



Administrative Package Cover Page

This file contains the following documents:

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



Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

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

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

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.

Generation Park Management District (CN604386060) and MRA Northeast, L.P. (CN606362754) proposes to operate Generation Park Management District East Wastewater Treatment Plant (RN112166004),. a domestic wastewater treatment facility. The facility will be located approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive, in Houston, Harris County, Texas 77044.

This application is for a new permit to discharge at an ultimate average flow of 2,800,000 gallons per day of treated domestic wastewater via an outfall into a series of detention basins and ultimately to the San Jacinto River Basin.

Discharges from the facility are expected to contain Carbonaceous Biochemical Oxygen Demand (5-day)(CBOD₅), total suspended solids (TSS), and ammonia nitrogen (NH₃-N). Additional potential pollutants are unknown as this is a new wastewater treatment plant. Domestic wastewater will be treated by activated sludge process with single stage nitrification.

RESUMEN DE LA SOLICITUD EN LENGUAJE SENCILLO PARA LAS SOLICITUDES DE PERMISOS TPDES O TLAP

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.

El Distrito de Gestión de Generation Park (CN604386060) y MRA Northeast, L.P. (CN606362754) propone operar Planta de Tratamiento de Aguas Residuales del Este del Distrito de Gestión de Generation Park (RN112166004), una instalación de tratamiento de aguas residuales domésticas. La instalación está ubicada en aproximadamente 1,400 pies al norte de la intersección de Lake Houston Parkway y Common Dock Drive, en Houston, Condado de Harris, Texas 77044. Esta solicitud es para un nuevo permiso para descargar un caudal promedio final de 2.800.000 galones por día de aguas residuales domésticas tratadas a través de un desagüe en una serie de cuencas de detención y, en última instancia, en la cuenca del río San Jacinto.

Se espera que las descargas de la instalación contengan Demanda bioquímica de oxígeno carbonoso (5-días)(CBOD₅), sólidos suspendidos totales (TSS) y nitrógeno amoniacal (NH₃-N). Se desconocen otros posibles contaminantes ya que se trata de una nueva planta de tratamiento de aguas residuales.. Aguas residuales domésticas. estará tratado por roceso de lodos activados con nitrificación en una sola etapa.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PROPOSED PERMIT NO. WQ0016745001

APPLICATION. Generation Park Management District and MRA Northeast, L.P., 1300 Post Oak Boulevard, Suite 2400, Houston, Texas 77056, have applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0016745001 (EPA I.D. No. TX0147567) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 2,800,000 gallons per day. The domestic wastewater treatment facility will be located approximately 1,400 feet north of the intersection of Lake Houston Parkway and Common Dock Drive, near the city of Houston, in Harris County, Texas 77044. The discharge route will be from the plant site to a detention basin; thence to a storm sewer; thence to an unnamed tributary; thence to San Jacinto River Tidal. TCEQ received this application on March 5, 2025. The permit application will be available for viewing and copying at TCEQ Region 12 Office, Suite H, 5425 Polk Street, Houston, 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=-95.170277,29.900833&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 Generation Park Management District and MRA Northeast, L.P. at the address stated above or by calling Mr. Vernon Webb II, P.E., District Engineer, IDS Engineering Group, at (832) 590-7210.

Issuance Date: April 16, 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. WQ0016745001

SOLICITUD. El Distrito de Gestión de Generation Park y MRA Northeast, L.P., 1300 Post Oak Boulevard, Suite 2400, Houston, Texas 77056, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para el propuesto Permiso No. WQ0016745001 (EPA I.D. No. TX0147567) 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 2,800,000 galones por día. La planta está ubicada aproximadamente 1,400 pies al norte de la intersección de Lake Houston Parkway y Common Dock Drive, cerca de la ciudad de Houston, en el Condado de Harris, Texas 77044. La ruta de descarga es del sitio de la planta a una cuenca de detención sin nombre; de allí al alcantarillado pluvial; de allí a una serie de cuencas y canales de detención sin nombre; de allí a un afluente sin nombre; de allí a la marea del río San Jacinto. La TCEQ recibió esta solicitud el 5 de Marzo de 2025. La solicitud para el permiso está disponible para leerla y copiarla en Oficina de la Región 12 de la TCEQ, Suite H, 5425 Polk Street, Houston, en el condado de Harris, Texas. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.170277,29.900833&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 todos los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud.** Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso. Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

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

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

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director

Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de 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 específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

CONTACTOS E INFORMACIÓN DE LA TCEQ. Todos los comentarios escritos del público y los para pedidos una reunión deben ser presentados a la Oficina del Secretario Principal, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o por el internet at www.tceq.texas.gov/about/comments.html. 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. Si necesita más información en Español sobre esta solicitud para un permiso o el proceso del permiso, por favor llame a El Programa de Educación Pública de la TCEQ, sin cobro, al 1-800-687-4040. La información general sobre la TCEQ puede ser encontrada en nuestro sitio de la red: www.tceq.texas.gov.

También se puede obtener información adicional del El Distrito de Gestión de Generation Park y MRA Northeast, L.P. a la dirección indicada arriba o llamando a Mr. Vernon Webb, II, P.E., Ingeniero de Distrito, al (832) 590-7210.

Fecha de emisión 16 de abril de 2025

March 26, 2025

Abesha H. Michael
Applications Review and Processing Team (MC148)
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

Reference: Notice of Deficiency Letter dated March 11, 2025
Application for Proposed Permit No.: WQ0016745001 (EPA I.D. No. TX0147567)
Applicant Name: Generation Park Management District (CN604386060)
MRA Northeast, L.P. (CN606362754)
Site Name: Generation Park Management District East WWTP (RN12166004)
IDS Project No. 1339-012-04

Dear Ms. Michael,

Thank you for your review of the new permit application referenced above. Please see our responses below.

1. The hardcopies (one original and two copies) were mailed to TCEQ and delivered March 11, 2025. The tracking number was 772552863164 and the package was signed for by "D. Alba."
2. The address for the applicant (Generation Park Management District) should be used on the permit and for permit correspondence from the TCEQ. For clarity, the address is 1300 Post Oak Blvd, Suite 2400, Houston, TX 77056.
3. Per our phone conversation on 3/25/2025, the location description will remain as "Approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive."
4. Revised Plain Language Summaries in both English and Spanish are attached.
5. An updated Signature Page for the Administrative Report 1.0 is attached. Additionally, the original was mailed to TCEQ on March 26, 2025.
6. The land east-northeast of the co-applicant property boundary is Deussen Park, which is owned by Harris County. The Affected Landowner map has been updated to reflect this information, attached. Also attached are an updated Affected Landowner Cross-Reference List and Microsoft Word file for the mailing labels.

7. The NORI should read as follows (corrections are in red):

Generation Park Management District and MRA Northeast, L.P., 1300 Post Oak Boulevard, Suite 2400, Houston, Texas 77056, has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0016745001 (EPA I.D. No. TX0147567) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 2,800,000 gallons per day. The domestic wastewater treatment facility will be located approximately **1,400 feet north of the intersection of Lake Houston Parkway and Common Dock Drive**, near the city of Houston, in Harris County, Texas **(77044)**. The discharge route will be from the plant site to an unnamed detention basin; thence to storm sewer; thence to a series of unnamed detention basins and channels; thence to an unnamed tributary; thence to San Jacinto River Tidal. TCEQ received this application on March 5, 2025. The permit application will be available for viewing and copying at TCEQ Region 12 Office, Suite H, 5425 Polk Street, Houston, in Harris 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=-95.170277,29.900833&level=18>

Further information may also be obtained from Generation Park Management District and MRA Northeast, L.P. at the address stated above or by calling Mr. Vernon Webb II, P.E., District Engineer, IDS Engineering Group, at (832) 590-7210.

8. The translated Spanish NORI is attached as a Microsoft Word document.

A complete revised permit application has been uploaded to the TCEQ file transfer system. The revised application also includes updates from the technical review dated March 14, 2025. Technical Report 1.0 Section 9D and Technical Report 1.1 Section 3C were revised in accordance with the comments received.

Sincerely,



AnnMarie Burns, E.I.T.
Design Engineer

cc: Vernon H. Webb, II, P.E., IDS Engineering Group
Daniel Ringold, Schwartz, Page & Harding, L.L.P.

X:\1300\133901204 TO 143 Generation Park East\Eng-PM\Reports\Response to 3-11-2025 letter\Response Letter.docx

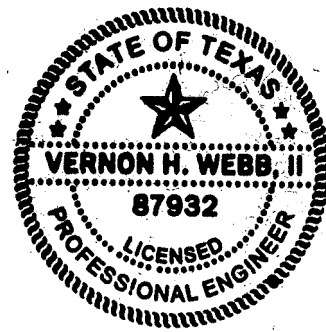
DOMESTIC WASTEWATER PERMIT RENEWAL APPLICATION - REVISED

Texas Commission on Environmental Quality

Generation Park Management District

IDS Project No. 1339-012-04

February 2025



3/26/2025

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Checklist

Administrative Report 1.0

Attachment No. 1 – Core Data Forms (Administrative Report 1.0, Section 3.C.)

Attachment No. 2 – Plain Language Summary (English & Spanish) (Administrative Report 1.0, Section 8.F.)

Attachment No. 3 – Public Involvement Plan Form (Administrative Report 1.0, Section 8.G.)

Attachment No. 4 – USGS Topographic Map (Administrative Report 1.0, Section 13)

Attachment No. 5 – Copy of Payment Voucher

Administrative Report 1.1

Attachment No. 6 – Affected Landowners Map & List of Addresses (Administrative Report 1.1, Section 1.)

Attachment No. 7 – Original Photographs with map (Administrative Report 1.1, Section 2.)

Attachment No. 8 – Buffer Zone Map (Administrative Report 1.1, Section 3.)

Attachment No. 9 – Supplemental Permit Information Form (SPIF)

Checklist of Common Deficiencies

Technical Report 1.0

Attachment No. 10 – Treatment Process Description (Technical Report 1.0, Section 2.A.)

Attachment No. 11 – Treatment Units (Technical Report 1.0, Section 2.B.)

Attachment No. 12 – Process Flow Diagrams (Technical Report 1.0, Section 2.C.)

Attachment No. 13 – Site Map (Technical Report 1.0, Section 3)

Technical Report 1.1

Attachment No. 14 – Justification of Permit Need (Technical Report 1.1, Section 1.A.)

Attachment No. 15 – Nearby WWTPs Map and Proof of Mailing Request for Service (Technical Report, Section 1.3.)

Attachment No. 16 – Design Calculations (Technical Report, Section 4)

Attachment No. 17 – FIRM Panel (Technical Report, Section 5.A.)

Attachment No. 18 – Wind Rose (Technical Report, Section 5.B.)

Attachment No. 19 – Sewage Sludge Solids Management Plan (Technical Report, Section 7)

Worksheet 2.0: Receiving Waters

Worksheet 2.1: Stream Physical Characteristics

Worksheet 6.0: Industrial Waste Contribution



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: Generation Park Management District

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

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

	Y	N		Y	N
Administrative Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original USGS Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Administrative Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Affected Landowners Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SPIF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landowner Disk or Labels	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Core Data Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Buffer Zone Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Public Involvement Plan Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flow Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technical Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technical Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original Photographs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Design Calculations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Solids Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Balance	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 4.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 5.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 6.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Worksheet 7.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

For TCEQ Use Only

Segment Number _____ County _____
Expiration Date _____ Region _____
Permit Number _____



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**DOMESTIC WASTEWATER PERMIT APPLICATION
ADMINISTRATIVE REPORT 1.0**

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

Section 1. Application Fees (Instructions Page 26)

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

Flow	New/Major Amendment	Renewal
<0.05 MGD	\$350.00 <input type="checkbox"/>	\$315.00 <input type="checkbox"/>
≥0.05 but <0.10 MGD	\$550.00 <input type="checkbox"/>	\$515.00 <input type="checkbox"/>
≥0.10 but <0.25 MGD	\$850.00 <input type="checkbox"/>	\$815.00 <input type="checkbox"/>
≥0.25 but <0.50 MGD	\$1,250.00 <input type="checkbox"/>	\$1,215.00 <input type="checkbox"/>
≥0.50 but <1.0 MGD	\$1,650.00 <input type="checkbox"/>	\$1,615.00 <input type="checkbox"/>
≥1.0 MGD	\$2,050.00 <input checked="" type="checkbox"/>	\$2,015.00 <input type="checkbox"/>

Minor Amendment (for any flow) \$150.00 ☐

Payment Information:

Mailed Check/Money Order Number: [Click to enter text.](#)

Check/Money Order Amount: [Click to enter text.](#)

Name Printed on Check: [Click to enter text.](#)

EPAY Voucher Number: 751697/751698

Copy of Payment Voucher enclosed? Yes ☒

Section 2. Type of Application (Instructions Page 26)

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

- ☒ Publicly-Owned Domestic Wastewater
- ☐ Privately-Owned Domestic Wastewater
- ☐ Conventional Wastewater Treatment

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

- ☐ Active ☒ Inactive

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

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

d. Check the box next to the appropriate application type

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

e. For amendments or modifications, describe the proposed changes: [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-Applcant 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?

Generation Park Management District

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

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)?

You may search for your CN on the TCEQ website at <http://www15.tceq.texas.gov/crpub/>

CN: 604386060

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: Neuhaus, Charles W.

Title: Board President

Credential: [Click to enter text.](#)

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

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

MRA Northeast, L.P.

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

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

CN: [Click to enter text.](#)

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

Prefix: Mr.

Last Name, First Name: McCord, Frederick R.

Title: President

Credential: [Click to enter text.](#)

Provide a brief description of the need for a co-permittee: The co-applicant is the current owner of the land where the treatment facility will be located.

C. Core Data Form

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

Section 4. Application Contact Information (Instructions Page 27)

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

A. Prefix: Mr.

Last Name, First Name: Webb II, Vernon

Title: District Engineer

Credential: P.E.

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Fwy, Suite 700 City, State, Zip Code: Houston, TX 77040

Phone No.: 832-590-7210

E-mail Address: vwebb@idseg.com

Check one or both: ☒ Administrative Contact ☒ Technical Contact

B. Prefix: Mr.

Last Name, First Name: Ringold, Daniel

Title: District Attorney

Credential: [Click to enter text.](#)

Organization Name: Schwartz, Page & Harding, L.L.P.

Mailing Address: 1300 Post Oak Blvd, Suite 2400 City, State, Zip Code: Houston, TX 77056

Phone No.: 713-623-4531

E-mail Address: dringold@sphllp.com

Check one or both: ☒ Administrative Contact ☐ Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

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

A. Prefix: Mr.

Last Name, First Name: Neuhaus, Charles W.

Title: Board President

Credential: [Click to enter text.](#)

Organization Name: c/o Schwartz, Page & Harding, L.L.P.

Mailing Address: 1300 Post Oak Blvd, Suite 2400 City, State, Zip Code: Houston, TX 77056

Phone No.: (713) 623-4531

E-mail Address: [Click to enter text.](#)

B. Prefix: Mr.

Last Name, First Name: Deboben III, John R.

Title: Board Vice President

Credential: [Click to enter text.](#)

Organization Name: c/o Schwartz, Page & Harding, L.L.P.

Mailing Address: 1300 Post Oak Blvd, Suite 2400

City, State, Zip Code: Houston, TX 77056

Phone No.: (713) 623-4531

E-mail Address: [Click to enter text.](#)

Section 6. Billing Contact Information (Instructions Page 27)

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

Prefix: Ms.

Last Name, First Name: Colondres, Cynthia

Title: District Bookkeeper

Credential: [Click to enter text.](#)

Organization Name: Municipal Accounts & Consulting, L.P.

Mailing Address: 1281 Brittmoore Rd.

City, State, Zip Code: Houston, TX 77043

Phone No.: (713) 623-4539

E-mail Address: ccolondres@municipalaccounts.com

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

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

Prefix: Ms.

Last Name, First Name: Chapa, Vanessa

Title: Compliance Manager

Credential: [Click to enter text.](#)

Organization Name: Inframark

Mailing Address: 2002 W Grand Pkwy N., Suite 100

City, State, Zip Code: Katy, TX, 77449

Phone No.: (281) 877-2612

E-mail Address: vanessa.chapa@inframark.com

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Ms.

Last Name, First Name: Riley, Vonda

Title: Administrative Assistant

Credential: [Click to enter text.](#)

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Fwy, Suite 700

City, State, Zip Code: Houston, TX 77040

Phone No.: (713) 462-3178

E-mail Address: vriley@idseg.com

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

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

☒ E-mail Address

☐ Fax

☐ Regular Mail

C. Contact permit to be listed in the Notices

Prefix: Mr.

Last Name, First Name: Webb II, Vernon

Title: District Engineer

Credential: P.E.

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Fwy, Suite 700 City, State, Zip Code: Houston, TX 77040

Phone No.: (832) 590-7210

E-mail Address: vwebb@idseg.com

D. Public Viewing Information

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

Public building name: TCEQ Region 12 Office

Location within the building: Reception Area

Physical Address of Building: 5425 Polk Street

City: Houston

County: Harris

Contact (Last Name, First Name): N/A

Phone No.: (713) 767-3500 Ext.: Click to enter text.

E. Bilingual Notice Requirements

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

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

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

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

☒ Yes

☐ No

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

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

☒ Yes

☐ No

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

F. Plain Language Summary Template

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

Attachment: Attachment 2

G. Public Involvement Plan Form

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

Attachment: Attachment 3

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

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

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

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

Generation Park Management District East Wastewater Treatment Plant

C. Owner of treatment facility: Generation Park Management District

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

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

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

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

Organization Name: MRA Northeast, L.P.

Mailing Address: 250 Assay Street, Suite 200 City, State, Zip Code: Houston, TX 77044

Phone No.: (713) 860-3000 E-mail Address: scloonan@mccord.com

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

Attachment: Landowner is co-applicant.

E. Owner of effluent disposal site:

Prefix: N/A

Last Name, First Name: N/A

Title: N/A

Credential: N/A

Organization Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A

E-mail Address: N/A

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

Attachment: N/A

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

Prefix: N/A

Last Name, First Name: N/A

Title: N/A

Credential: N/A

Organization Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A

E-mail Address: N/A

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

Attachment: N/A

Section 10. TPDES Discharge Information (Instructions Page 31)

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

☐ Yes ☐ No

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

Approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive in Harris County, Texas 77044.

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

☐ Yes ☐ No

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

To an unnamed detention basin, thence to storm sewer, thence to a series of unnamed detention basins and channels, thence to an unnamed tributary, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin.

