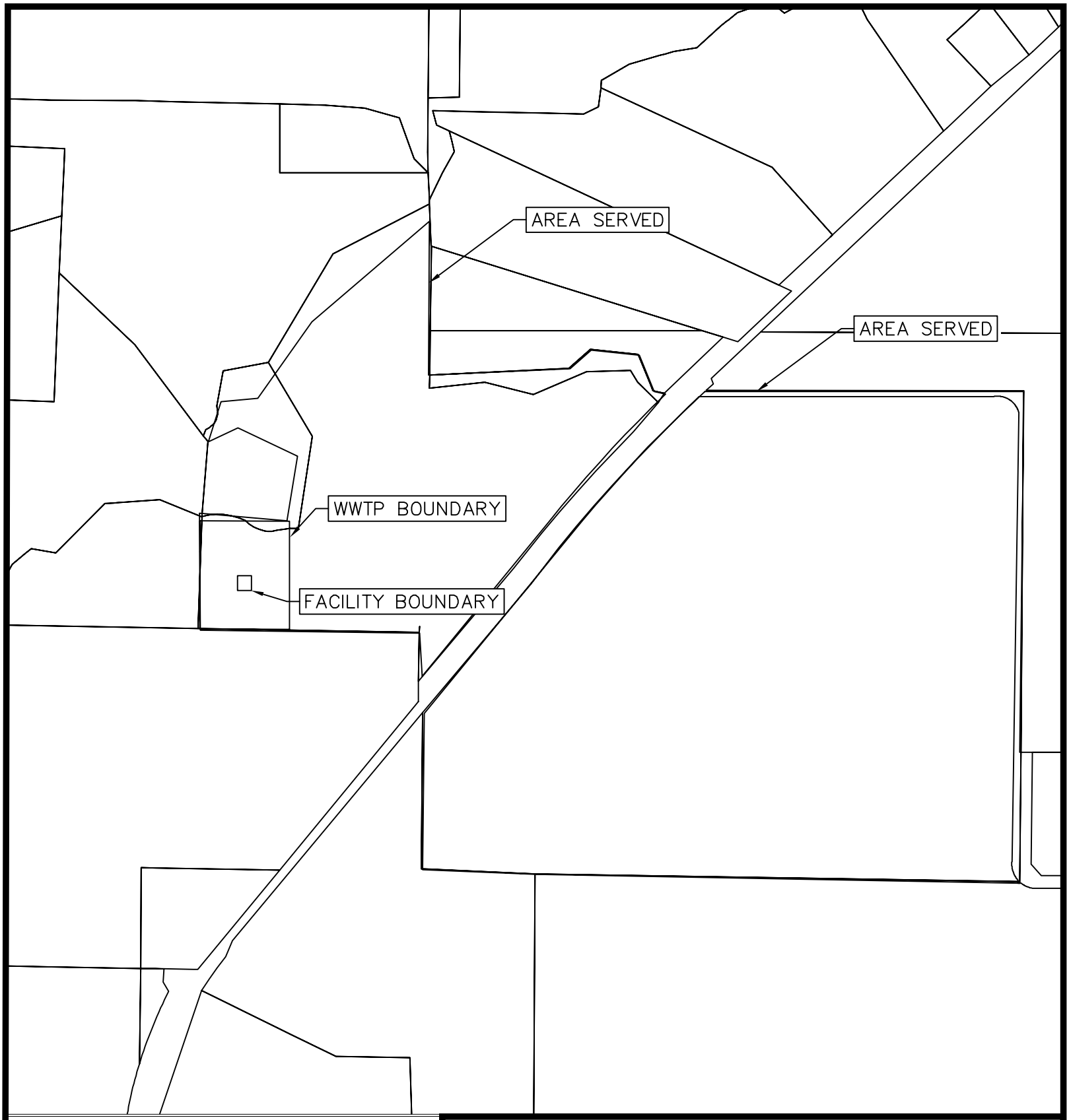
WIND ROSE PLOT

Station #03927 - DALLAS/FORT WORTH/REGIONAL AR, TX



Wind Speed (m/s) > 11.06 8.49 - 11.06 5.40 - 8.49 3.34 - 5.40 1.80 - 3.34 0.51 - 1.80	MODELER Sara West	DATE 8/29/2002	COMPANY NAME USDA-ARS
	DISPLAY Wind Speed	UNIT m/s	COMMENTS
	AVG. WIND SPEED 4.17 m/s	CALM WINDS 5.95%	
	ORIENTATION Direction (blowing from)	PLOT YEAR-DATE-TIME 1961 Aug 1 - Aug 31 Midnight - 11 PM	