City nearest the outfall(s): Houston

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

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

☐ Yes ☒ No

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

- ☐ Authorization granted ☐ Authorization pending

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

Attachment: N/A

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

Section 11. TLAP Disposal Information (Instructions Page 32)

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

☐ Yes ☐ No

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

N/A

- B. City nearest the disposal site: N/A

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

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

N/A

- E. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: N/A

Section 12. Miscellaneous Information (Instructions Page 32)

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

☐ Yes ☒ No

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

☐ Yes ☐ No ☒ Not Applicable

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

N/A

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

☐ Yes ☒ No

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

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account number: N/A

Amount past due: N/A

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, please provide the following information:

Enforcement order number: N/A

Amount past due: N/A

Section 13. Attachments (Instructions Page 33)

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

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

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

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

☐ Attachment 1 for Individuals as co-applicants

☒ Other Attachments. Please specify: Attachment 1 – Core Data Forms; Attachment 2 – Plain Language Summary (English and Spanish); Attachment 3 – Public Involvement Plan Form; Attachment 4 – USGS Topographic Map; Attachment 5 – Copy of Payment Voucher

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: [Click to enter text.](#)

Applicant: Generation Park Management District

Certification:

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

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

Signatory name (typed or printed): Mr. Charles W. Neuhaus

Signatory title: Board President

Signature: _____

(Use blue ink)

Date: _____

3-19-25

Subscribed and Sworn to before me by the said _____

Charles W. Neuhaus

on this 19th day of March, 2025.

My commission expires on the 28th day of January, 2025.

Linda L Knox
Notary Public

Harris
County, Texas



Section 14. Signature Page (Instructions Page 34)

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

Permit Number: Click to enter text.

Applicant: MRA Northeast, L.P.

Certification:

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

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

Signatory name (typed or printed): Mr. Frederick R. McCord

Signatory title: President

Signature: _____

(Use blue ink)

Date: 2-14-25

Subscribed and Sworn to before me by the said Frederick R. McCord, Jr.

on this 14th day of February, 20 25.

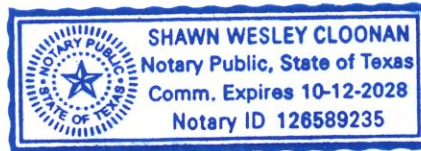
My commission expires on the 12th day of October, 20 25.

[Signature]

Notary Public

Harris

County, Texas



[SEAL]

ATTACHMENT NO. 1

CORE DATA FORMS



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 604386060		RN

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)			
<input type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
Generation Park Management District					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input checked="" type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:	
12. Number of Employees				13. Independently Owned and Operated?	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:	Schwartz, Page & Harding, L.L.P.				
	1300 Post Oak Blvd, Suite 2400				
	City	Houston	State	TX	ZIP 77056 ZIP + 4
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
				dringold@sphllp.com	
18. Telephone Number		19. Extension or Code		20. Fax Number (if applicable)	

SECTION III: Regulated Entity Information

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

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

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

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

Generation Park Management District East Wastewater Treatment Plant

23. Street Address of the Regulated Entity:

(No PO Boxes)

City

State

ZIP

ZIP + 4

24. County

Harris

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

25. Description to Physical Location:

Approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive.

26. Nearest City

State

Nearest ZIP Code

Houston

TX

77044

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

27. Latitude (N) In Decimal:

28. Longitude (W) In Decimal:

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

29

54

3.32

-95

10

13.44

29. Primary SIC Code

30. Secondary SIC Code

31. Primary NAICS Code

32. Secondary NAICS Code

(4 digits)

(4 digits)

(5 or 6 digits)

(5 or 6 digits)

4952

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

Wastewater Treatment Facility

34. Mailing Address:

Schwartz, Page & Harding, L.L.P.

1300 Post Oak Blvd, Suite 2400

City

Houston

State

TX

ZIP

77056

ZIP + 4

3078

35. E-Mail Address:

dringold@sphllp.com

36. Telephone Number

37. Extension or Code

38. Fax Number *(if applicable)*

(713) 623-4531

(713) 623-6143

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


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	AnnMarie Burns			41. Title:	Design Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address		
(832) 590-7153		() -	aburns@idseg.com		

SECTION V: Authorized Signature

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

Company:	Generation Park Management District		Job Title:	Board President	
Name (In Print):	Charles W. Neuhaus			Phone:	() 713-502-9515
Signature:				Date:	12/18/14



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN		RN

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)			
<input checked="" type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
MRA Northeast, L.P.					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
0800309222		32035641169		76-0559742	N/A
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input checked="" type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:	
12. Number of Employees				13. Independently Owned and Operated?	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input checked="" type="checkbox"/> Other: Current owner of land where treatment facility will be located.					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:		MRA Northeast, L.P.			
		250 Assay St., Suite 200			
City		Houston		State	TX
ZIP		77044		ZIP + 4	3506
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
				scloonan@mccord.com	
18. Telephone Number		19. Extension or Code		20. Fax Number (if applicable)	

SECTION III: Regulated Entity Information

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

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

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

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

Generation Park Management District East Wastewater Treatment Plant

23. Street Address of the Regulated Entity:

(No PO Boxes)

City

State

ZIP

ZIP + 4

24. County

Harris

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

25. Description to Physical Location:

Approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive.

26. Nearest City

State

Nearest ZIP Code

Houston

TX

77044

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

27. Latitude (N) In Decimal:

28. Longitude (W) In Decimal:

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

29

54

3.32

-95

10

13.44

29. Primary SIC Code

30. Secondary SIC Code

31. Primary NAICS Code

32. Secondary NAICS Code

(4 digits)

(4 digits)

(5 or 6 digits)

(5 or 6 digits)

4952

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

Wastewater Treatment Facility

34. Mailing Address:

Schwartz, Page & Harding, L.L.P.

1300 Post Oak Blvd, Suite 2400

City

Houston

State

TX

ZIP

77056

ZIP + 4

3078

35. E-Mail Address:

dringold@sphllp.com

36. Telephone Number

37. Extension or Code

38. Fax Number *(if applicable)*

(713) 623-4531

(713) 623-6143

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

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	AnnMarie Burns			41. Title:	Design Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address		
(832) 590-7153		() -	aburns@idseg.com		

SECTION V: Authorized Signature

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

Company:	MRA Northeast, L.P.	Job Title:	President
Name (In Print):	Frederick R. McCord	Phone:	() -
Signature:			Date: 2/14/2025

ATTACHMENT NO. 2

PLAIN LANGUAGE SUMMARY
(ENGLISH AND SPANISH)

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

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.

Generation Park Management District (CN604386060) and MRA Northeast, L.P. (CN606362754) proposes to operate Generation Park Management District East Wastewater Treatment Plant (RN112166004),. a domestic wastewater treatment facility. The facility will be located approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive, in Houston, Harris County, Texas 77044.

This application is for a new permit to discharge at an ultimate average flow of 2,800,000 gallons per day of treated domestic wastewater via an outfall into a series of detention basins and ultimately to the San Jacinto River Basin.

Discharges from the facility are expected to contain Carbonaceous Biochemical Oxygen Demand (5-day)(CBOD₅), total suspended solids (TSS), and ammonia nitrogen (NH₃-N). Additional potential pollutants are unknown as this is a new wastewater treatment plant. Domestic wastewater will be treated by activated sludge process with single stage nitrification.

RESUMEN DE LA SOLICITUD EN LENGUAJE SENCILLO PARA LAS SOLICITUDES DE PERMISOS TPDES O TLAP

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.

El Distrito de Gestión de Generation Park (CN604386060) y MRA Northeast, L.P. (CN606362754) propone operar Planta de Tratamiento de Aguas Residuales del Este del Distrito de Gestión de Generation Park (RN112166004), una instalación de tratamiento de aguas residuales domésticas. La instalación está ubicada en aproximadamente 1,400 pies al norte de la intersección de Lake Houston Parkway y Common Dock Drive, en Houston, Condado de Harris, Texas 77044. Esta solicitud es para un nuevo permiso para descargar un caudal promedio final de 2.800.000 galones por día de aguas residuales domésticas tratadas a través de un desagüe en una serie de cuencas de detención y, en última instancia, en la cuenca del río San Jacinto.

Se espera que las descargas de la instalación contengan Demanda bioquímica de oxígeno carbonoso (5-días)(CBOD₅), sólidos suspendidos totales (TSS) y nitrógeno amoniacal (NH₃-N). Se desconocen otros posibles contaminantes ya que se trata de una nueva planta de tratamiento de aguas residuales.. Aguas residuales domésticas. estará tratado por roceso de lodos activados con nitrificación en una sola etapa.

ATTACHMENT NO. 3

PUBLIC INVOLVEMENT PLAN FORM



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

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

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

Section 1. Preliminary Screening

New Permit or Registration Application

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

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

Section 2. Secondary Screening

Requires public notice,

Considered to have significant public interest, and

Located within any of the following geographical locations:

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

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

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

Section 3. Application Information

Type of Application (check all that apply):

Air Initial Federal Amendment Standard Permit Title V
Waste Municipal Solid Waste Industrial and Hazardous Waste Scrap Tire
Radioactive Material Licensing Underground Injection Control

Water Quality

Texas Pollutant Discharge Elimination System (TPDES)
Texas Land Application Permit (TLAP)
State Only Concentrated Animal Feeding Operation (CAFO)
Water Treatment Plant Residuals Disposal Permit
Class B Biosolids Land Application Permit
Domestic Septage Land Application Registration

Water Rights New Permit

New Appropriation of Water
New or existing reservoir

Amendment to an Existing Water Right

Add a New Appropriation of Water
Add a New or Existing Reservoir
Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

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

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

(City)

(County)

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.

City

County

Census Tract

- (a) Percent of people over 25 years of age who at least graduated from high school
- (b) Per capita income for population near the specified location
- (c) Percent of minority population and percent of population by race within the specified location
- (d) Percent of Linguistically Isolated Households by language within the specified location
- (e) Languages commonly spoken in area by percentage
- (f) Community and/or Stakeholder Groups
- (g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

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

Yes No

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

Yes No

If Yes, please describe.

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

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

Yes No

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

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

Publish in alternative language newspaper

Posted on Commissioner's Integrated Database Website

Mailed by TCEQ's Office of the Chief Clerk

Other (specify)

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

Yes No

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

Yes No

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

TCEQ Regional Office

TCEQ Central Office

Public Place (specify)

Section 7. Voluntary Submittal

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

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

Yes No

What types of notice will be provided?

Publish in alternative language newspaper

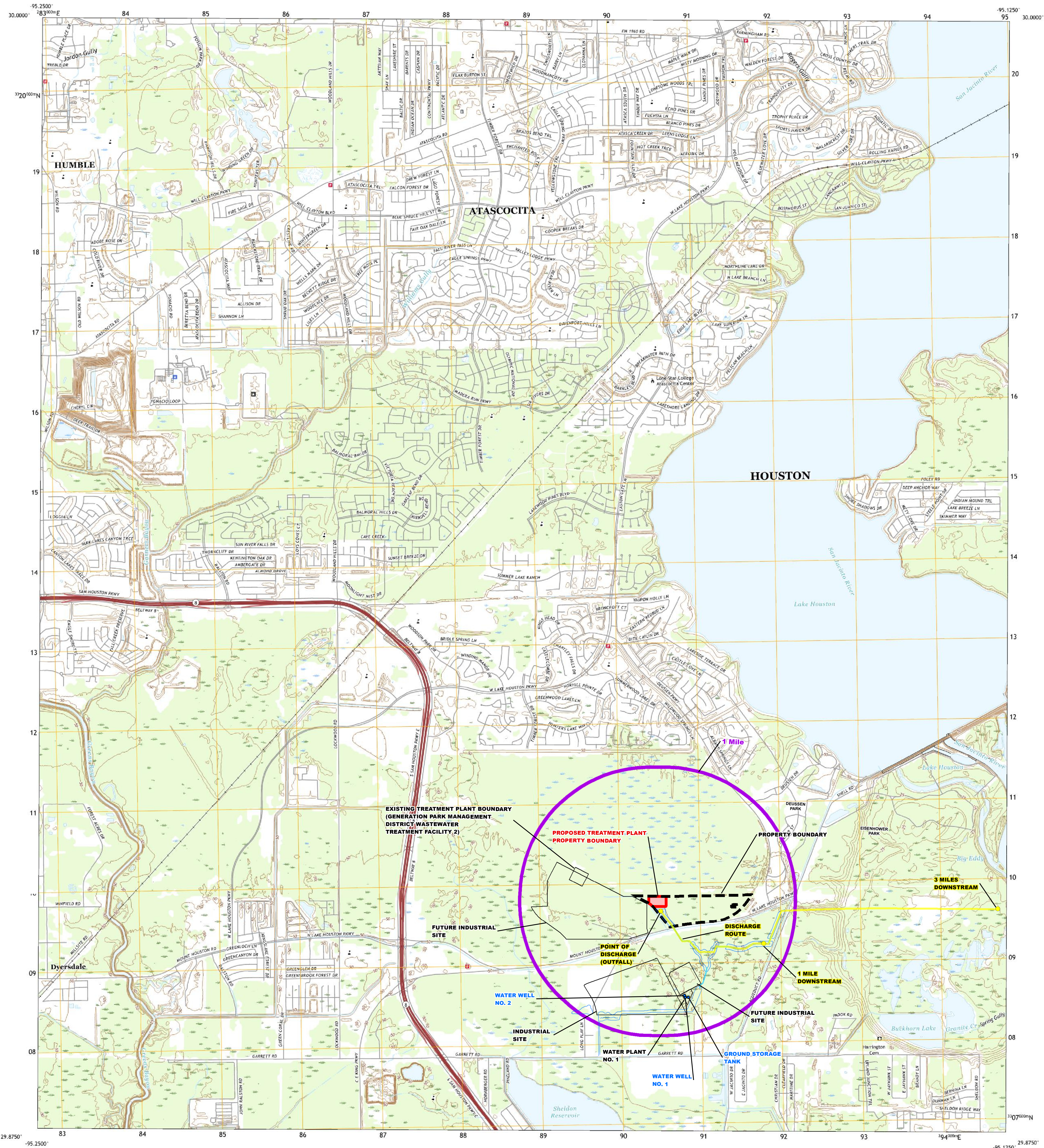
Posted on Commissioner's Integrated Database Website

Mailed by TCEQ's Office of the Chief Clerk

Other (specify)

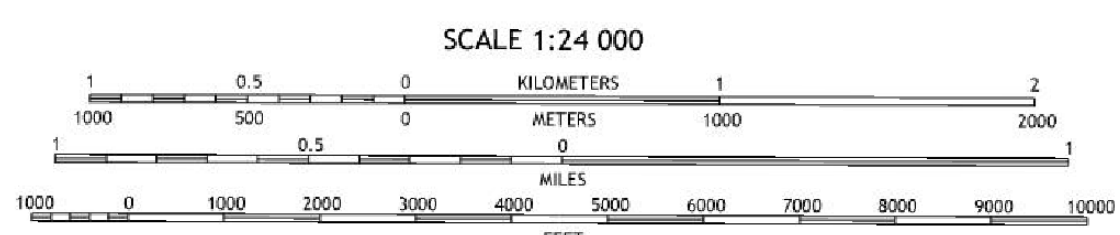
ATTACHMENT NO. 4

USGS TOPOGRAPHIC MAP



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 15R
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: N/AIP, September 2016 - November 2016
Roads: U.S. Census Bureau, 2015 - 2019
Names: National Hydrographic Database, 1979 - 2022
Hydrography: National Hydrographic Database, 2002 - 2018

UTM GRID AND 2019 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET
2019
40 MILS
20 MILS



ROAD CLASSIFICATION

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

ATTACHMENT NO. 5

COPY OF PAYMENT VOUCHER

Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number: 582EA000653750
Date: 02/21/2025 10:21 AM
Payment Method: CC - Authorization 0000021420
ePay Actor: ANNMARIE BURNS
Actor Email: dgillamac@idseg.com
IP: 216.201.136.178
TCEQ Amount: \$2,050.00
Texas.gov Price: \$2,096.38*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name: ANNMARIE BURNS
Company: IDS ENGINEERING GROUP
Address: 13430 NORTHWEST FREEWAY, HOUSTON, TX 77040
Phone: 713-462-3178

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
751697	WW PERMIT - FACILITY WITH FLOW >= 1.0 MGD - NEW AND MAJOR AMENDMENTS		\$2,000.00
751698	30 TAC 305.53B WQ NOTIFICATION FEE		\$50.00
TCEQ Amount:			\$2,050.00

[ePay Again](#)[Exit ePay](#)

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

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: Harris County Appraisal District
- E. As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?
- ☐ Yes ☒ No

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

Click to enter text.

Section 2. Original Photographs (Instructions Page 38)

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

- ☒ At least one original photograph of the new or expanded treatment unit location
- ☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☐ At least one photograph of the existing/proposed effluent disposal site
- ☒ A plot plan or map showing the location and direction of each photograph

Section 3. Buffer Zone Map (Instructions Page 38)

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

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

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

- ☒ Ownership
- ☒ Restrictive easement
- ☐ Nuisance odor control
- ☐ Variance

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

- ☒ Yes ☐ No

DOMESTIC WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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

Attachment: See Attachment No. 9

ATTACHMENT NO. 7

ORIGINAL PHOTOGRAPHS WITH MAP

Generation Park Management District East Wastewater Treatment Plant

Domestic Administrative Report 1.1 – Section 2 Original Photographs

- Photograph of new treatment unit location:
Area is currently wooded and is not yet cleared.

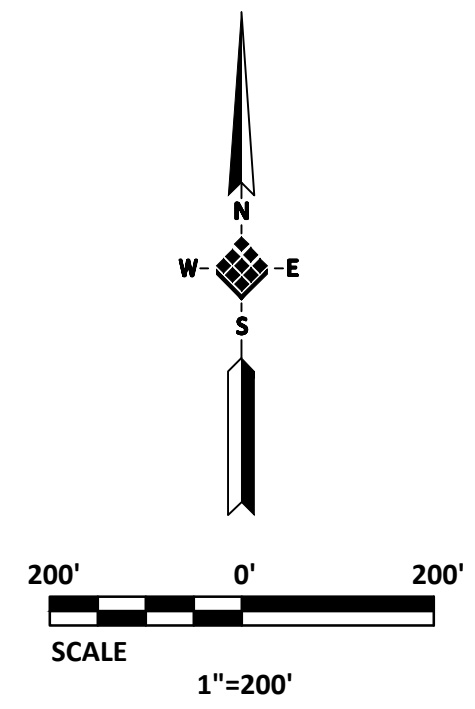
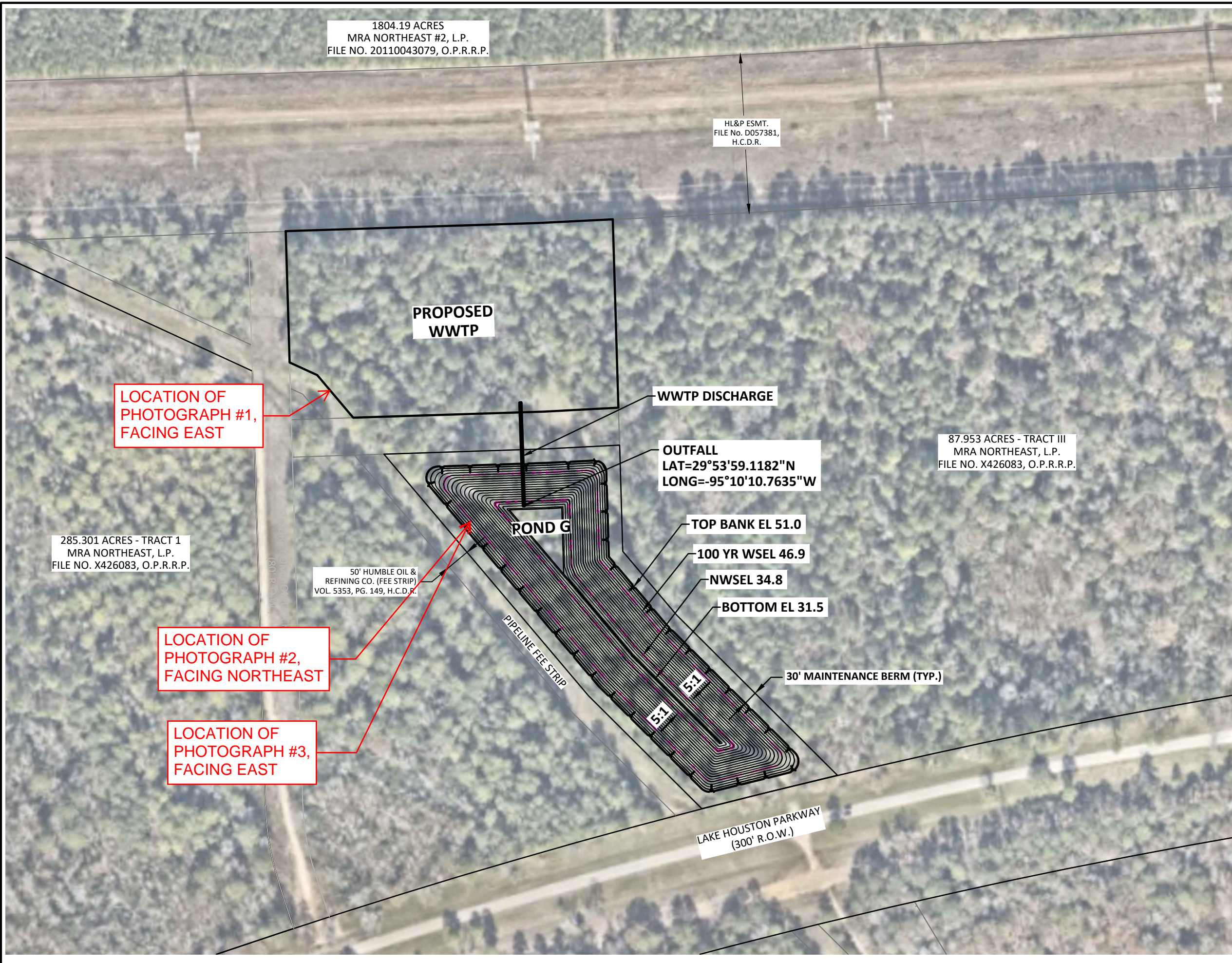


- Photographs of proposed discharge point:

Area is currently wooded and is not yet cleared. Effluent will discharge into detention pond, which has not yet been excavated.



\\idseg.com\fs\Projects\1300\133901204 TO 143 Generation Park East\CAD\Exhibits\2025-02-10 OUTFALL AERIAL\GP EAST WWTP OUTFALL DETN POND G.dwg [11x17] Plotted Feb 10, 2025 at 9:07am by tbradshaw (Last Saved by: tbradshaw)



**GP EAST WWTP
OUTFALL AERIAL
DATE: 2/10/25
DATE: 1" = 200'**

ATTACHMENT NO. 8

BUFFER ZONE MAP

1804.19 ACRES
MRA NORTHEAST #2, L.P.
FILE NO. 20110043079, O.P.R.R.P.



0' 200'

HL&P ESMT.
FILE No. D057381,
H.C.D.R.

150' BUFFER

150'

THE EASEMENT RECORDED UNDER
D057381 PROHIBITS STRUCTURES

96'

98'

150'

PHASE 2 SBRs

ULTIMATE SBRs

PHASE 1 FACILITIES

ULTIMATE DIGESTERS

PROPOSED WWTP

DISINFECTION

96'

96'

110'

87.953 ACRES - TRACT III
MRA NORTHEAST, L.P.
FILE NO. X426083, O.P.R.R.P.


WWTP BOUNDARY


DEED RECORDED UNDER VOL.
5353, PG. 149 LIMITS THE FEE
STRIP TO PIPELINE PURPOSES

285.301 ACRES - TRACT 1
MRA NORTHEAST, L.P.
FILE NO. X426083, O.P.R.R.P.

50' HUMBLE OIL &
REFINING CO. (FEE STRIP)
VOL. 5353, PG. 149, H.C.D.R.

FUTURE DETENTION
POND G

 BUFFER BY RESTRICTIVE
EASEMENT

 BUFFER BY OWNERSHIP
BY CO-APPLICANT

	IDS Engineering Group	13430 NW. Freeway Suite 700 Houston, Tx. 77040 713.462.3178 TXEng Firm 2726 TXSurv Firm 30310790
	GP EAST WWTP BUFFER ZONE EXHIBIT	
	DATE: 2/24/2025	SCALE: 1" = 200'

ATTACHMENT NO. 9

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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: Generation Park Management District

Permit No. WQ00 _____

EPA ID No. TX _____

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

Approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive in Harris County, TX 77044.

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: Vernon H. Webb, II

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

Title: District Engineer

Mailing Address: 13430 Northwest Freeway, Suite 700

City, State, Zip Code: Houston, TX 77040

Phone No.: (713) 462-3178 Ext.:

Fax No.:

E-mail Address: vwebb@idseg.com

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

N/A

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

Effluent will discharge to an unnamed detention basin, thence to storm sewer, thence to a series of unnamed detention basins and channels, thence to an unnamed tributary, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto 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):

Construction of the wastewater treatment plant will include grading of the site, installation of utilities, site paving, equipment, and treatment basins. Excavation depth will not exceed approximately 20 feet. Construction, including clearing, will impact approximately 5.5 acres.

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

The site is currently wooded. There is one cleared area which was previously used for oil and gas exploration.

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:

There are no existing buildings or structures.

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

The site was previously owned by the King Cattle & Timber Company, and was also used for oil and gas activities.



DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

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

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

Water Quality Permit Payment Submittal Form (Page 19) ☐ Yes
*(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)
 TCEQ ePay Voucher Receipt is included, see Attachment No. 5*

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

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

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

Things to Know:

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

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

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

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

Plain Language Summary ☒ Yes



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

Section 1. Permitted or Proposed Flows (Instructions Page 42)

A. Existing/Interim I Phase

Design Flow (MGD): 0.12

2-Hr Peak Flow (MGD): 0.48

Estimated construction start date: February 2026

Estimated waste disposal start date: September 2026

B. Interim II Phase

Design Flow (MGD): 1.05

2-Hr Peak Flow (MGD): 4.2

Estimated construction start date: February 2027

Estimated waste disposal start date: August 2029

C. Final Phase

Design Flow (MGD): 2.8

2-Hr Peak Flow (MGD): 11.2

Estimated construction start date: January 2030

Estimated waste disposal start date: June 2032

D. Current Operating Phase

Provide the startup date of the facility: N/A

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.**

See Attachment No. 10

B. Treatment Units

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

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
See Attachment No. 11		

C. Process Flow Diagram

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

Attachment: See Attachment No. 12

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

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

- Latitude: 29° 53' 59.12" N
- Longitude: -95° 10' 10.76" W

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: See Attachment No. 13

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

This wastewater treatment plant will serve the east side of Generation Park Management District. The area is generally bounded by Beltway 8 and Sheldon Reservoir to the West, Summerwood to the North, Deussen Parkway and Aqueduct Road to the east, and Garrett Road to the South.

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
Generation Park East Collection System	Generation Park Management District	Publicly Owned	1675
		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.**

Click to enter text.

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 [Click to enter text.](#) or TXRNE [Click to enter text.](#)

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

☐ Yes ☐ No

3. Conditional exclusion

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

☐ Yes ☐ No

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

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.
[Click to enter text.](#)

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

1. Acceptance of sludge from other WWTPs

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

☐ Yes ☐ No

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

In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the sludge, and the design BOD₅ 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 BOD₅ concentration of the septic waste, and the design BOD₅ 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). **Water treatment facilities** discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

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

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

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD ₅ , mg/l					
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					
<i>E.coli</i> (CFU/100ml) freshwater					
Enterococci (CFU/100ml) saltwater					
Total Dissolved Solids, mg/l					
Electrical Conductivity, μ mohs/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: Inframark, LLC

Facility Operator's License Classification and Level: (Wastewater Operations Company)

Facility Operator's License Number: OC0000232

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 \geq 1 MGD
- ☐ Serves \geq 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: [Click to enter text.](#)

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	Bulk	60 metric tons (estimated per year)	Class B: PSRP Aerobic Digestion	Option 4: SOUR ≤ 1.5 mg O ₂ /hr/g total solids at 20C ($< 2\%$ solids)
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

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

D. Disposal site

Disposal site name: Mt Houston Road WWTP Sludge Processing Site

TCEQ permit or registration number: WQ0005023000

County where disposal site is located: Harris

E. Transportation method

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

Name of the hauler: Magna Flow Environmental

Hauler registration number: 21484

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	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Marketing and Distribution of Biosolids	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sludge Surface Disposal or Sludge Monofill	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Temporary storage in sludge lagoons	<input type="checkbox"/> Yes	<input type="checkbox"/> No

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

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

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

A. Location information

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

- Original General Highway (County) Map:
Attachment: [Click to enter text.](#)
- USDA Natural Resources Conservation Service Soil Map:
Attachment: [Click to enter text.](#)
- Federal Emergency Management Map:
Attachment: [Click to enter text.](#)
- Site map:
Attachment: [Click to enter text.](#)

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

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

Attachment: [Click to enter text.](#)

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

[Click to enter text.](#)

B. Temporary storage information

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

Nitrate Nitrogen, mg/kg: [Click to enter text.](#)

Total Kjeldahl Nitrogen, mg/kg: [Click to enter text.](#)

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

Phosphorus, mg/kg: [Click to enter text.](#)

Potassium, mg/kg: [Click to enter text.](#)

pH, standard units: [Click to enter text.](#)

Ammonia Nitrogen mg/kg: [Click to enter text.](#)

Arsenic: [Click to enter text.](#)

Cadmium: [Click to enter text.](#)

Chromium: [Click to enter text.](#)

Copper: [Click to enter text.](#)

Lead: [Click to enter text.](#)

Mercury: [Click to enter text.](#)

Molybdenum: [Click to enter text.](#)

Nickel: [Click to enter text.](#)

Selenium: [Click to enter text.](#)

Zinc: [Click to enter text.](#)

Total PCBs: [Click to enter text.](#)

Provide the following information:

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

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

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

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec?

☐ Yes ☐ No

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

[Click to enter text.](#)

D. Site development plan

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

[Click to enter text.](#)

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)
Attachment: [Click to enter text.](#)
- Copy of the closure plan
Attachment: [Click to enter text.](#)
- Copy of deed recordation for the site
Attachment: [Click to enter text.](#)
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons
Attachment: [Click to enter text.](#)
- Description of the method of controlling infiltration of groundwater and surface water from entering the site
Attachment: [Click to enter text.](#)
- Procedures to prevent the occurrence of nuisance conditions
Attachment: [Click to enter text.](#)

E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: [Click to enter text.](#)

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 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:

Click to enter text.

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

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

☐ Yes ☒ No

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

Click to enter text.

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

A. RCRA hazardous wastes

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

☐ Yes ☒ No

B. Remediation activity wastewater

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

☐ Yes ☒ No

C. Details about wastes received

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

Attachment: [Click to enter text.](#)

Section 14. Laboratory Accreditation (Instructions Page 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: N/A

Title: N/A

Signature: _____

Date: _____

ATTACHMENT NO. 10

TREATMENT PROCESS DESCRIPTION

Generation Park Management District

East Wastewater Treatment Plant

Domestic Technical Report 1.0 – Section 2. Treatment Process Description

Current Operating Phase

All phases are proposed; plant is not currently operating.

Proposed Interim Phase I (0.12 MGD)

The proposed Interim Phase I plant is a steel plant, designed to treat 0.12 MGD average daily flow with a 0.48 MGD peak flow (4Q). The treatment process is activated sludge process with complete mix single stage nitrification.

Wastewater will be pumped through an influent force main to the headworks, which will have a manual bar screen. The effluent from the screens will proceed to two (2) aeration basins for biological treatment. From the aeration basins, the mixed liquor will flow to a single clarifier for settling.

The settled sludge from the clarifier will either be returned to the aeration basins as Recycled Activated Sludge (RAS) or wasted into two (2) digesters as Waste Activated Sludge (WAS). Each digester has aerators and airlift decanters to further thicken the sludge and return the supernatant back to the aeration basins, while the sludge is periodically removed and wet hauled to another facility for further dewatering and disposal.

The settled final clarifier effluent will flow to a chlorine contact basin for disinfection. Finally, the disinfected effluent will be discharged into a man-made detention pond and ultimately into the San Jacinto River.

Proposed Interim Phase II (1.05 MGD)

The proposed Interim Stage II plant will include four (4) of the nine (9) ultimate sequencing batch reactors (SBRs) and repurpose the basins from the steel plant as digesters. It will be designed to treat 1.05 MGD average daily flow and 4.2 MGD peak flow, with one SBR out of service. Each SBR treats 350,000 gallons per day.

The wastewater influent will flow into a headworks structure and then to the SBRs for biological treatment and settling using an activated sludge process with single stage nitrification. Fine bubble diffusers and/or jet aerators will be used for aeration and decanters will be used for removing the clarified supernatant effluent. Positive displacement blowers will supply air to the SBR basins.

The proposed Interim Phase II will also include two (2) chlorine contact basins, for final disinfection of the effluent. The disinfected effluent will then be de-chlorinated and discharged into a man-made detention pond and ultimately into the San Jacinto River.

Excess sludge from the SBRs will continue to digesters, which will contain a decant mechanism for thickening the sludge. The steel aeration basins and digesters from the Proposed Stage I package plant will be converted as necessary and repurposed as digesters in this phase. The decanted digester supernatant will be returned to the SBR treatment basins, and thickened sludge will be periodically removed and wet hauled to another facility for further dewatering and disposal.

Proposed Ultimate Phase (2.8 MGD)

In the proposed ultimate phase, five (5) additional concrete sequencing batch reactors (SBRs) will be added to the four (4) SBRs proposed in the 1.05 MGD Interim II phase, for a total of nine (9) SBRs. The ultimate plant will be designed to treat 2.8 MGD average daily flow and 11.2 MGD peak flow, with one SBR out of service. Each SBR treats 350,000 gallons per day.

The wastewater influent will flow into a headworks structure and then to the SBRs for biological treatment and settling using an activated sludge process with single stage nitrification. Fine bubble diffusers and/or jet aerators will be used for aeration and decanters will be used for removing the clarified supernatant effluent. Positive displacement blowers will supply air to the SBR basins.

The proposed ultimate phase will include four (4) chlorine contact basins, for final disinfection of the effluent. The disinfected effluent will then be de-chlorinated and discharged into a man-made detention pond and ultimately into the San Jacinto River.

Excess sludge from the SBRs will continue to digesters, which will contain a decant mechanism for thickening the sludge. The proposed ultimate phase will include four (4) digesters. The decanted digester supernatant will be returned to the SBR treatment basins, and thickened sludge will be periodically removed and wet hauled to another facility for further dewatering and disposal.

ATTACHMENT NO. 11

TREATMENT UNITS

Generation Park Management District

East Wastewater Treatment Plant

Domestic Technical Report 1.0 – Table 1.0(1) Treatment Units

<u>Treatment Unit Type</u>	<u>Number of Units</u>	<u>Dimensions (L X W X D)</u>
Interim I Phase – 0.12 MGD		
Aeration Basins	2	40 ft L X 12 ft W X 10.45 ft SWD
Clarifier	1	35 ft Diameter X 10 ft SWD
Chlorine Contact Basin	1	20 ft L X 12 ft W X 8.58 ft SWD
Aerobic Digesters	2	20 ft L X 12 ft W X 10.5 ft SWD
Interim II Phase – 1.05 MGD		
SBR Basins	4	75 ft L X 25 ft W X 24 SWD
Chlorine Basins	2	58 ft L X 8 ft W X 11.5 SWD
Aerobic Digesters	2	60 ft L X 12 ft W X 10.5 SWD
Ultimate Phase – 2.8 MGD		
SBR Basins	9	75 ft L X 25 ft W X 24 SWD
Chlorine Basins	4	58 ft L X 8 ft W X 11.5 SWD
Aerobic Digesters	4	25 ft L X 40 ft W X 12.5 SWD