WRPLOT View 3.3 by Lakes Environmental Software - www.lakes-environmental.com



500’ 250’ 0 500’

SCALE: 1" = 500'

N

SITE DRAWING

JANUARY 2025

MADELYNN MEADOWS WWTP

Southwest Engineers

TBPE NO. F-1909
www.swengineers.com

HEADQUARTERS
307 Saint Lawrence Street, Gonzales TX 78629
P: 830.672.7546 F:830.672.2034

CENTRAL TEXAS
205 Cimarron Park Loop, Ste. B, Buda TX 78610
P: 512.312.4336

Water Balance is Not Applicable to this permit.

Candice Calhoun

From: Jane Twyford <jane.twyford@swengineers.com>
Sent: Thursday, January 30, 2025 10:25 PM
To: Candice Calhoun; Jerry Shepherd
Cc: josephd@allieddev.com
Subject: RE: Application for Proposed Permit No. WQ0016711001 - Allied Development, LLC - Notice of Deficiency
Attachments: 2025-01-30 14-48.pdf; USGS AD.pdf; Landowner List.xlsx; SITE BASE AFFECTED LAN.pdf; Landowner Avery Template.docx; Municipal Discharge New Spanish NORI.docx

Hi Candice,

The mailing address is correct.

Attached is a notarized signature authorization.

Attached is the USGS for the Administrative report.

Attached is the Landowner Map, list and label template.

The NORI looks good.

Also attached is the Spanish NORI.

Thanks,

Jane Twyford

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Tuesday, January 28, 2025 12:08 PM
To: Jerry Shepherd <jerry.shepherd@swengineers.com>
Cc: josephd@allieddev.com
Subject: RE: Application for Proposed Permit No. WQ0016711001 - Allied Development, LLC - Notice of Deficiency
Importance: High

My apologies, I forgot to include the Spanish NORI Template. Please see attached.

Candice Courville
License & Permit Specialist
ARP Team | Water Quality Division
Texas Commission on Environmental Quality
512-239-4312
candice.calhoun@tceq.texas.gov

Candice Calhoun

From: Jane Twyford <jane.twyford@swengineers.com>
Sent: Friday, January 31, 2025 9:45 AM
To: Candice Calhoun; Jerry Shepherd
Cc: josephd@allieddev.com
Subject: RE: Application for Proposed Permit No. WQ0016711001 - Allied Development, LLC - Notice of Deficiency
Attachments: SITE BASE USGS AD 2.pdf; 5d - Landowner List.xlsx; 5e - Landowner Avery Template.docx; SITE BASE AFFECTED LAN 3.pdf

Candice,

Here is the attached information.

Thanks,

Jane Twyford
Engineering Assistant
p: (830) 672-7546
a: 307 Saint Lawrence Street, Gonzales, Texas 78629
w: swengineers.com
TBPE No. F-1909

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Friday, January 31, 2025 9:33 AM
To: Jane Twyford <jane.twyford@swengineers.com>; Jerry Shepherd <jerry.shepherd@swengineers.com>
Cc: josephd@allieddev.com
Subject: RE: Application for Proposed Permit No. WQ0016711001 - Allied Development, LLC - Notice of Deficiency

Good morning, Ms. Twyford,

Thank you, your response to items 1.i, 4, and 5 is sufficient. However, more information is needed for items 1.ii, 2, 3.i, 3.ii, 3.iii. Please see below.

1. Item 1.ii: Certification – unfortunately, the signature "page" provided is insufficient. You must use TCEQ's signature page located in form number 10053.

2. Item 2: USGS Map – The map provided does not include a highlighted discharge route. As stated in the application instructions: "only use a yellow or light-colored highlighter, do not mark over the discharge route with dark ink". Please provide an updated map to include this.