SWD – Side Wall Depth

L – Length

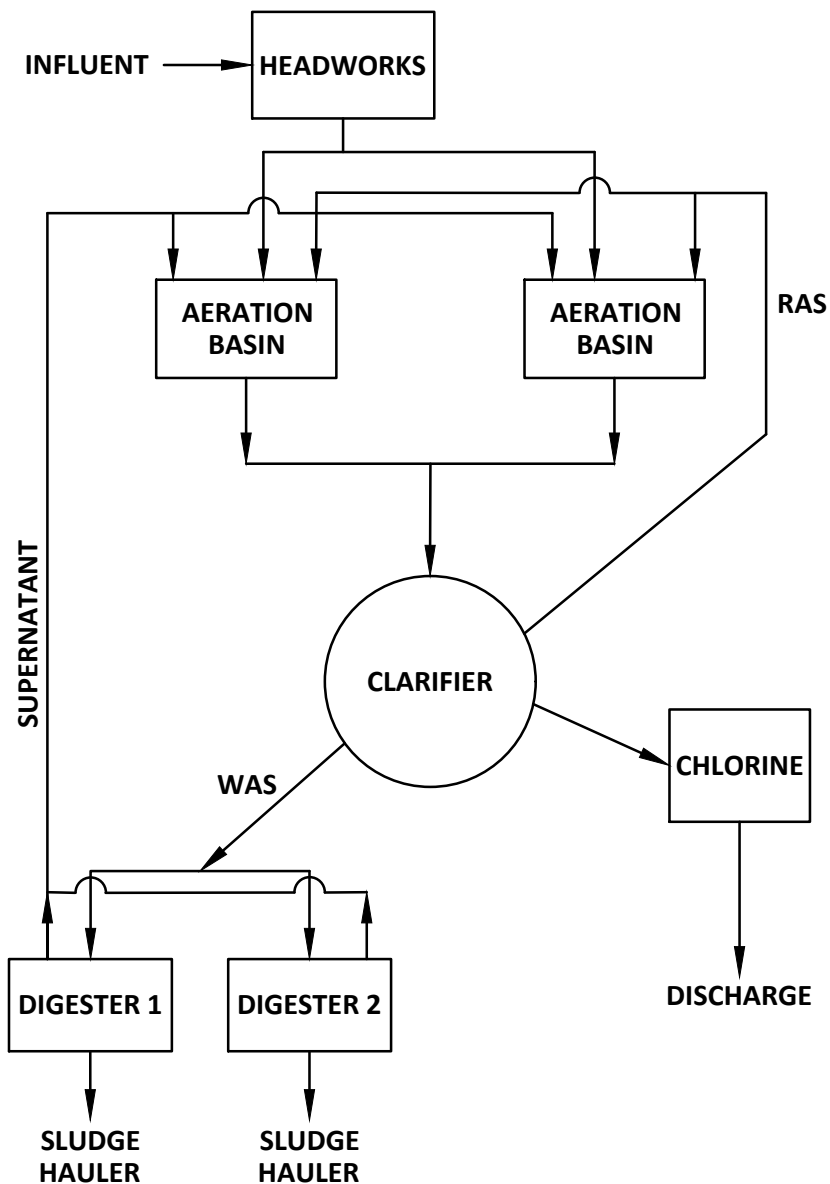
D – Depth

W – Width

ATTACHMENT NO. 12

PROCESS FLOW DIAGRAMS

**0.12 MGD
PROPOSED INTERIM I PHASE
GENERATION PARK
MANAGEMENT DISTRICT**



GENERATION PARK
A McCord Development Property



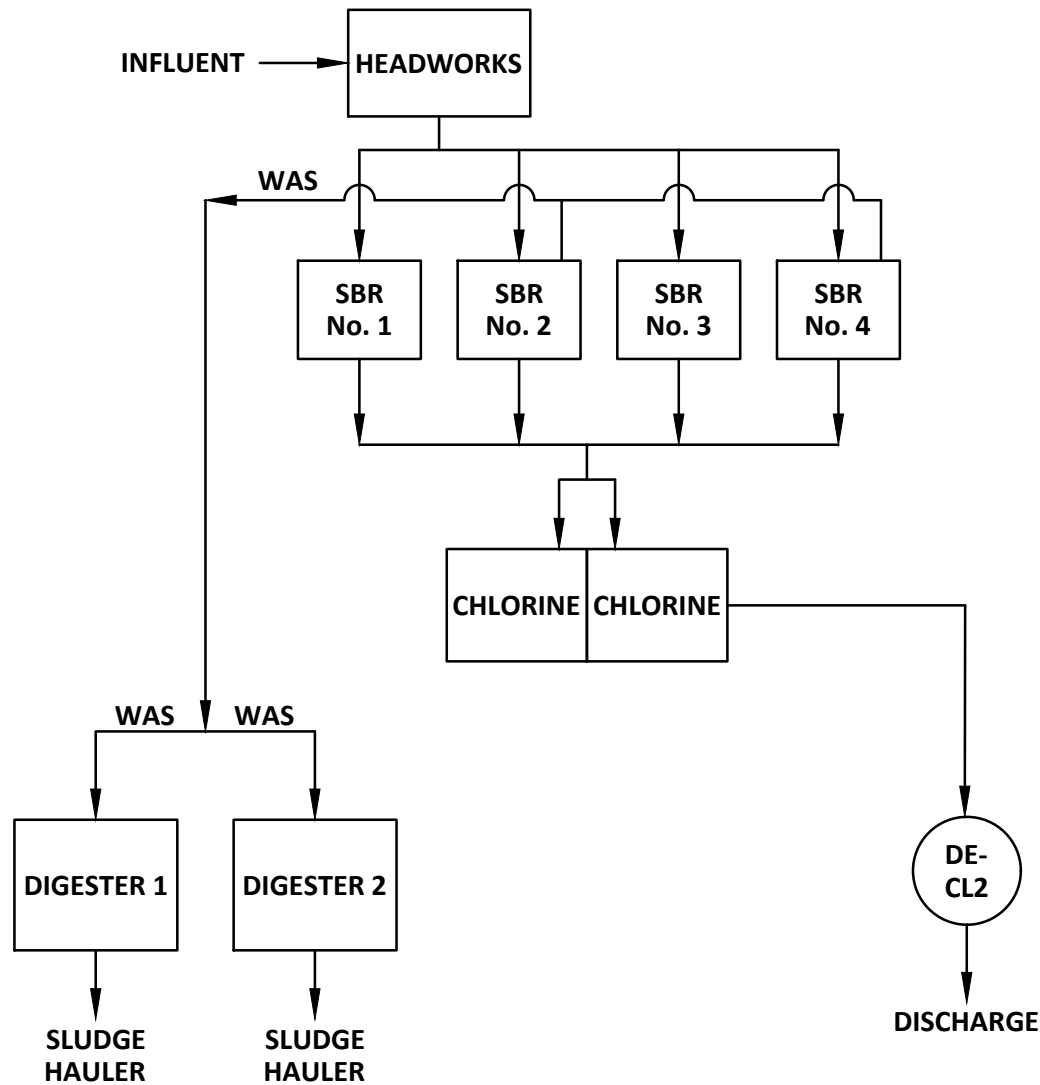
13430 NW. Freeway
Suite 700
Houston, Tx. 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

PROCESS FLOW DIAGRAM 1

DATE: 1/6/2025

SCALE: N.T.S.

**1.05 MGD
PROPOSED INTERIM II PHASE
GENERATION PARK
MANAGEMENT DISTRICT**



GENERATION PARK
A McCord Development Property



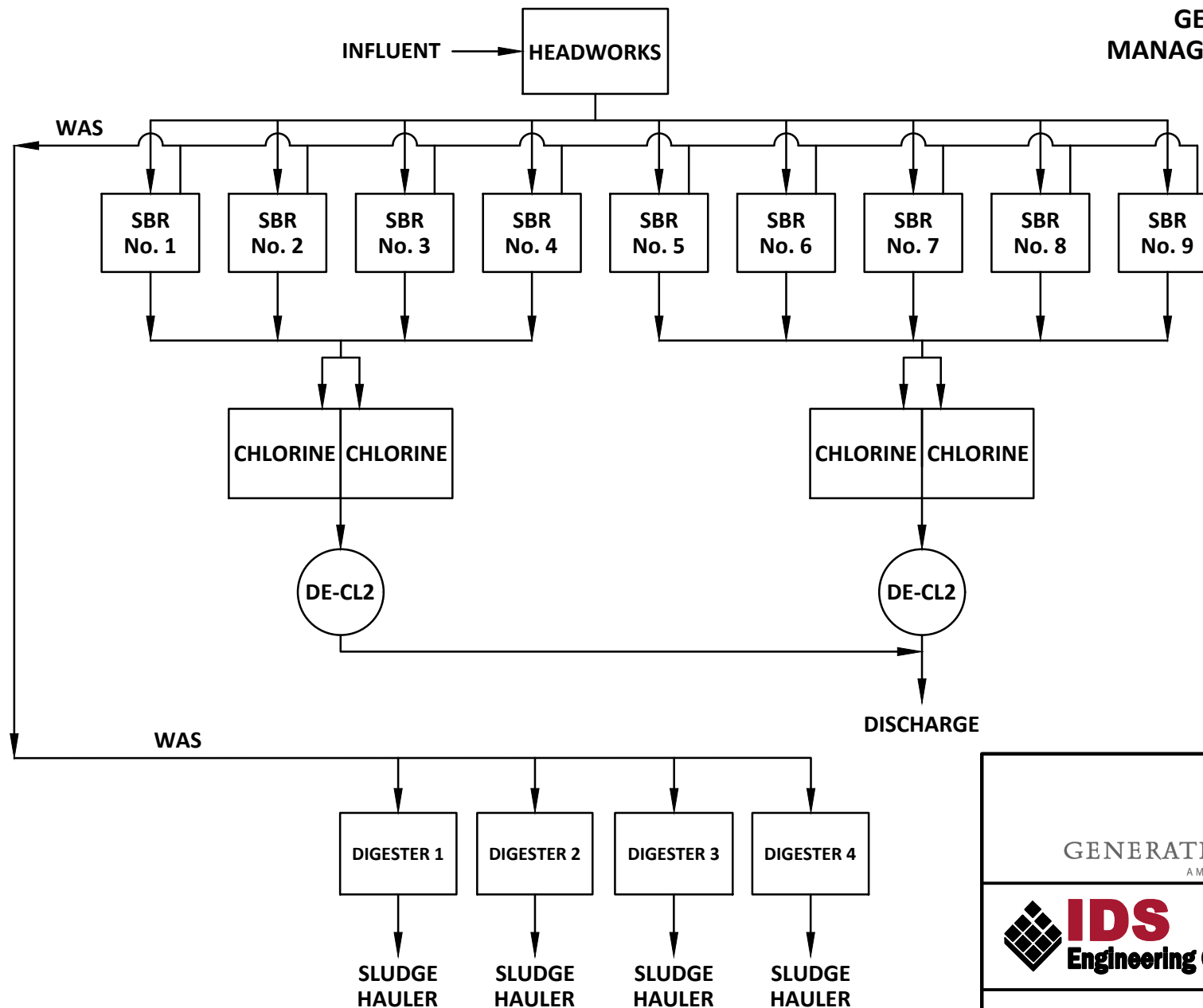
13430 NW. Freeway
Suite 700
Houston, Tx. 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700



PROCESS FLOW DIAGRAM 2

DATE: 1/6/2025

SCALE: N.T.S.

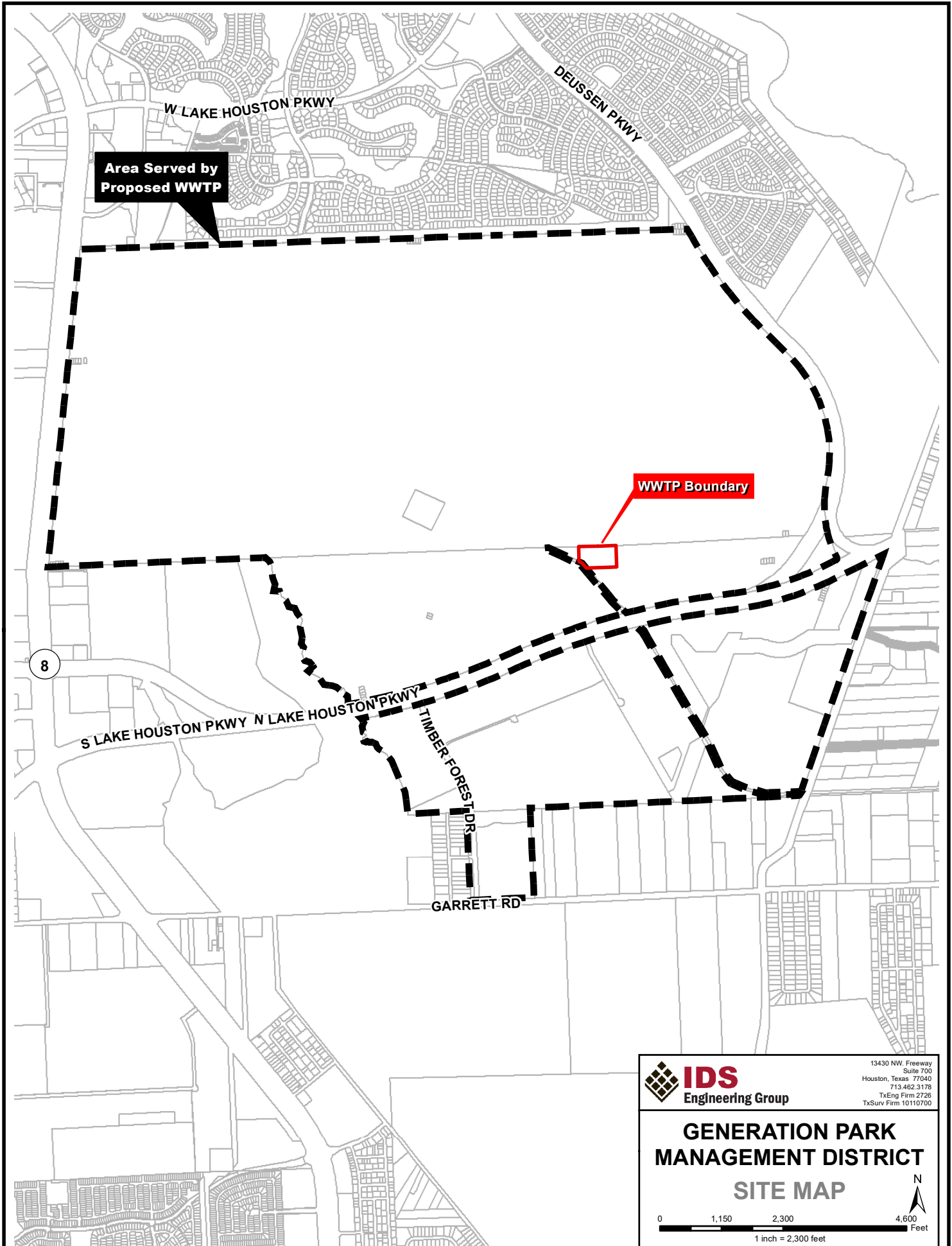
**2.8 MGD
FINAL PHASE
GENERATION PARK
MANAGEMENT DISTRICT**



 GENERATION PARK <small>A McCord Development Property</small>	
	13430 NW. Freeway Suite 700 Houston, Tx. 77040 713.462.3178 <small>TxEng Firm 2726 TxSurv Firm 10110700</small>
PROCESS FLOW DIAGRAM 3	
DATE: 2/11/2025	SCALE: N.T.S.

ATTACHMENT NO. 13

SITE MAP



IDS
Engineering Group

13430 NW Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

**GENERATION PARK
MANAGEMENT DISTRICT
SITE MAP**

0 1,150 2,300 4,600
Feet
1 inch = 2,300 feet

N

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.

See Attachment No. 14

B. Regionalization of facilities

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

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

1. *Municipally incorporated areas*

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

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

☐ Yes ☒ No ☐ Not Applicable

If yes, within the city limits of: [Click to enter text.](#)

If yes, attach correspondence from the city.

Attachment: [Click to enter text.](#)

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

Attachment: [Click to enter text.](#)

2. *Utility CCN areas*

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

☐ Yes ☒ No

¹ <https://www.tceq.texas.gov/permitting/wastewater/tceq-regionalization-for-wastewater>

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

Attachment: [Click to enter text.](#)

3. *Nearby WWTPs or collection systems*

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

☒ Yes ☐ No

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

Attachment: [See Attachment No. 15](#)

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: [See Attachment No. 15](#)

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): [Click to enter text.](#)

Average Influent Organic Strength or BOD₅ Concentration in mg/l: [Click to enter text.](#)

Average Influent Loading (lbs/day = total average flow X average BOD₅ conc. X 8.34): [Click to enter text.](#)

Provide the source of the average organic strength or BOD₅ concentration.

[Click to enter text.](#)

B. Proposed organic loading

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

Table 1.1(1) – Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality		
Subdivision		
Trailer park - transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park, overnight use		
Recreational park, day use		
Office building or factory	1.2 MGD	300 mg/L
Motel		
Restaurant		
Hospital		
Nursing home		
Other	1.6 MGD	300-350 mg/L
TOTAL FLOW from all sources	2.8 MGD	
AVERAGE BOD ₅ from all sources		approx. 315 mg/L

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: 10 mg/L

Total Suspended Solids, mg/l: 15 mg/L

Ammonia Nitrogen, mg/l: 3 mg/L

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4.0 mg/L

Other: E. coli, colony forming units per 100mL: 126

B. Interim II Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15 mg/L

Ammonia Nitrogen, mg/l: 3 mg/L

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4.0 mg/L

Other: E. coli, colony forming units per 100mL: 126

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15 mg/L

Ammonia Nitrogen, mg/l: 3 mg/L

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4.0 mg/L

Other: E. coli, colony forming units per 100mL: 126

D. Disinfection Method

Identify the proposed method of disinfection.

☒ Chlorine: 1.0 to 4.0 mg/l after 20 minutes detention time at peak flow

Dechlorination process: Click to enter text.

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

☒ Other: Sodium Bisulfite

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: See Attachment No. 16

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.

Click to enter text.

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

☐ Yes ☒ No

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

☐ Yes ☐ No

If **yes**, provide the permit number: [Click to enter text.](#)

If **no**, provide the approximate date you anticipate submitting your application to the Corps: [Click to enter text.](#)

B. Wind rose

Attach a wind rose: [See Attachment No. 18](#)

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)**: [Click to enter text.](#)

B. Sludge processing authorization

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

- ☐ Sludge Composting
- ☐ Marketing and Distribution of sludge
- ☐ Sludge Surface Disposal or Sludge Monofill

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

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

Attach a solids management plan to the application.

Attachment: [See Attachment No. 19](#)

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.

ATTACHMENT NO. 14

JUSTIFICATION OF PERMIT NEED

Generation Park Management District

East Wastewater Treatment Plant

Domestic Technical Report 1.1 – Section 1.A. Justification of permit need

Generation Park Management District currently has two permitted wastewater treatment facilities with permit numbers WQ0014625001 and WQ0015015001. The Generation Park Management District Wastewater Treatment Facility 2 (GPMD WWTF2) (WQ0015015001) has not been placed into operation. It is proposed that the new facility proposed in this permit application will take the place of GPMD WWTF2 and all flow that would have been treated at GPMD WWTF2 will be treated at this new site.

The ultimate service area for this facility will consist of approximately 2,900 acres of mixed-use development and currently contains a 1.4 million square foot warehouse facility. This facility is currently not occupied but will require 55,000 GPD of wastewater capacity after its estimated occupancy date of Summer 2027. The developer is in the process of selling two additional industrial sites, one of which requires 7,000 GPD of wastewater capacity, expected in late 2026. The proposed Interim Phase I WWTP (0.12 MGD) would be required to treat these flows.

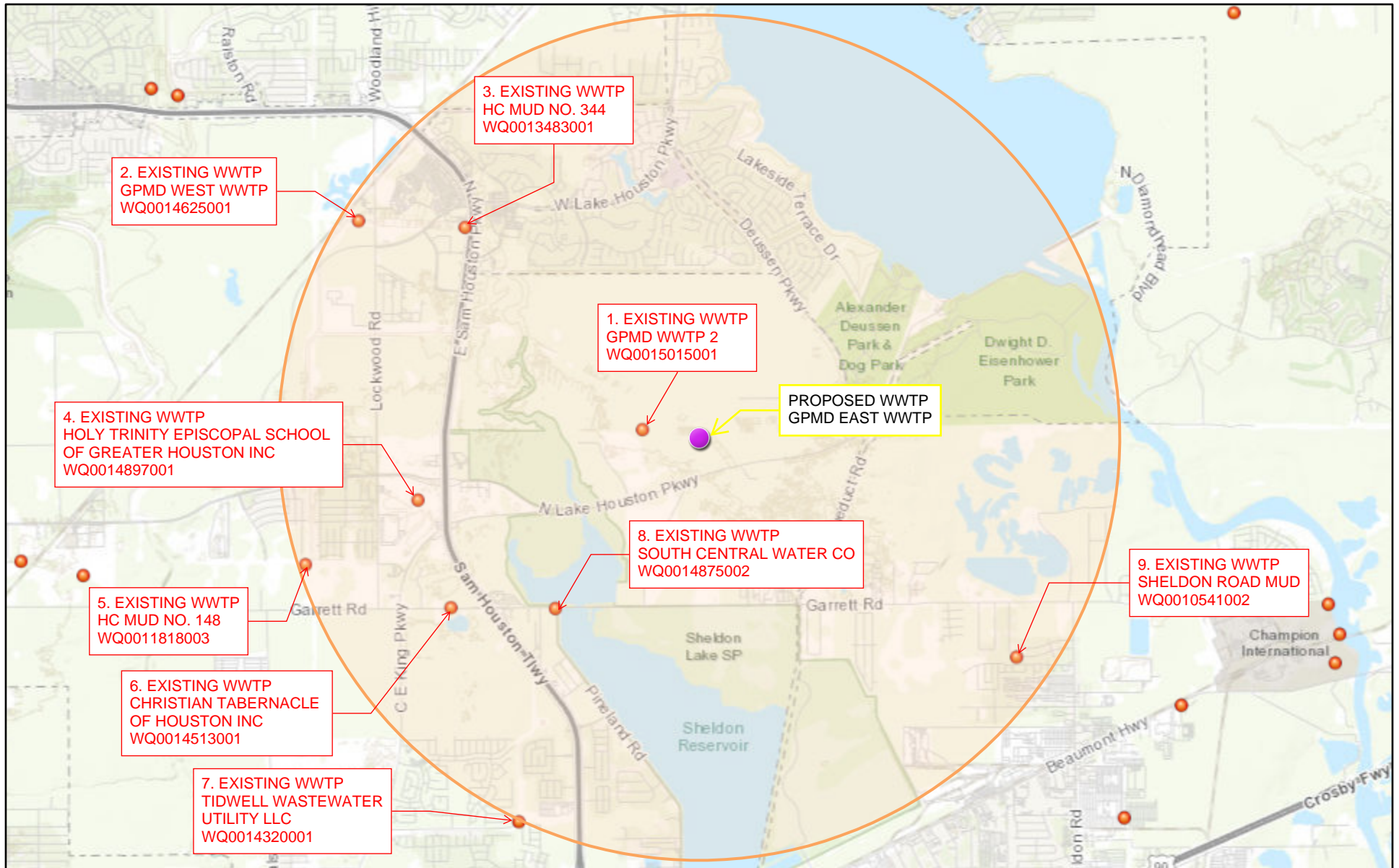
The other industrial site is expected to require 800,000 GPD of wastewater capacity by Q2 of 2029. The proposed Interim Phase II WWTP (1.05 MGD) will treat these flows in addition to the flows described in Phase I.

The second industrial site will require an additional 350,000 GPD by Summer 2032 pushing total flows to 1.2 MGD. Additional land within the District is also being offered for sale which we estimate will increase the required WWTP capacity to 2.8 MGD.

ATTACHMENT NO. 15

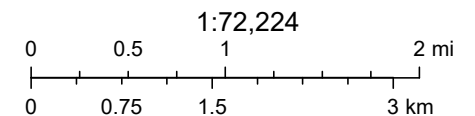
NEARBY WWTPS MAP & PROOF OF MAILING REQUEST FOR SERVICE

Nearby Wastewater Treatment Facilities (3 miles)



2/11/2025, 9:22:39 AM

● Wastewater Outfalls



TCEQ, City of Houston, HPB, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA

Web AppBuilder for ArcGIS

City of Houston, HPB, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA | TCEQ |

1. Permittee Name – Generation Park Management District (Wastewater Treatment Facility 2)

Permit No. – WQ0015015001

Same permittee as proposed Wastewater Treatment Plant. This WWTP & Permit will be abandoned if proposed permit is approved and new WWTP is built.

2. Permittee Name – Generation Park Management District (West Wastewater Treatment Plant)

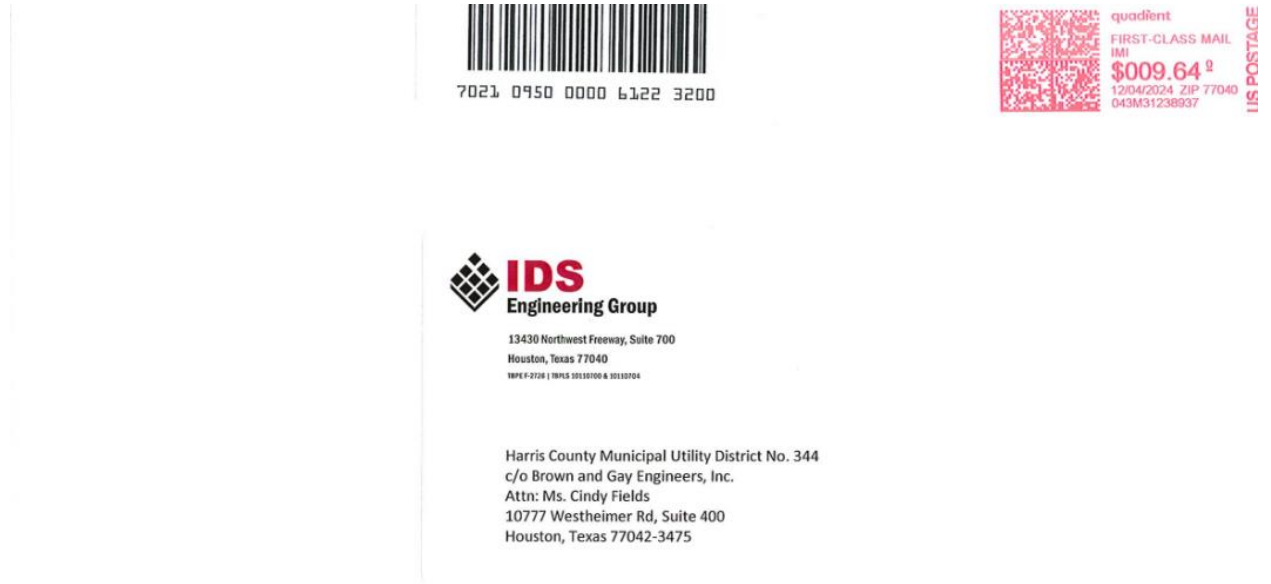
Permit No. – WQ0014625001

Same permittee as proposed Wastewater Treatment Plant. This plant was designed to serve the current and future needs of the west side of Generation Park Management District.

3. Permittee Name – Harris County Municipal Utility District No. 344

Permit No. – WQ0013483001

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page



December 3, 2024

Harris County Municipal Utility District No. 344
c/o Brown and Gay Engineers, Inc.
Attn: Ms. Cindy Fields
10777 Westheimer Rd, Suite 400
Houston, TX 77042-3475

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

AnnMarie Burns

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: 12/10/24
Name of Permittee: HCMUD344
Address: _____
Capacity Available Now (Yes/No?) 8
Willing to Expand Plant (Yes/No?) _____
Date Available: _____

Terms (if capacity available): _____
Name of Person Responding: CINDY FIELDS
Title: ENGINEER
Telephone: 713-488-8343
Fax: _____

\\DSEG.COM\FSE\PROJECTS\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (HCMUD 344).DOCX

4. Permittee Name – Holy Trinity Episcopal School of Greater Houston Inc

Permit No. – WQ0014897001

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page



December 3, 2024

Holy Trinity Episcopal School
11810 Lockwood Road
Houston, Texas 77044

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

A handwritten signature in blue ink that reads "AnnMarie G. Burns".

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: _____
Name of Permittee: _____
Address: _____

Capacity Available Now (Yes/No)? _____
Willing to Expand Plant (Yes/No)? _____
Date Available: _____

Terms (if capacity available): _____

Name of Person Responding: _____
Title: _____
Telephone: _____
Fax: _____

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (HOLY TRINITY EPISCOPAL SCHOOL).DOCX

No response received.

School no longer exists. See screenshot from website below (<https://hteshouston.org/>):



As of June 2023 Holy Trinity Episcopal School closed it's door to students. We are in the process of selling the property.

Student and Employment records requests can be placed by email or voicemail.

Email: info@hteshouston.org

Phone: 281-608-8252

Other requests will be forwarded to the responsible parties.

5. Permittee Name – Harris County Municipal Utility District No. 148

Permit No. – WQ0011818003

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page



December 3, 2024

Harris County Municipal Utility District No. 148
c/o Langford Engineering, Inc.
Attn: Mr. Craig Hajovsky
1080 W Sam Houston Pkwy N, Suite 200
Houston, Texas 77043-5014

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

A handwritten signature in blue ink that reads "AnnMarie Burns".

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: 1/15/2025
Name of Permittee: Harris County MUD No. 148
Address: 2929 ALLEN PARKWAY, SUITE 3150
HOUSTON, TEXAS 77019
Capacity Available Now (Yes/No)? No
Willing to Expand Plant (Yes/No)? No
Date Available: N/A

Terms (if capacity available): N/A

Name of Person Responding: Craig A. Hajovsky, P.E.
Title: Engineer for the District
Telephone: 713-461-3530
Fax: _____

\\\\IDSEG.COM\\FS\\PROJECTS\\1300\\133901204 TO 143 GENERATION PARK EAST\\ENG-PM\\CORRES\\ATTACHMENT CAPACITY INQUIRY LETTERS (HC MUD 148).DOCX

6. Permittee Name – Christian Tabernacle of Houston Inc

Permit No. – WQ0014513001

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page for copy of request. No response received.



December 3, 2024

Inspire Church (Christian Tabernacle of Houston)
11727 E. Sam Houston Pkwy N.
Houston, Texas 77044

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

A handwritten signature in blue ink that reads "AnnMarie G. Burns".

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: _____
Name of Permittee: _____
Address: _____

Capacity Available Now (Yes/No)? _____
Willing to Expand Plant (Yes/No)? _____
Date Available: _____

Terms (if capacity available): _____

Name of Person Responding: _____
Title: _____
Telephone: _____
Fax: _____

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (CHRISTIAN TABERNACLE).DOCX

7. Permittee Name – Tidwell Wastewater Utility LLC

Permit No. – WQ0014320001

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page for copy of request. No response received.



December 3, 2024

Tidwell Wastewater Utility, LLC
Attn: Mr. Ron Sasson
6776 Southwest Freeway, Suite 350
Houston, Texas 77074

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

A handwritten signature in blue ink that reads 'AnnMarie G. Burns'.

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: _____
Name of Permittee: _____
Address: _____

Capacity Available Now (Yes/No)? _____
Willing to Expand Plant (Yes/No)? _____
Date Available: _____

Terms (if capacity available): _____

Name of Person Responding: _____
Title: _____
Telephone: _____
Fax: _____

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (TIDWELL WASTEWATER UTILITY LLC).DOCX

8. Permittee Name – South Central Water Co

Permit No. – WQ0014875002

Permit has been sold to: Undine Development

Proof of Mailing Request via Certified Mail: correspondence with Undine Development via email & phone call

Copy of Request & Correspondence Received: See next page



December 5, 2024

Undine Group, LLC
Attn: Mr. Jeff Goebel
17681 Telge Road
Cypress, Texas 77429

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

AnnMarie Burns

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: 12/16/24
Name of Permittee: Undine
Address: 17681 Telge Rd
Cypress TX 77429
Capacity Available Now (Yes/No)? NO
Willing to Expand Plant (Yes/No)? NO
Date Available: _____

Terms (if capacity available): _____
Name of Person Responding: Jeff Goebel
Title: Business Dev
Telephone: 713-724-9321
Fax: _____

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (SOUTH CENTRAL WATER CO UNDINE).DOCX

9. Permittee Name – Sheldon Road Municipal Utility District

Permit No. – WQ0010541002

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page



December 3, 2024

Sheldon Road Municipal Utility District
c/o HDR Engineering, Inc.
Attn: Mr. Ryan Nokelby
4828 Loop Central Dr., Suite 800
Houston, Texas 77081-2220

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

A handwritten signature in blue ink that reads "AnnMarie Burns".

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: 12/20/24
Name of Permittee: Sheldon Road MUD
Address: 9419 Lamkin Road,
Houston, Tx 77049
Capacity Available Now (Yes/~~No~~)?
Willing to Expand Plant (Yes/~~No~~)?
Date Available: N/A

Terms (if capacity available): N/A

Name of Person Responding: Ryan Nokelby, P.E.
Title: District Engineer
Telephone: 713-622-9264
Fax: 713-622-9265

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (SHELDON RD MUD).DOCX

ATTACHMENT NO. 16

DESIGN CALCULATIONS

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations

Design Parameters

Influent Flow Characteristics - The hydraulic design of the facility must ensure that the plant will operate under the most extreme conditions anticipated. The plant process and hydraulic design for this facility are as follows:

Average Design Flow	0.12 MGD	Influent BOD ₅	350 mg / l
	83 gpm	Influent BOD5	350 lbs / day
Peaking Factor	4	Influent TSS	250 mg / l
Peak Flow	0.48 MGD	Influent NH3-N	75 mg/L
	333 gpm		
Effluent Characteristics			
BOD ₅ S _e	10 mg/L		
TSS TSS _e	15 mg/L		
NH ₃ -N N _e	3 mg/L		

The calculations below are based on minimum TCEQ sizing parameters but may not reflect actual treatment unit dimensions.
 Values shown are the minimum that will be provided.

Aeration

Criteria	Value	Regulation Section
Maximum Organic Loading Rate (lbs BOD ₅ /day/1000 cu ft)	35	217.154(b)(Table F.1)
Reactor MLSSS Level at normal operating level (mg/l)	3000-5000	

Aeration Volume Required 10,008 cu. ft.

Volume Provided:

Length	40 ft
Width	12 ft
SWD	10.45 ft

Tanks 2

Volume Provided 10,032 cu. ft.

Effective Organic Loading 34.92 lbs BOD₅/day/1000 cu. ft.

Clarifier

Criteria	Value	Regulation Section
TCEQ Maximum Surface Loading (Qpk)	1200 gal/day/s.f. at peak flow	217.154(c)(Table F.2)
TCEQ Minimum Detention Time (Qpk)	1.8 hours at peak flow	217.154(c)(Table F.2)
TCEQ Maximum Weir Loading (Qpk)	30000 gal/day/ft	217.152(c)(4)
TCEQ Minimum Side Water Depth (SWD)	10 ft	217.152(g)(2)(A)/(B)
TCEQ Maximum Stilling Well Velocity	0.15 ft/sec	217.152(a)(4)

Surface Area Required Required 400 sq. ft.

Volume Required 4813 cu. ft.

Length of weir required 16 ft.

Volume Provided:

Diameter	35 ft
SWD	10.00 ft
# Tanks	1
Weir Diameter	33 ft

Surface Area Provided 962 sq. ft.

Volume Provided 9,621 cu. ft.

Weir length provided 104 ft.

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations

CHEMICAL (CHLORINE) DISINFECTION**Chlorination**

Minimum Cl ₂ Contact Time	20 minutes	<i>Regulation Section</i> 217.281(b)(1)
Chlorine basin volume required	6,667 gallons	
<u>Phase I</u>		
Length	20 ft	
Width	12 ft	
Depth @ design	8.58 ft	
Number of Basins	1	
Volume Provided	15,403 gallons	
Volume provided greater than or equal to required volume	YES	
TCEQ min. design Cl ₂ dose	8 mg / l	217.272(b)
Cylinder size	150 lbs	
Withdrawal factor	1 (Use 1.0 for 150 # cylinder and 8.0 for 2000 # cylinders)	217.273(a)(1)
Threshold Temperatures (Low Ambient Temperature?)	65 Use 65 for indoor storage	217.273(a)(1)
Capacity of chlorine disinfection system @ max. flow	32 lbs per day	217.272(a) K.1
Avg. daily chlorine usage @ average flow	8 lbs per day	
Max. withdrawal rate per cylinder	65 lbs per day (Formula for vacuum systems only)	217.273(a)(1) K.2
No. of Cylinders required per bank	1	
One bank of cylinders will last	19 days at average flow and typical chlorine usage	

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations**Digesters**

TCEQ Minimum Sludge Retention Time 40 days 217.249(t)(4)(B)(Table J.2)
 TCEQ Min. Volatile Solids Loading Rate 100 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)
 TCEQ Max. Volatile Solids Loading Rate 200 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)

Influent BOD₅ 350 lb/ day
 Effluent BOD₅ 10 lb/ day
 BOD₅ to Digester 340 lb/ day

Volume Required from Metcalf and Eddy, "Wastewater Engineering," 4th Edition

Hydraulic Detention Time of the Aeration Basins

$$\theta (\text{Gal}) = \left(\frac{\text{Volume of Aeration Basins in Gallons}}{\text{Average Influent Flow in Gallons / Day}} \right) * 24 \text{ hrs/day}$$

BOD₅ Utilized

$$\text{BOD}_{5\text{ utilized}} \left(\frac{\text{lbs BOD}_5}{\text{day}} \right) = Q * (S_i - S_e)$$

NH₃-N Utilized

$$\text{NH}_{3\text{ utilized}} \left(\frac{\text{lbs NH}_3}{\text{day}} \right) = Q * (N_i - N_e)$$

Hydraulic Detention Time of Aeration Basins / SBRs 15.01 Hours

BOD₅ utilized 340 lb BOD₅ / day
 NH₃ utilized 72 lb NH₃-N / day

S BOD₅ Concentration
 N NH₃-N Concentration
 i Influent (subscript)
 e Effluent (subscript)
 Q Average Design Flow
 Q_{design} Peak Flow
 Q_w Waste Sludge Flow to Digester
 X_w Waste Sludge Concentration 8,500 mg/L
 Y Yield Coefficient 0.6 VSS/lb BOD₅
 Y_n Yield Coefficient (nitrification) 0.15 VSS/lb NH₃-N
 k_d Endogenous Decay Coefficient 0.06 /day
 k_{dn} Endogenous Decay Coeff. (nitrification) 0.30 /day
 P_n Volatile Fraction of X 0.70
 MLVSS/MLSS Ratio 0.70
 S_{sl} Specific Gravity of Sludge 1.005
 X Sludge Concentration in Digester 25,000 mg/L
 P_s Percent Solids in Digester 2.5
 TSS_% % of TSS that is inert 50 %
 ρ_w Specific Weight of Water 8.34 lbs / gallon

Typical Values			
Variable	Range		Source
X _w	0.8	2.5	M&E, 4th ed., pg. 14
Y	0.4	0.8	M&E, 4th ed., pg. 58
Y _n	0.04	0.29	WEF MoP 8, Vol I, p
k _d	0.06	0.15	M&E, 4th ed., pg. 58
k _{dn}	0.3	3.0	WEF MoP 8, Vol I, p
P _n	0.59	0.88	M&E, 4th ed., pg. 14
S _{sl}	1.005	1.005	M&E, 4th ed., pg. 14
X	15,000	40,000	M&E, 4th ed., pg. 14
P _s	1.5	4	M&E, 4th ed., pg. 14

Carbonaceous Yield Coefficient Observed

$$Y_{c,obs} = \left(\frac{Y}{1 + k_d * \theta} \right)$$

M&E, 4th ed. Pg. 595 Nitrogenous Yield Coefficient

M&E, 4th ed. Pg. 595

$$Y_{n,obs} = \left(\frac{Y_n}{1 + k_{dn} * \theta} \right)$$

Carbonaceous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681 Nitrogenous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681

$$P_{x,c} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{c,obs} * Q * (S_i - S_e) = Y_{c,obs} * \text{BOD}_{5\text{ utilized}}$$

$$P_{x,n} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{n,obs} * Q * (N_i - N_e) = Y_{n,obs} * \text{NH}_{3\text{ utilized}}$$

Inert Sludge Production

M&E, 4th ed. Pg. 681

$$P_{x,i} \left(\frac{\text{lb}}{\text{day}} \right) = Q_{\text{design}} * \text{TSS}_{\%} * (\text{TSS}_i - \text{TSS}_e) * 8.34$$

Total Sludge Production

M&E, 4th ed. Pg. 682

$$P_x \left(\frac{\text{lb}}{\text{day}} \right) = P_{x,c} + P_{x,n} + P_{x,i}$$

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations

Waste Sludge Flow to Digester

M&E, 4th ed. Pg. 1458

$$Q_w = \frac{\text{Total Sludge Production, Dry Solids}}{\rho_w S_{sl} P_s}$$

Required Volume

M&E, 4th ed. Pg. 1537

$$V \text{ (Gal)} = \left(\frac{Q_w}{X} \right) \left(\frac{(X_w + Y * S_i)}{k_d * P_n + \frac{1}{SRT}} \right)$$

$Y_{c,obs}$ Carbonaceous Yield Coefficient
 $P_{x,c}$ Carbonaceous Sludge Production

0.58
 197 lb / day (MLVSS)
 281 lb / day (MLSS)

$Y_{n,obs}$ Nitrogenous Yield Coefficient
 $P_{x,n}$ Nitrogenous Sludge Production

0.13
 9.10 lb / day (MLVSS)
 13.00 lb / day (MLSS)

Inert Sludge Production (TSS), Dry Solids

118 lb / day

Total Sudge Production, Volatile Solids

206 lb / day

Volatile Solids Loading Rate

41 lb / day / 1,000 cu. ft.