3. Item 3: Landowner Information – the map provided does not include a highlighted discharge route. Also, the map is missing affected landowners. Per the application

instructions (form number 10053-ins) you are to show "the property boundaries of landowners surrounding the applicant's property". The location of the treatment facility must be shown within the applicant's property. If the facility is not located on the applicant's property, the owner of that land must apply as a co-applicant, or you must provide a lease agreement. Please provide an updated map to include this. Please also provide an updated landowners list and labels to include the missing landowners. Please also provide the list in a PDF or Microsoft Word document and provide the labels in a Microsoft Word document.

Please let me know if you have any additional questions.

Regards,

Candice Courville
License & Permit Specialist
ARP Team | Water Quality Division
Texas Commission on Environmental Quality
512-239-4312
candice.calhoun@tceq.texas.gov

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

---

From: Jane Twyford <jane.twyford@swengineers.com>
Sent: Thursday, January 30, 2025 10:25 PM
To: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>; Jerry Shepherd <jerry.shepherd@swengineers.com>
Cc: josephd@allieddev.com
Subject: RE: Application for Proposed Permit No. WQ0016711001 - Allied Development, LLC - Notice of Deficiency

Hi Candice,

The mailing address is correct.

Attached is a notarized signature authorization.

Attached is the USGS for the Administrative report.

Attached is the Landowner Map, list and label template.

The NORI looks good.

Also attached is the Spanish NORI.

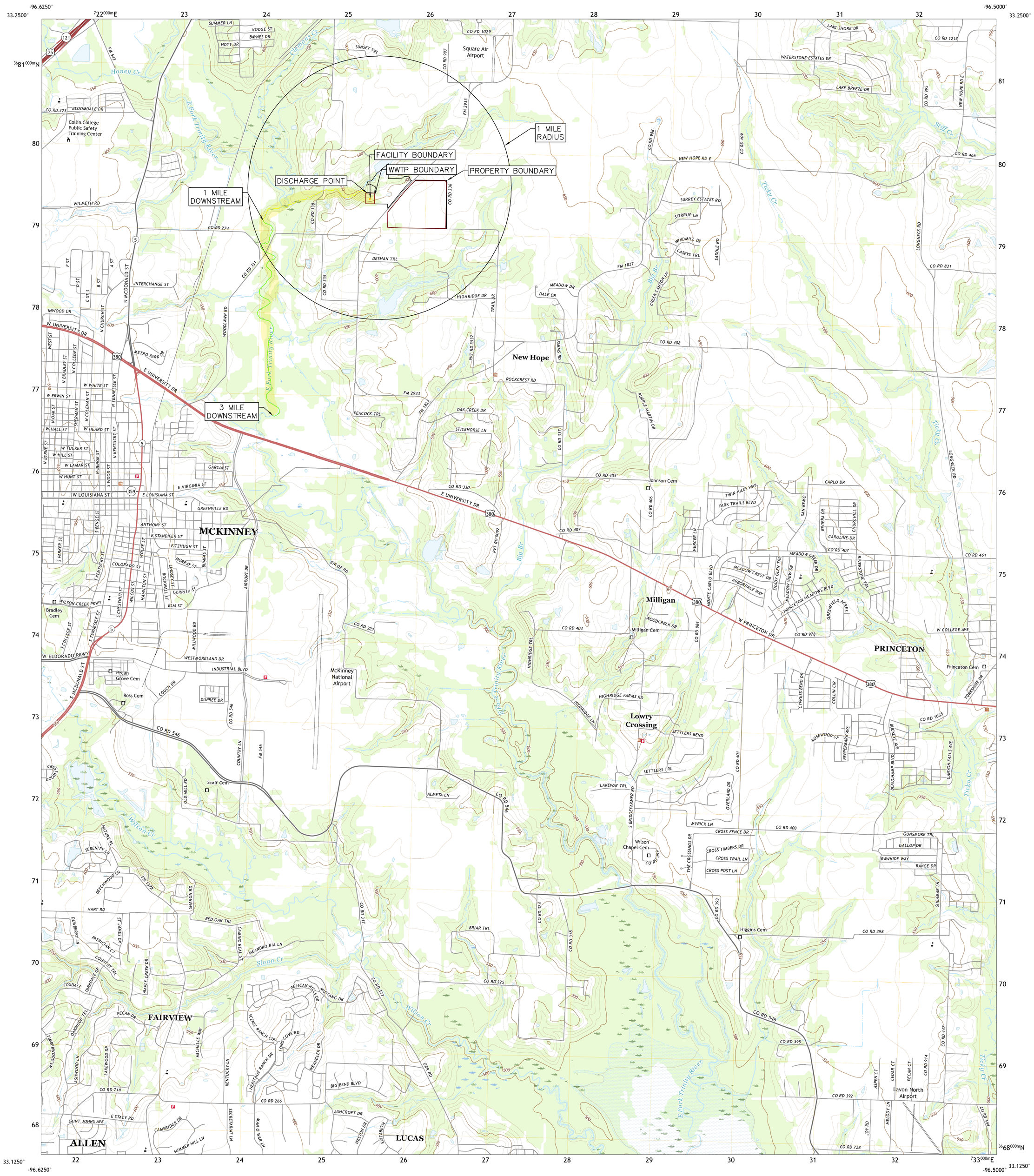
Thanks,

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

USGS science for a changing world

The National Map US Topo

MCKINNEY EAST QUADRANGLE
TEXAS - COLLIN COUNTY
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 14S

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 - 2018
Names.....GNIS, 1979 - 2021
Hydrography.....National Hydrography Dataset, 2002 - 2018
Contours.....National Elevation Dataset, 2005
Boundaries.....Multiple sources; see metadata file 2019 - 2021

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

MN
GN
3°2'
54 MILS
1°20'
24 MILS

UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

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

SCALE 1:24 000

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

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

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

TEXAS
QUADRANGLE LOCATION

ADJOINING QUADRANGLES
1 Weston
2 Anna
3 Blue Ridge
4 McKinney West
5 Culleoka
6 Plano
7 Wylie
8 Lavon

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

MCKINNEY EAST, TX
2022

2000' 1000' 0 2000'

SCALE: 1" = 2000'

USGS TOPO MAP
JANUARY 2025

MADELYNN MEADOWS WWTP

Southwest Engineers
TBPE NO. F-1909
www.swengineers.com

HEADQUARTERS
307 Saint Lawrence Street, Gonzales TX 78629
P: 830.672.7546 F:830.672.2034

CENTRAL TEXAS
205 Cimarron Park Loop, Ste. B, Buda TX 78610
P: 512.312.4336

Candice Calhoun

From:	Candice Calhoun
Sent:	Thursday, February 13, 2025 3:45 PM
To:	Jerry Shepherd
Cc:	josephd@allieddev.com; Erwin Madrid
Subject:	Application for Permit No. WQ0016711001 - Notice of Deficiency 30-Day Will Return Letter
Attachments:	WQ0016711001_Will Return Ltr.pdf
Importance:	High

Dear applicant,

The attached Notice of Deficiency 30-Day Will Return Letter was mailed on February 14, 2025, requesting additional information needed to declare the application administratively complete. The original will be sent by certified mail. Please send the complete response by March 16, 2025.

Regards,

Candice Courville
License & Permit Specialist
ARP Team | Water Quality Division
Texas Commission on Environmental Quality
512-239-4312
candice.calhoun@tceq.texas.gov

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

Candice Calhoun

From: Jane Twyford <jane.twyford@swengineers.com>
Sent: Friday, February 14, 2025 8:49 AM
To: Candice Calhoun
Cc: Joey Deaser; Jerry Shepherd
Subject: RE: Signature authorization
Attachments: 5d - Landowner List.xlsx; 5e - Landowner Avery Template.docx; Sign Page.pdf; 14- SITE BASE AFFECTED LAN.pdf

Good Morning Candince,

Here is the information you requested.

Thanks,
Jane Twyford

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Wednesday, February 12, 2025 8:45 AM
To: Jane Twyford <jane.twyford@swengineers.com>
Cc: Joey Deaser <josephd@allieddev.com>; Jerry Shepherd <jerry.shepherd@swengineers.com>
Subject: RE: Signature authorization
Importance: High

Good morning, Ms. Twyford,

Unfortunately, the signature page is still insufficient. Please see the 1st attached email regarding what is needed regarding the signature page. Also, the landowner map is still insufficient. Please see the 2nd attached email, regarding what is needed for the map. Also, please provide an updated landowner list and labels, if necessary, depending on the missing landowners on the map.

Since the deadline for a complete response has passed, a 30-day notice will be issued. Please let me know if you have any questions.