Total Sudge Production, Dry Solids

500 lb / day

Q_w Waste Sludge Flow to Digester

2,386 gallons / day

Digester Volume Required

12,408 gallons
1,659 cu. ft.

Volume Provided:

Length	20 ft
Width	12 ft
SWD	10.5
# Tanks	2
Volume	5,040 cu. ft.

Total Digester Vol. available

5,040 cu. ft.

Volume greater than required

YES

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations

Air Requirements

Criteria	Value	Regulation
Air requirements for Aeration basins	2.12 lb oxygen per lb BOD	217.155(a)(3)
Air requirements for digesters	30 SCFM /1000 cu. ft.	217.249(d)(1)(C)***
Air requirements for post aeration	20 SCFM /1000 cu. ft.	not regulated by TCEQ
Minimum mixing requirements	0.12 SCFM /sq. ft.	217.155 (b)(3)(B)
Diffuser transfer efficiency	6.5% (In wastewater)	217.155 (b)(2)(B)
Design Submergence	10.00 feet	
Diffuser Submergence Correction Factor	1.56 @ design flow depth	217.155 (b)(2)(D)
Corrected Air Flowrate @ Design Submergence = $= \frac{\{(lb\ BOD) * (lb\ Oxygen / lb\ BOD)\} * Correction\ Factor}{(T.E.) (lb\ Oxygen / lb\ air) (lb\ air / cu.\ ft.) (min / day)}$	718 SCFM	217.155 (b)(2)(C)
Air required for digesters:	151 SCFM	
Air required for post aeration	41 SCFM	
Air Requirements for air lift pumps	40 SCFM	
Total Air Requirements	950	
Use (3) 500 SCFM blowers		

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations

Design Parameters

Influent Flow Characteristics - The hydraulic design of the facility must ensure that the plant will operate under the most extreme conditions anticipated. The plant process and hydraulic design for this facility are as follows:

Average Design Flow	1.05 MGD	Influent BOD ₅	350 mg / l
	729 gpm	Influent BOD5	3065 lbs / day
Peaking Factor	4	Influent TSS	250 mg / l
Peak Flow	4.2 MGD		
	2,917 gpm	Influent NH3-N	75 mg/L
Effluent Characteristics			
BOD ₅ S _e	10 mg/L		
TSS TSS _e	15 mg/L		
NH ₃ -N N _e	3 mg/L		

The calculations below are based on minimum TCEQ sizing parameters but may not reflect actual treatment unit dimensions. Values shown are the minimum that will be provided.

SBR FOUR BASIN SYSTEM

Criteria	Value	Regulation Section
Maximum Organic Loading Rate (lbs BOD ₅ /day/1000 cu ft)	35	217.156(a)(6)
Reactor MLSSS Level at normal operating level (mg/l)	3000-5000	217.156(a)(7)
Min Side Water Depth (ft)	12	217.156(a)(9)

Aeration Volume Required 87,570 cu. ft.

Volume Provided:

SBR Cycle Time @ Desing ADf 288 min
 SBR Cycle Time @ Peak Flow 144 min

Design Side Water Depths

Length	75 ft	24.00 ft - Design max water level at peak flow w/ all basins operating
Width	25 ft	17.74 ft - Water level at design flow w/ all basins operating
		18.99 ft - Water level at design flow w/ 1 basin out of service
		21.49 ft - Calculated max water level at peak flow w/ all basins operating
		23.98 ft - Calculated max water level at peak flow w/ 1 basin out of service
# Tanks	4	14.00 ft - Minimum water level

Volume (w/ one basin out of service per TCEQ 217.156 (c) 106,825 cu. ft.

Effective Organic Loading with one basin out of service at design water depth 28.69 lbs BOD₅/day/1000 cu. ft.

IDS Engineering Group

Project: Generation Park East WWTP
Job Number: 1339-012-04
Design By: VHW
Checked By: KP
Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations

CHEMICAL (CHLORINE) DISINFECTION**Chlorination**

Minimum Cl ₂ Contact Time	20 minutes	<i>Regulation Section</i> 217.281(b)(1)
Max. Decant Rate per SBR Basins	3,889	
Maximum No. of Basins Decanting at one time	1	
Chlorine basin volume required at max. decant rate	77,778 gallons	
Phase I		
Length	58 ft	
Width	8 ft	
Depth @ design	11.5 ft	
Number of Basins	2	
Volume Provided	79,827 gallons	
Volume provided greater than or equal to required volume	YES	
Max. Decant Flow Rate	3,889 gpm	
Daily Average Flow	729 gpm	
TCEQ min. design Cl ₂ dose	8 mg / l	217.272(b)
Cylinder size	2000 lbs	
Withdrawal factor	8 (Use 1.0 for 150 # cylinder and 8.0 for 2000 # cylinders)	217.273(a)(1)
Threshold Temperatures (Low Ambient Temperature?)	65 Use 65 for indoor storage	217.273(a)(1)
Capacity of chlorine disinfection system @ max. flow	374 lbs per day	217.272(a) K.1
Avg. daily chlorine usage @ average flow	70 lbs per day	
Max. withdrawal rate per cylinder	520 lbs per day (Formula for vacuum systems only)	217.273(a)(1) K.2
No. of Cylinders required per bank	1	
One bank of cylinders will last	29 days at average flow and typical chlorine usage	

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations**Digesters**

TCEQ Minimum Sludge Retention Time 40 days 217.249(t)(4)(B)(Table J.2)
 TCEQ Min. Volatile Solids Loading Rate 100 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)
 TCEQ Max. Volatile Solids Loading Rate 200 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)

Influent BOD₅ 3065 lb/ day
 Effluent BOD₅ 88 lb/ day
 BOD₅ to Digester 2977 lb/ day

Volume Required from Metcalf and Eddy, "Wastewater Engineering," 4th Edition

Hydraulic Detention Time of the Aeration Basins

$$\theta (\text{Gal}) = \left(\frac{\text{Volume of Aeration Basins in Gallons}}{\text{Average Influent Flow in Gallons / Day}} \right) * 24 \text{ hrs/day}$$

BOD₅ Utilized

$$\text{BOD}_{5\text{ utilized}} \left(\frac{\text{lbs BOD}_5}{\text{day}} \right) = Q * (S_i - S_e)$$

NH₃-N Utilized

$$\text{NH}_{3\text{ utilized}} \left(\frac{\text{lbs NH}_3}{\text{day}} \right) = Q * (N_i - N_e)$$

Hydraulic Detention Time of Aeration Basins / SBRs 18.26 Hours

BOD₅ utilized 2,977 lb BOD₅ / day
 NH₃ utilized 631 lb NH₃ -N / day

S BOD₅ Concentration
 N NH₃-N Concentration
 i Influent (subscript)
 e Effluent (subscript)
 Q Average Design Flow
 Q_{design} Peak Flow
 Q_w Waste Sludge Flow to Digester
 X_w Waste Sludge Concentration 8,500 mg/L
 Y Yield Coefficient 0.6 VSS/lb BOD₅
 Y_n Yield Coefficient (nitrification) 0.15 VSS/lb NH₃-N
 k_d Endogenous Decay Coefficient 0.06 /day
 k_{dn} Endogenous Decay Coeff. (nitrification) 0.30 /day
 P_n Volatile Fraction of X 0.70
 MLVSS/MLSS Ratio 0.70
 S_{sl} Specific Gravity of Sludge 1.005
 X Sludge Concentration in Digester 25,000 mg/L
 P_s Percent Solids in Digester 2.5
 TSS_% % of TSS that is inert 50 %
 ρ_w Specific Weight of Water 8.34 lbs / gallon

Typical Values			
Variable	Range		Source
X _w	0.8	2.5	M&E, 4th ed., pg. 14
Y	0.4	0.8	M&E, 4th ed., pg. 58
Y _n	0.04	0.29	WEF MoP 8, Vol I, p
k _d	0.06	0.15	M&E, 4th ed., pg. 58
k _{dn}	0.3	3.0	WEF MoP 8, Vol I, p
P _n	0.59	0.88	M&E, 4th ed., pg. 14
S _{sl}	1.005	1.005	M&E, 4th ed., pg. 14
X	15,000	40,000	M&E, 4th ed., pg. 14
P _s	1.5	4	M&E, 4th ed., pg. 14

Carbonaceous Yield Coefficient Observed

M&E, 4th ed. Pg. 595 Nitrogenous Yield Coefficient

M&E, 4th ed. Pg. 595

$$Y_{c,obs} = \left(\frac{Y}{1 + k_d * \theta} \right)$$

$$Y_{n,obs} = \left(\frac{Y_n}{1 + k_{dn} * \theta} \right)$$

Carbonaceous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681 Nitrogenous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681

$$P_{x,c} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{c,obs} * Q * (S_i - S_e) = Y_{c,obs} * \text{BOD}_{5\text{ utilized}}$$

$$P_{x,n} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{n,obs} * Q * (N_i - N_e) = Y_{n,obs} * \text{NH}_{3\text{ utilized}}$$

Inert Sludge Production

M&E, 4th ed. Pg. 681

$$P_{x,i} \left(\frac{\text{lb}}{\text{day}} \right) = Q_{\text{design}} * \text{TSS}_{\%} * (\text{TSS}_i - \text{TSS}_e) * 8.34$$

Total Sludge Production

M&E, 4th ed. Pg. 682

$$P_x \left(\frac{\text{lb}}{\text{day}} \right) = P_{x,c} + P_{x,n} + P_{x,i}$$

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations

Waste Sludge Flow to Digester

M&E, 4th ed. Pg. 1458

$$Q_w = \frac{\text{Total Sludge Production, Dry Solids}}{\rho_w S_{sl} P_s}$$

Required Volume

M&E, 4th ed. Pg. 1537

$$V \text{ (Gal)} = \left(\frac{Q_w}{X} \right) \left(\frac{(X_w + Y * S_i)}{k_d * P_n + \frac{1}{SRT}} \right)$$

$Y_{c,obs}$ Carbonaceous Yield Coefficient
 $P_{x,c}$ Carbonaceous Sludge Production

0.57
 1,708 lb / day (MLVSS)
 2,441 lb / day (MLSS)

$Y_{n,obs}$ Nitrogenous Yield Coefficient
 $P_{x,n}$ Nitrogenous Sludge Production

0.12
 77.00 lb / day (MLVSS)
 110.00 lb / day (MLSS)

Inert Sludge Production (TSS), Dry Solids

1029 lb / day

Total Sudge Production, Volatile Solids

1785 lb / day

Volatile Solids Loading Rate

118 lb / day / 1,000 cu. ft.

Total Sudge Production, Dry Solids

4336 lb / day

Q_w Waste Sludge Flow to Digester

20,693 gallons / day

Digester Volume Required

107,602 gallons
14,385 cu. ft.

Volume Provided:

Length 60 ft
 Width 12 ft
 SWD 10.5
 # Tanks 2
 Volume 15,120 cu. ft.

Total Digester Vol. available

15,120 cu. ft.

Volume greater than required

YES

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations

Air Requirements

Criteria	Value	Regulation
Air requirements for SBR basins	2.12 lb oxygen per lb BOD	217.155(a)(3)
Air requirements for digesters	30 SCFM /1000 cu. ft.	217.249(d)(1)(C)***
Air requirements for post aeration	10 SCFM /1000 cu. ft.	not regulated by TCEQ
Minimum mixing requirements	0.12 SCFM /sq. ft.	217.155 (b)(3)(B)
Diffuser transfer efficiency	11.7% (In wastewater)	217.155 (b)(2)(B)
Design Submergence	17.74 feet	
Diffuser Submergence Correction Factor	0.75 @ design flow depth	217.155 (b)(2)(D)
Number of Basins, with one out of service	3	
Design Aeration Time	0.50 days/basin	
Corrected Air Flowrate @ Design Submergence = = {(lb BOD)*(lb Oxygen / lb BOD)} * Correction Factor (T.E.) (lb Oxygen / lb air) (lb air / cu. ft.) (min / day)	1668 SCFM	217.155 (b)(2)(C)
Minimum Air Flowrate @ Design Aeration Time Per Basin = Corrected Air Flow Rate Design Aeration Time X No. of Basins	1112 SCFM per basin	
Verify mixing requirements:	0.22 OK	
Provide 4 SBR Blowers @	1112 SCFM each (1 per basin w/ 1 standby)	
Maximum water depth over diffuser	25 feet	top of SBR basin minus 1 ft for hieght of diffuse
Pressure loss in piping	0.7 psi	
Pressure @ blowers	11.3 psi	
Air required for digesters:	454 SCFM	
Provide 3 Digester Blowers @	227 SCFM each (1 per basin w/ 1 standby)	
Air required for post aeration	107 SCFM	
Provide 2 Post-Air Blower(s) @	53 SCFM	

IDS Engineering Group

Project: Generation Park East WWTP

Job Number:

Design By: VHW

Checked By: KP

Date: 2/25/2025

Description:

Phase II - 1.05 MGD

Final Process CalculationsDecanter Sizing Per TCEQ Chapter 217.156(b)(8), requiring the decant system to accommodate the design flow with a constant cycle time with the largest tank out of serviceBasin DimensionsWidth 25 feetLength 75 feetMin SWD 14 feetMax SWD 24.5 feet

Condition No. 1: -Basins in service

4

basins

All Basins in Service

-Decant flow of

3,889

gpm

% of Design Flow	Flow Rate MGD	No. of Cycles/day	Total Cycle Time minutes	Batch Volume Gallon	Fill React minutes	React minutes	Fill Settle minutes	Settle minutes	Fill Decant minutes	Decant minutes	Fill Idle minutes	Idle minutes	Total Fill minutes	Total React minutes	Total Settle minutes	Total Decant minutes	Volume Decant gal	Decant Depth ft.	Basin water Surface Elevation ft
100%	1.05	5.00	288	52,500	173	0	45	0	14	0	56.7	0	288	173	45	14	52,500	3.7	17.74
150%	1.58	5.00	288	78,750	173	0	45	0	20	0	50.0	0	288	173	45	20	78,750	5.6	19.61
200%	2.10	5.00	288	105,000	173	0	45	0	27	0	43.2	0	288	173	45	27	105,000	7.5	21.49
250%	2.63	6.66	216	98,536	130	0	45	0	25	0	16	0	216	130	45	25	98,536	7.0	21.03
300%	3.15	6.66	216	118,243	130	0	45	0	30	0	11	0	216	130	45	30	118,243	8.4	22.43
350%	3.68	10.00	144	91,875	71	0	45	0	24	0	4	0	144	71	45	24	91,875	6.6	20.55
400%	4.20	10.00	144	105,000	67	0	45	0	27	0	5	0	144	67	45	27	105,000	7.5	21.49

Condition No. 2: -Basins in service

3

basins

One Basin Out of Service

-Decant flow of

3,889

gpm

% of Design Flow	Flow Rate MGD	No. of Cycles/day	Total Cycle Time minutes	Batch Volume Gallon	Fill React minutes	React minutes	Fill Settle minutes	Settle minutes	Fill Decant minutes	Decant minutes	Fill Idle minutes	Idle minutes	Total Fill minutes	Total React minutes	Total Settle minutes	Total Decant minutes	Volume Decant gal	Decant Depth ft.	Basin water Surface Elevation ft
100%	1.05	5.00	288	70,000	144	0	45	0	18	0	81.0	0	288	144	45	18	70,000	5.0	18.99
150%	1.58	5.00	288	105,000	144	0	45	0	27	0	72.0	0	288	144	45	27	105,000	7.5	21.49
200%	2.10	5.00	288	140,000	144	0	45	0	36	0	63.0	0	288	144	45	36	140,000	10.0	23.98
250%	2.63	6.66	216	131,381	108	0	45	0	34	0	29	0	216	108	45	34	131,381	9.4	23.37
300%	3.15	10.00	144	105,000	72	0	45	0	27	0	0	0	144	72	45	27	105,000	7.5	21.49
350%	3.68	10.00	144	122,500	68	0	45	0	32	0	-1	0	144	68	45	32	122,500	8.7	22.73
400%	4.20	10.00	144	140,000	63	0	45	0	36	0	0	0	144	63	45	36	140,000	10.0	23.98

Decant Size from Above

3,889

gpm

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations

Design Parameters

Influent Flow Characteristics - The hydraulic design of the facility must ensure that the plant will operate under the most extreme conditions anticipated. The plant process and hydraulic design for this facility are as follows:

Average Design Flow	2.8 MGD	Influent BOD ₅	350 mg / l
	1,944 gpm	Influent BOD5	8173 lbs / day
Peaking Factor	4	Influent TSS	300 mg / l
Peak Flow	11.2 MGD		
	7,778 gpm	Influent NH3-N	75 mg/L
Effluent Characteristics			
BOD ₅ S _e	10 mg/L		
TSS TSS _e	15 mg/L		
NH ₃ -N N _e	3 mg/L		

The calculations below are based on minimum TCEQ sizing parameters but may not reflect actual treatment unit dimensions.
 Values shown are the minimum that will be provided.

SBR FOUR BASIN SYSTEM

Criteria	Value	Regulation Section
Maximum Organic Loading Rate (lbs BOD ₅ /day/1000 cu ft)	35	217.156(a)(6)
Reactor MLSSS Level at normal operating level (mg/l)	3000-5000	217.156(a)(7)
Min Side Water Depth (ft)	12	217.156(a)(9)

Aeration Volume Required 233,520 cu. ft.

Volume Provided:

SBR Cycle Time @ Desing ADf 288 min
 SBR Cycle Time @ Peak Flow 144 min

Design Side Water Depths

Length	75 ft	24.00 ft - Design max water level at peak flow w/ all basins operating
Width	25 ft	17.44 ft - Water level at design flow w/ all basins operating
		17.99 ft - Water level at design flow w/ 1 basin out of service
		21.87 ft - Calculated max water level at peak flow w/ all basins operating
		22.98 ft - Calculated max water level at peak flow w/ 1 basin out of service
# Tanks	9	13.00 ft - Minimum water level

Volume (w/ one basin out of service per TCEQ 217.156 (c) 269,866 cu. ft.

Effective Organic Loading with
 one basin out of service at design water depth 30.29 lbs BOD₅/day/1000 cu. ft.

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations

CHEMICAL (CHLORINE) DISINFECTION**Chlorination**

Minimum Cl ₂ Contact Time	20 minutes	<i>Regulation Section</i> 217.281(b)(1)
Max. Decant Rate per SBR Basins	3,889	
Maximum No. of Basins Decanting at one time	2	
Chlorine basin volume required at max. decant rate	155,556 gallons	
Phase I		
Length	58 ft	
Width	8 ft	
Depth @ design	11.5 ft	
Number of Basins	4	
Volume Provided	159,653 gallons	
Volume provided greater than or equal to required volume	YES	
Max. Decant Flow Rate	7,778 gpm	
Daily Average Flow	1,944 gpm	
TCEQ min. design Cl ₂ dose	8 mg / l	217.272(b)
Cylinder size	2000 lbs	
Withdrawal factor	8 (Use 1.0 for 150 # cylinder and 8.0 for 2000 # cylinders)	217.273(a)(1)
Threshold Temperatures (Low Ambient Temperature?)	65 Use 65 for indoor storage	217.273(a)(1)
Capacity of chlorine disinfection system @ max. flow	747 lbs per day	217.272(a) K.1
Avg. daily chlorine usage @ average flow	187 lbs per day	
Max. withdrawal rate per cylinder	520 lbs per day (Formula for vacuum systems only)	217.273(a)(1) K.2
No. of Cylinders required per bank	2	
One bank of cylinders will last	21 days at average flow and typical chlorine usage	

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations
Digesters

TCEQ Minimum Sludge Retention Time 40 days 217.249(t)(4)(B)(Table J.2)
 TCEQ Min. Volatile Solids Loading Rate 100 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)
 TCEQ Max. Volatile Solids Loading Rate 200 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)

Influent BOD₅ 8173 lb/ day
 Effluent BOD₅ 234 lb/ day
 BOD₅ to Digester 7940 lb/ day

Volume Required from Metcalf and Eddy, "Wastewater Engineering," 4th Edition

Hydraulic Detention Time of the Aeration Basins

$$\theta (\text{Gal}) = \left(\frac{\text{Volume of Aeration Basins in Gallons}}{\text{Average Influent Flow in Gallons / Day}} \right) * 24 \text{ hrs/day}$$

BOD₅ Utilized

$$\text{BOD}_{5\text{ utilized}} \left(\frac{\text{lbs BOD}_5}{\text{day}} \right) = Q * (S_i - S_e)$$

NH₃-N Utilized

$$\text{NH}_{3\text{ utilized}} \left(\frac{\text{lbs NH}_3}{\text{day}} \right) = Q * (N_i - N_e)$$

Hydraulic Detention Time of Aeration Basins / SBRs 17.30 Hours

BOD₅ utilized 7,940 lb BOD₅ / day
 NH₃ utilized 1,681 lb NH₃-N / day

S BOD₅ Concentration
 N NH₃-N Concentration
 i Influent (subscript)
 e Effluent (subscript)
 Q Average Design Flow
 Q_{design} Peak Flow
 Q_w Waste Sludge Flow to Digester
 X_w Waste Sludge Concentration 8,500 mg/L
 Y Yield Coefficient 0.6 VSS/lb BOD₅
 Y_n Yield Coefficient (nitrification) 0.15 VSS/lb NH₃-N
 k_d Endogenous Decay Coefficient 0.06 /day
 k_{dn} Endogenous Decay Coeff. (nitrification) 0.30 /day
 P_n Volatile Fraction of X 0.70
 P_n MLVSS/MLSS Ratio 0.70
 S_{sl} Specific Gravity of Sludge 1.005
 X Sludge Concentration in Digester 25,000 mg/L
 P_s Percent Solids in Digester 2.5
 TSS_% % of TSS that is inert 50 %
 ρ_w Specific Weight of Water 8.34 lbs / gallon

Typical Values			
Variable	Range		Source
X _w	0.8	2.5	M&E, 4th ed., pg. 14
Y	0.4	0.8	M&E, 4th ed., pg. 58
Y _n	0.04	0.29	WEF MoP 8, Vol I, p
k _d	0.06	0.15	M&E, 4th ed., pg. 58
k _{dn}	0.3	3.0	WEF MoP 8, Vol I, p
P _n	0.59	0.88	M&E, 4th ed., pg. 14
S _{sl}	1.005	1.005	M&E, 4th ed., pg. 14
X	15,000	40,000	M&E, 4th ed., pg. 14
P _s	1.5	4	M&E, 4th ed., pg. 14

Carbonaceous Yield Coefficient Observed

M&E, 4th ed. Pg. 595 Nitrogenous Yield Coefficient

M&E, 4th ed. Pg. 595

$$Y_{c,obs} = \left(\frac{Y}{1 + k_d * \theta} \right)$$

$$Y_{n,obs} = \left(\frac{Y_n}{1 + k_{dn} * \theta} \right)$$

Carbonaceous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681 Nitrogenous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681

$$P_{x,c} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{c,obs} * Q * (S_i - S_e) = Y_{c,obs} * \text{BOD}_{5\text{ utilized}}$$

$$P_{x,n} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{n,obs} * Q * (N_i - N_e) = Y_{n,obs} * \text{NH}_{3\text{ utilized}}$$

Inert Sludge Production

M&E, 4th ed. Pg. 681

$$P_{x,i} \left(\frac{\text{lb}}{\text{day}} \right) = Q_{\text{design}} * \text{TSS}_{\%} * (\text{TSS}_i - \text{TSS}_e) * 8.34$$

Total Sludge Production

M&E, 4th ed. Pg. 682

$$P_x \left(\frac{\text{lb}}{\text{day}} \right) = P_{x,c} + P_{x,n} + P_{x,i}$$

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations

Waste Sludge Flow to Digester

M&E, 4th ed. Pg. 1458

$$Q_w = \frac{\text{Total Sludge Production, Dry Solids}}{\rho_w S_{sl} P_s}$$

Required Volume

M&E, 4th ed. Pg. 1537

$$V \text{ (Gal)} = \left(\frac{Q_w}{X} \right) \left(\frac{(X_w + Y * S_i)}{k_d * P_n + \frac{1}{SRT}} \right)$$

$Y_{c,obs}$ Carbonaceous Yield Coefficient
 $P_{x,c}$ Carbonaceous Sludge Production

0.58
 4,566 lb / day (MLVSS)
 6,523 lb / day (MLSS)

$Y_{n,obs}$ Nitrogenous Yield Coefficient
 $P_{x,n}$ Nitrogenous Sludge Production

0.12
 207.36 lb / day (MLVSS)
 296.22 lb / day (MLSS)

Inert Sludge Production (TSS), Dry Solids

3328 lb / day

Total Sudge Production, Volatile Solids

4774 lb / day

Volatile Solids Loading Rate

95 lb / day / 1,000 cu. ft.

Total Sudge Production, Dry Solids

11593 lb / day

Q_w Waste Sludge Flow to Digester

55,326 gallons / day

Digester Volume Required

287,695 gallons
38,462 cu. ft.

Volume Provided:

Length	25 ft
Width	40 ft
SWD	12.5
# Tanks	4
Volume	50,000 cu. ft.

Total Digester Vol. available

50,000 cu. ft.

Volume greater than required

YES

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations

Air Requirements

Criteria	Value	Regulation
Air requirements for SBR basins	2.12 lb oxygen per lb BOD	217.155(a)(3)
Air requirements for digesters	30 SCFM /1000 cu. ft.	217.249(d)(1)(C)***
Air requirements for post aeration	10 SCFM /1000 cu. ft.	not regulated by TCEQ
Minimum mixing requirements	0.12 SCFM /sq. ft.	217.155 (b)(3)(B)
Diffuser transfer efficiency	11.7% (In wastewater)	217.155 (b)(2)(B)
Design Submergence	17.44 feet	
Diffuser Submergence Correction Factor	0.76 @ design flow depth	217.155 (b)(2)(D)
Number of Basins, with one out of service	8	
Design Aeration Time	0.50 days/basin	
Corrected Air Flowrate @ Design Submergence = $= \frac{\{(lb\ BOD) * (lb\ Oxygen / lb\ BOD)\} * Correction\ Factor}{(T.E.) (lb\ Oxygen / lb\ air) (lb\ air / cu.\ ft.) (min / day)}$	4557 SCFM	217.155 (b)(2)(C)
Minimum Air Flowrate @ Design Aeration Time Per Basin = $\frac{Corrected\ Air\ Flow\ Rate}{Design\ Aeration\ Time\ X\ No.\ of\ Basins}$	1139 SCFM per basin	
Verify mixing requirements:	0.27 OK	
Provide 9 SBR Blowers @	1139 SCFM each (1 per basin w/ 1 standby)	
Maximum water depth over diffuser	25 feet	top of SBR basin minus 1 ft for hieght of diffuse
Pressure loss in piping	0.7 psi	
Pressure @ blowers	11.3 psi	
Air required for digesters:	1500 SCFM	
Provide 5 Digester Blowers @	375 SCFM each (1 per basin w/ 1 standby)	
Air required for post aeration	213 SCFM	
Provide 4 Post-Air Blower(s) @	53 SCFM	

IDS Engineering Group

Project: Generation Park East WWTP

Job Number:

Design By: VHW

Checked By: KP

Date: 2/25/2025

Description:

Phase III- 2.8 MGD

Final Process CalculationsDecanter Sizing Per TCEQ Chapter 217.156(b)(8), requiring the decant system to accommodate the design flow with a constant cycle time with the largest tank out of serviceBasin Dimentions

<u>Width</u>	25 feet
<u>Length</u>	75 feet
<u>Min SWD</u>	14 feet
<u>Max SWD</u>	24.5 feet

Condition No. 1: -Basins in service
-Decant flow of

9 basins All Basins in Service
3,889 gpm

% of Design Flow	Flow Rate MGD	No. of Cycles/day	Total Cycle Time minutes	Batch Volume Gallon	Fill React minutes	React minutes	Fill Settle minutes	Settle minutes	Fill Decant minutes	Decant minutes	Fill Idle minutes	Idle minutes	Total Fill minutes	Total React minutes	Total Settle minutes	Total Decant minutes	Volume Decant gal	Decant Depth ft.	Basin water Surface Elevation ft
100%	2.80	5.00	288	62,222	173	0	45	0	16	0	54.2	0	288	173	45	16	62,222	4.4	18.44
150%	4.20	5.00	288	93,333	173	0	45	0	24	0	46.2	0	288	173	45	24	93,333	6.7	20.65
200%	5.60	5.00	288	124,444	173	0	45	0	32	0	38.2	0	288	173	45	32	124,444	8.9	22.87
250%	7.00	6.66	216	116,783	130	0	45	0	30	0	11	0	216	130	45	30	116,783	8.3	22.33
300%	8.40	6.66	216	140,140	130	0	45	0	36	0	5	0	216	130	45	36	140,140	10.0	23.99
350%	9.80	10.00	144	108,889	71	0	45	0	28	0	0	0	144	71	45	28	108,889	7.8	21.76
400%	11.20	10.00	144	124,444	67	0	45	0	32	0	0	0	144	67	45	32	124,444	8.9	22.87

Condition No. 2: -Basins in service
-Decant flow of

8 basins One Basin Out of Service
3,889 gpm

% of Design Flow	Flow Rate MGD	No. of Cycles/day	Total Cycle Time minutes	Batch Volume Gallon	Fill React minutes	React minutes	Fill Settle minutes	Settle minutes	Fill Decant minutes	Decant minutes	Fill Idle minutes	Idle minutes	Total Fill minutes	Total React minutes	Total Settle minutes	Total Decant minutes	Volume Decant gal	Decant Depth ft.	Basin water Surface Elevation ft
100%	2.80	5.00	288	70,000	144	0	45	0	18	0	81.0	0	288	144	45	18	70,000	5.0	18.99
150%	4.20	5.00	288	105,000	144	0	45	0	27	0	72.0	0	288	144	45	27	105,000	7.5	21.49
200%	5.60	5.00	288	140,000	144	0	45	0	36	0	63.0	0	288	144	45	36	140,000	10.0	23.98
250%	7.00	6.66	216	131,381	108	0	45	0	34	0	29	0	216	108	45	34	131,381	9.4	23.37
300%	8.40	6.66	216	157,658	108	0	45	0	41	0	23	0	216	108	45	41	157,658	11.2	25.24
350%	9.80	10.00	144	122,500	68	0	45	0	32	0	0	0	144	68	45	32	122,500	8.7	22.73
400%	11.20	10.00	144	140,000	63	0	45	0	36	0	0	0	144	63	45	36	140,000	10.0	23.98

Decant Size from Above 3,889 gpm

ATTACHMENT NO. 17

FIRM PANEL

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevation (BFEs)** and/or **roadways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevation (BFEs) shown on this map apply only landward of O.G. North American Vertical Datum (NAVD). Users of this FIRM should be aware that coastal flood elevations may also be provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for the community. Elevations shown in the Summary of Stillwater Elevations table should be used for construction, and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **roadways** were computed at cross sections and interpolated between cross sections. The roadways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Roadway width and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The projection used in the preparation of this map is Universal Transverse Mercator (UTM) zone 15. The **horizontal datum** is NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit their website at www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by the Harris-Galveston Area Council and was revised and enhanced by Harris County.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program data for each community as well as a listing of the panels on which each community is located.

An accompanying Flood Insurance Study report, Letters of Map Revision or Letters of Map Amendment revealing portions of this panel, and digital versions of this panel, may be available. Contact the **FEMA Map Service Center** at the following phone numbers and internet address for information on all related products available from FEMA.

Phone: 800-358-9818
FAX: 800-358-9820
www.fema.gov/msc

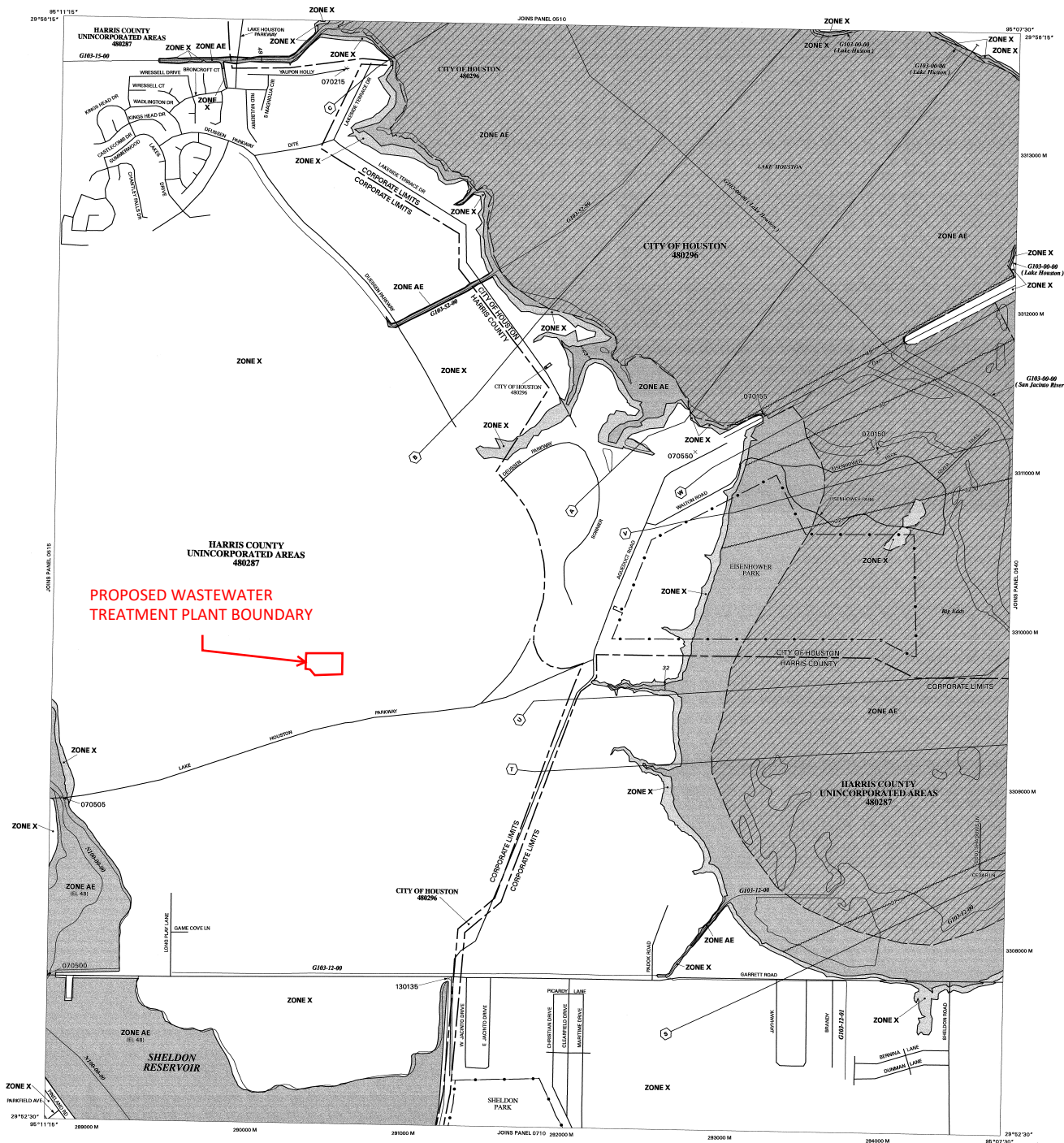
If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-Map (1-877-338-2627) or visit the FEMA website at www.fema.gov.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report may reflect stream channel distances that differ from what is shown on this map.