Regards,

Candice Courville
License & Permit Specialist
ARP Team | Water Quality Division
Texas Commission on Environmental Quality
512-239-4312
candice.calhoun@tceq.texas.gov

Candice Calhoun

From: Jane Twyford <jane.twyford@swengineers.com>
Sent: Tuesday, February 18, 2025 10:31 AM
To: Candice Calhoun
Cc: Joey Deaser; Jerry Shepherd
Subject: RE: Signature authorization
Attachments: SITE BASE AFFECTED LAN 2-18-25.pdf; 2-18-25- Landowner List.pdf; 5e - Landowner Avery Template.docx

Candice,

Hope these are better.

Thanks,

Jane Twyford
Engineering Assistant
p: (830) 672-7546
a: 307 Saint Lawrence Street, Gonzales, Texas 78629
w: swengineers.com
TBPE No. F-1909

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Tuesday, February 18, 2025 9:35 AM
To: Jane Twyford <jane.twyford@swengineers.com>
Cc: Joey Deaser <josephd@allieddev.com>; Jerry Shepherd <jerry.shepherd@swengineers.com>
Subject: RE: Signature authorization

Good morning, Jane,

Thank you, the section 3 provided is sufficient. However, more information is needed for the landowner information. Please see below.

Landowner Map – The discharge route is not highlighted, as well as the applicant property boundary, WWTP boundary and the affected landowner boundaries are not clearly delineated. Please provide an updated map to include a highlighted discharge route as well as to clearly delineate the property boundaries.

Landowner List – Please provide the list in a PDF or Word format.

Landowner Labels – The labels are not in the correct format. The labels must be in all caps as well as no punctuation. Please provide updated labels.

	Name	Address	City, State Zip
1	Joe and Mary Borchard	PO Box 354	McKinney, TX 75070
2	2118 CR 338 LLC	2218 CR 338	McKinney, TX 75071
3	Gary Gibson	1984 CR 338	McKinney, TX 75071
4	Margaret Roddey Oneal	2235 CR 338	McKinney, TX 75071
5	Miranda Mario and Patricia Aguilar	6612 Lake Meadow Ln.	Sachse, TX 75048
6	Chad and Amy Teague	PO Box 1713	McKinney, TX 75070
7	Lacore Agriculture LLC	901 Sam Rayburn Hwy	Melissa, TX 75454
8	Stacy and Keith Andrew	PO Box 388	McKinney, TX 75070
9	Nicole Mayer	3361 FM 2933	McKinney, TX 75071
10	Susan L Miles	7425 Oak Ridge Drive	Plano, TX 75025
11	Bellemeade Farm LP	1974 Bellemeade Lane	McKinney, TX 75071
12	Stacy Edwards and Linda James	1006 S Wellington Point Rd	McKinney, Texas 75072
13	Rayburn County Electric Cooperative Inc	PO Box 37	Rockwall, Texas 75087
14	North Texas Municipal Water District	PO Box 2408	Wylie, Texas 75098

JOE AND MARY BORCHARD
PO BOX 354
MCKINNEY TX 75070

2118 CR 338 LLC
2218 CR 338
MCKINNEY TX 75071

GARY GIBSON
1984 CR 338
MCKINNEY TX 75071

MARGARET RODDEY ONEAL
2235 CR 338
MCKINNEY TX 75071

MIRANDA MARIO AND PATRICIA AGUILAR
6612 LAKE MEADOW LN.
SACHSE TX 75048

CHAD AND AMY TEAGUE
PO BOX 1713
MCKINNEY TX 75070

LACORE AGRICULTURE LLC
901 SAM RAYBURN HWY
MELISSA TX 75454

STACY AND KEITH ANDREW
PO BOX 388
MCKINNEY TX 75070

NICOLE MAYER
3361 FM 2933
MCKINNEY TX 75070

SUSAN L MILES
7425 OAK RIDGE DRIVE
PLANO TX 75025

BELLEMEADE FARM LP
1974 BELLEMEADE LANE
MCKINNEY TEXAS 75071

STACY EDWARDS AND LINDA JAMES
1006 S WELLINGTON POINT ROAD
MCKINNEY TEXAS 75072

RAYBURN COUNTY ELECTRICAL COOPERATIVE INC
PO BOX 37
ROCKWALL TEXAS 75087

NORTH TEXAS MUNICIPAL WATER DISTRICT
PO BOX 2408
WYLIE TEXAS 75098

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?

Click to enter text.

(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: 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: Mr. Last Name, First Name: Shepherd, Jerry

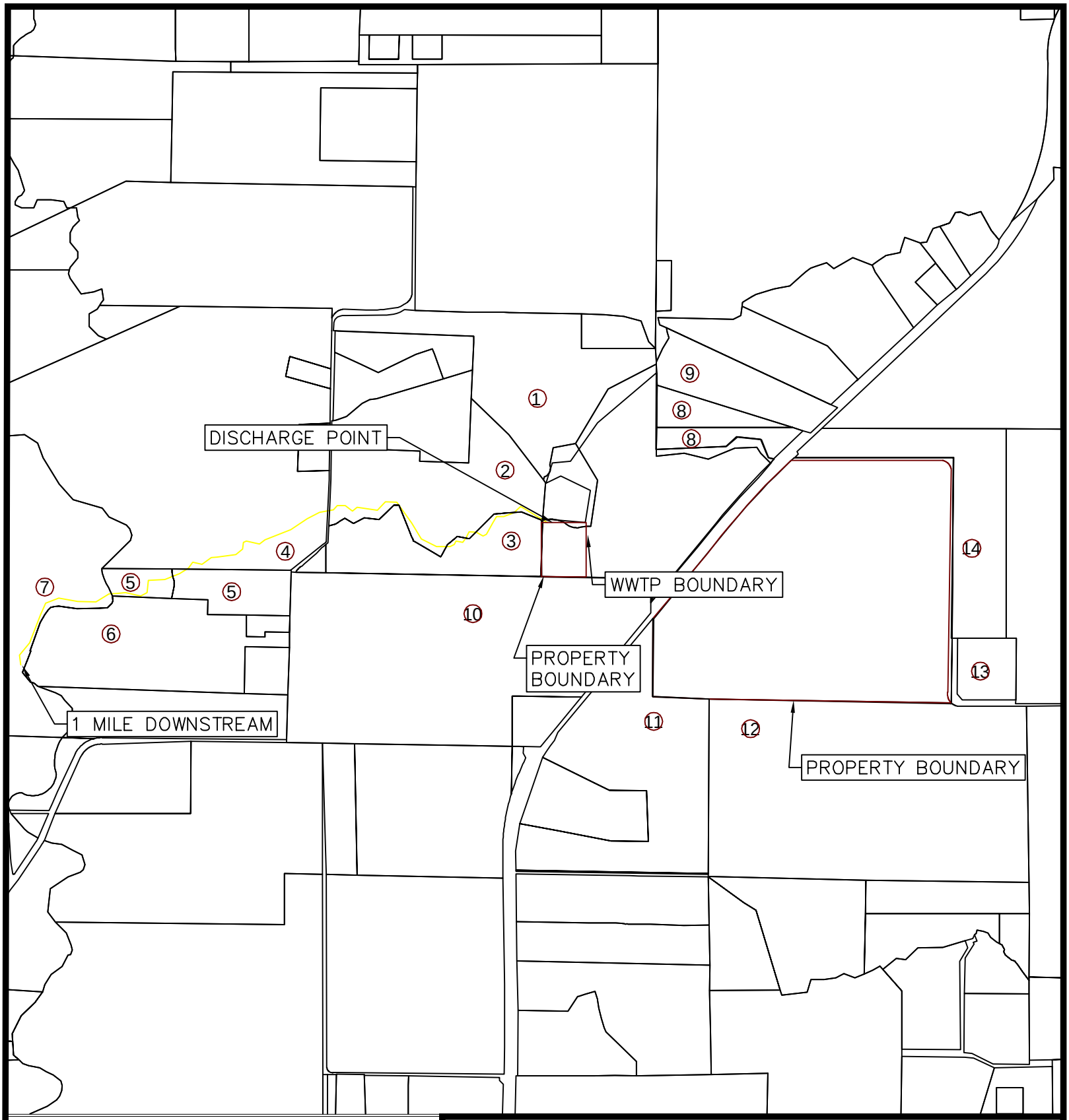
Title: Director of Public Infrastructure Credential: P.E.

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.)



1000' 500' 0 1000'

SCALE: 1" = 1000'

AFFECTED LANDOWNERS

JANUARY 2025

MADELYNN MEADOWS WWTP

Southwest Engineers

TBPE NO. F-1909
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