Vertical Datum Adjustment due to subsidence is the 2001 adjustment.

Benchmarks shown on this map were provided by either Harris County or the National Geodetic Survey. To obtain elevation, description, and location information for benchmarks provided by Harris County, please contact the Permit Office of the Public Infrastructure Department at (713) 956-3000 or visit their website at <http://www.ang.hctx.net/permits>. For information regarding the benchmarks provided by the National Geodetic Survey, please see notes above.

Some bridges and other structures shown on the detailed studied streams are not labeled. See corresponding flood profile for appropriate name.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone X, AE, AO, AR, A99, V, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

Zone A
Base flood elevations determined.

Zone AE
Flood depths of 1 to 3 feet usually areas of ponding; base flood elevations determined.

Zone AO
Flood depths of 1 to 3 feet usually sheet flow on sloping terrain; average depths determined. For areas of abrupt land flooding, velocities also determined.

Zone AR
Area of special flood hazard formerly protected from the 1% annual chance flood event by a flood control system that was subsequently identified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood event.

Zone A99
Area to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no base flood elevations determined.

Zone V
Coastal flood zone with velocity hazard (wave action); no base flood elevations determined.

Zone VE
Coastal flood zone with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

Zone X
Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

Zone X
Areas determined to be outside the 0.2% annual chance floodplain.

Zone D
Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or velocities

Base Flood Elevation line and value; elevation in feet*

Base Flood Elevation value where uniform within zone; elevation in feet*

***Referenced to the North American Vertical Datum of 1988**

Cross Section Line

Transect Line

Geographic coordinates referenced to the North American Datum of 1983

1000-meter Universal Transverse Mercator grid values, zone 15

5000-foot grid ticks

Bench mark sea explanation in Notes to Users section of this FIRM panel

DX5510

MT.5

MAP REPOSITORY

Refer to Repository Listing on Index Map

EFFECTIVE DATE OF COUNTY-WIDE FLOOD INSURANCE RATE MAP

SEPTEMBER 28, 1990

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

SEPTEMBER 20, 1992

NOVEMBER 6, 1996

APRIL 30, 2000

JUNE 16, 2007 to change base flood elevations, to add special flood hazard areas, to change special flood hazard areas, to change zone designations, to reflect updated topographic information, and to change floodway.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620.

MAP SCALE 1" = 1000'

500 1000 2000 FEET

200 0 300 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0520L

FIRM FLOOD INSURANCE RATE MAP

HARRIS COUNTY, TEXAS AND INCORPORATED AREAS

PANEL 520 OF 1150

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY:

HARRIS COUNTY, UNINCORPORATED AREAS, HOUSTON, CITY OF

ACROSS 2000 500 1

Notice to User: This Map Number shown below should be used when filing map with the Community Map Repository. This number should also be used on insurance applications for the subject community.

MAP NUMBER 48201C0520L

MAP REVISED: JUNE 16, 2007

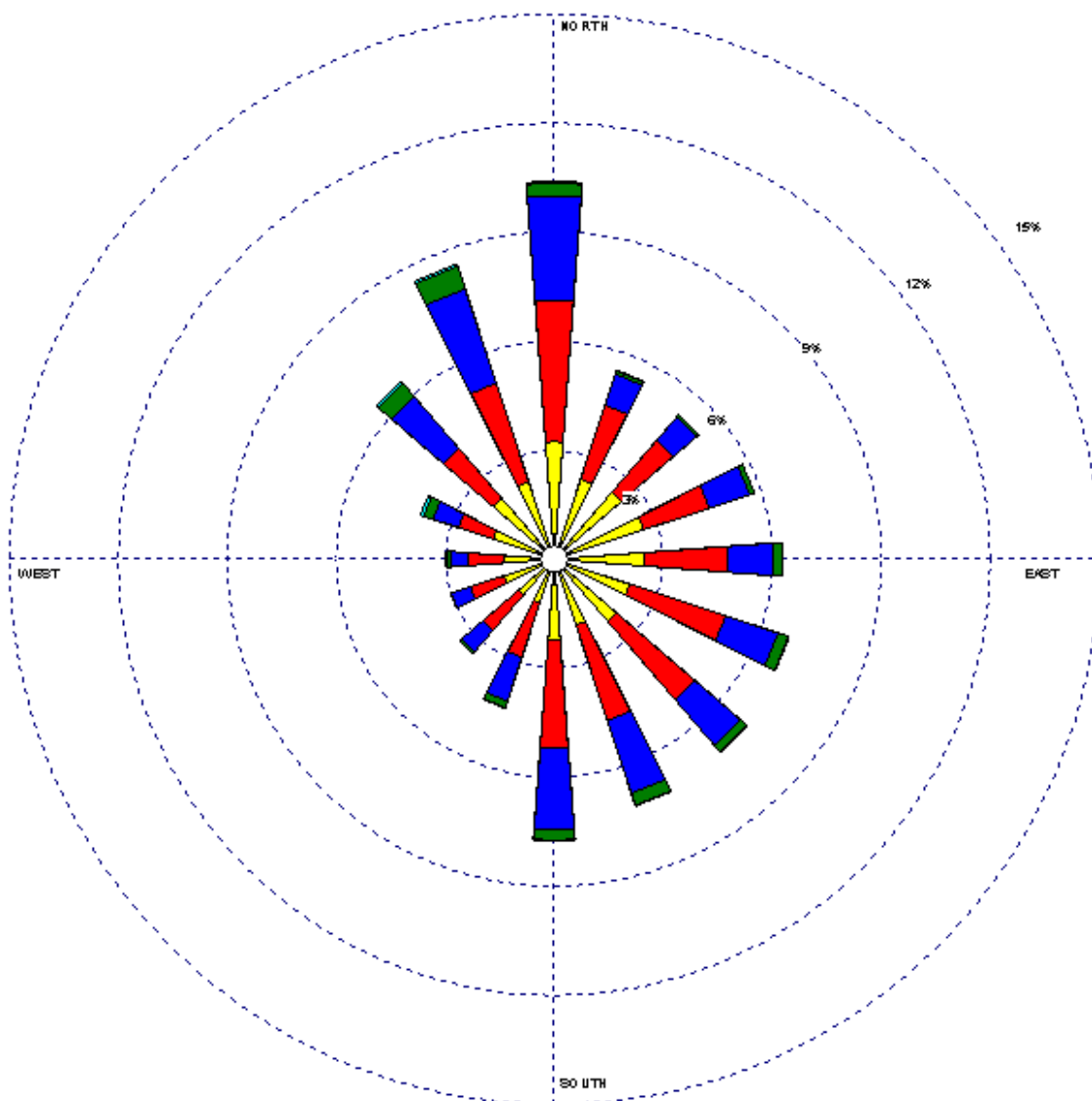
Federal Emergency Management Agency

ATTACHMENT NO. 18

WIND ROSE

WIND ROSE PLOT

Station #12960 - HOUSTON/INTERCONTINENTAL ARPT, TX



Wind Speed (m/s) 	MODELER Sara West	DATE 8/29/2002	COMPANY NAME USDA-ARS
	DISPLAY Wind Speed	UNIT m/s	COMMENTS
	AVG. WIND SPEED 4.47 m/s	CALM WINDS 5.38%	
	ORIENTATION Direction (blowing from)	PLOT YEAR-DATE-TIME 1961 Feb 1 - Feb 29 Midnight - 11 PM	

ATTACHMENT NO. 19

SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN

Technical Report 1.1
Section 7. Sewage Sludge Solids Management Plan

Interim I Phase - Capacity of Digester

Design Flow	0.12 MGD Influent Flow
Minimum Retention Time	40 days
Digester Volume	5,040 ft ³
Digester Dimensions	2 @ 20' length x 12' width x 10.5' SWD
Side Water Depth	10.5 ft.
Digester Sludge Retention Time	40 days

CBOD5 Removal	Influent concentration	350.0 mg/l
	Effluent concentration	10.0 mg/l
	Net removal	340.0 mg/l

Solids Generated	100% Flow	75% Flow	50% Flow	25% Flow
Pounds BOD5/day removed	340	255	170	85
Pounds of dry sludge produced*	116	87	58	29
Pounds of wet sludge produced**	4,628	3,471	2,314	1,157
Volume of wet sludge produced in gals.	556	417	278	139
Volume of wet sludge produced in ft ³	74	56	37	19

*Assuming 0.340 pounds of dry sludge produced per pound of BOD5 removed.

**Assuming 2.5% solids.

MLSS operating range = 3000 mg/l

Settled sludge from the clarifier will be wasted to the digesters. At the digesters, the sludge is further thickened by decanting mechanisms.

Removal Schedule (days)	100% Flow	75% Flow	50% Flow	25% Flow
Days between sludge removal	68	90	136	271

After thickening, the sludge is periodically transported by Magna Flow Environmental (Hauler Registration #21484) to the Mt. Houston Road WWTP Sludge Processing Site (TCEQ Permit No. 0011154001).

Technical Report 1.1
Section 7. Sewage Sludge Solids Management Plan

Interim II Phase - Capacity of Digester

Design Flow	1.05 MGD Influent Flow
Minimum Retention Time	40 days
Digester Volume	15,120 ft ³
Digester Dimensions	2 @ 60' length x 12' width x 10.5' SWD
Side Water Depth	10.5 ft.
Digester Sludge Retention Time	40 days

CBOD5 Removal	Influent concentration	350.0 mg/l
	Effluent concentration	10.0 mg/l
	Net removal	340.0 mg/l

Solids Generated	100% Flow	75% Flow	50% Flow	25% Flow
Pounds BOD5/day removed	2,977	2,233	1,489	744
Pounds of dry sludge produced*	1,012	759	506	253
Pounds of wet sludge produced**	40,492	30,369	20,246	10,123
Volume of wet sludge produced in gals.	4,867	3,650	2,433	1,217
Volume of wet sludge produced in ft ³	651	488	325	163

*Assuming 0.340 pounds of dry sludge produced per pound of BOD5 removed.

**Assuming 2.5% solids.

MLSS operating range = 3,000-5,000 mg/l

Settled sludge from the clarifier will be wasted to the digesters. At the digesters, the sludge is further thickened by decanting mechanisms.

Removal Schedule (days)	100% Flow	75% Flow	50% Flow	25% Flow
Days between sludge removal	23	31	46	93

After thickening, the sludge is periodically transported by Magna Flow Environmental (Hauler Registration #21484) to the Mt. Houston Road WWTP Sludge Processing Site (TCEQ Permit No. 0011154001).

Technical Report 1.1
Section 7. Sewage Sludge Solids Management Plan

Ultimate Phase - Capacity of Digester

Design Flow	2.80 MGD Influent Flow
Minimum Retention Time	40 days
Digester Volume	50,000 ft ³
Digester Dimensions	4 @ 25' length x 40' width x 12.5' SWD
Side Water Depth	12.5 ft.
Digester Sludge Retention Time	40 days

CBOD5 Removal	Influent concentration	350.0 mg/l
	Effluent concentration	10.0 mg/l
	Net removal	340.0 mg/l

Solids Generated	100% Flow	75% Flow	50% Flow	25% Flow
Pounds BOD5/day removed	7,940	5,955	3,970	1,985
Pounds of dry sludge produced*	2,699	2,025	1,350	675
Pounds of wet sludge produced**	107,980	80,985	53,990	26,995
Volume of wet sludge produced in gals.	12,978	9,734	6,489	3,245
Volume of wet sludge produced in ft ³	1,735	1,301	867	434

*Assuming 0.340 pounds of dry sludge produced per pound of BOD5 removed.

**Assuming 2.5% solids.

MLSS operating range = 3,000-5,000 mg/l

Settled sludge from the clarifier will be wasted to the digesters. At the digesters, the sludge is further thickened by decanting mechanisms.

Removal Schedule (days)	100% Flow	75% Flow	50% Flow	25% Flow
Days between sludge removal	29	38	58	115

After thickening, the sludge is periodically transported by Magna Flow Environmental (Hauler Registration #21484) to the Mt. Houston Road WWTP Sludge Processing Site (TCEQ Permit No. 0011154001).

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 to 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: [Click to enter text.](#)

A. Receiving water type

Identify the appropriate description of the receiving waters.

- ☐ Stream
- ☐ Freshwater Swamp or Marsh
- ☒ Lake or Pond

Surface area, in acres: 0.77 ac

Average depth of the entire water body, in feet: 3.3 ft

Average depth of water body within a 500-foot radius of discharge point, in feet: 3.3 ft

- ☐ Man-made Channel or Ditch
- ☐ Open Bay
- ☐ Tidal Stream, Bayou, or Marsh
- ☐ Other, specify: [Click to enter text.](#)

B. Flow characteristics

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

- ☐ Intermittent - dry for at least one week during most years
- ☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses
- ☐ Perennial - normally flowing

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

- ☐ USGS flow records
- ☐ Historical observation by adjacent landowners
- ☐ Personal observation
- ☐ Other, specify: [Click to enter text.](#)

C. Downstream perennial confluences

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

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.

At approximately 1.5 miles downstream of the discharge point, the receiving water characteristics transition from a series of man-made detention basins and channels connected by reinforced concrete box culverts to the natural watershed of the San Jacinto River.

E. Normal dry weather characteristics

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

The detention pond does not yet exist. It will be excavated and connected to a series of existing detention basins before construction of the proposed WWTP and outfall.

Date and time of observation: 2/10/2025, 3:00 pm

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.

- | | |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Oil field activities | <input type="checkbox"/> Urban runoff |
| <input type="checkbox"/> Upstream discharges | <input type="checkbox"/> Agricultural runoff |
| <input type="checkbox"/> Septic tanks | <input checked="" type="checkbox"/> Other(s), specify: <u>immediate receiving water of the proposed discharge site does not yet exist</u> |

B. Waterbody uses

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

- | | |
|------------------------------------------------|----------------------------------------------------------------------------------|
| <input type="checkbox"/> Livestock watering | <input type="checkbox"/> Contact recreation |
| <input type="checkbox"/> Irrigation withdrawal | <input type="checkbox"/> Non-contact recreation |
| <input type="checkbox"/> Fishing | <input type="checkbox"/> Navigation |
| <input type="checkbox"/> Domestic water supply | <input type="checkbox"/> Industrial water supply |
| <input type="checkbox"/> Park activities | <input checked="" type="checkbox"/> Other(s), specify: <u>does not yet exist</u> |

C. Waterbody aesthetics

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION

WORKSHEET 2.1: STREAM PHYSICAL CHARACTERISTICS

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

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

Section 1. General Information (Instructions Page 65)

Date of study: February 10, 2025 Time of study: 3:00 pm

Stream name: N/A

Location: 29.8997, -95.1696

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

☐ Perennial ☐ Intermittent with perennial pools

Section 2. Data Collection (Instructions Page 65)

Number of stream bends that are well defined: N/A

Number of stream bends that are moderately defined: N/A

Number of stream bends that are poorly defined: N/A

Number of riffles: N/A

Evidence of flow fluctuations (check one):

☐ Minor ☐ moderate ☐ severe

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

Detention pond has not yet been cleared or excavated. Excavation will occur prior to construction of the proposed WWTP and outfall.

Stream transects

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

Table 2.1(1) - Stream Transect Records

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

Section 3. Summarize Measurements (Instructions Page 65)

Streambed slope of entire reach, from USGS map in feet/feet: N/A

Approximate drainage area above the most downstream transect (from USGS map or county highway map, in square miles): N/A

Length of stream evaluated, in feet: N/A

Number of lateral transects made: N/A

Average stream width, in feet: N/A

Average stream depth, in feet: N/A

Average stream velocity, in feet/second: N/A

Instantaneous stream flow, in cubic feet/second: N/A

Indicate flow measurement method (type of meter, floating chip timed over a fixed distance, etc.): N/A

Size of pools (large, small, moderate, none): N/A

Maximum pool depth, in feet: N/A

DOMESTIC WASTEWATER PERMIT APPLICATION

WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works.

Section 1. All POTWs (Instructions Page 87)

A. Industrial users (IUs)

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

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

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: N/A

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: N/A

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: N/A

B. Treatment plant interference

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

☐ Yes ☒ No

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

N/A

C. Treatment plant pass through

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

☐ Yes ☒ No

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

N/A

D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

If **yes**, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☒ No

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

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

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 87)

A. Substantial modifications

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

☐ Yes ☒ No

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

N/A

B. Non-substantial modifications

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

☐ Yes ☒ No

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

N/A

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date
N/A				

D. Industrial user interruptions

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

☐ Yes ☒ No

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

N/A

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 88)

A. General information

Company Name: N/A

SIC Code: Click to enter text.

Contact name: Click to enter text.

Address: Click to enter text.

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

Telephone number: Click to enter text.

Email address: Click to enter text.

B. Process information

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

N/A

C. Product and service information

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

N/A

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

Category: Subcategories: N/A

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

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

F. Industrial user interruptions

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

☐ Yes ☒ No

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

N/A

Abesha Michael

From: AnnMarie Burns (IDS) <ABurns@idseg.com>
Sent: Friday, April 11, 2025 11:48 AM
To: Abesha Michael
Cc: Vernon Webb (IDS); Daniel Ringold (Schwartz Page & Harding)
Subject: RE: Application for Proposed Permit No. WQ0016745001 - Notice of Deficiency Letter
Attachments: AffectedLandowner_11X17 Revised 4-11-2025.pdf; Landowner List Labels Revised 4-11-2025.docx; Affected Landowner Cross-Reference List Revised 4-11-2025.pdf; TX SOS Info 2025.04.11.pdf

Good morning,

Thanks for your phone call yesterday. As discussed, please see attached updated Affected Landowners Map, Cross-Reference List, and labels.

Per our conversation, MRA Northeast, L.P. and MRA Northeast #2, L.P. are two separate legal entities. I've also attached documentation from the Texas Secretary of State website for the two organizations showing separate filing numbers, dates of filing, and tax IDs.

Please let me know if you have any further questions. Thanks,



AnnMarie Burns, E.I.T.
Design Engineer

13430 Northwest Freeway, Suite 700, Houston, Texas 77040

Main: 713.462.3178 | Direct: 832.590.7153

ABurns@idseg.com

[Website](#) | [Facebook](#) | [LinkedIn](#)

TxEng Firm 2726 | TxSurv Firm 10110700

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From: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Sent: Monday, April 7, 2025 11:47 AM
To: AnnMarie Burns (IDS) <ABurns@idseg.com>
Subject: RE: Application for Proposed Permit No. WQ0016745001 - Notice of Deficiency Letter

[EXTERNAL EMAIL]

Good morning,

I received your response. The letter mailed out before I received the response,

Thank you,



Abesha H. Michael
Applications Review & Processing Team
Water Quality Division Support Section
Water Quality Division, MC 148
PO Box 13087
Austin, Texas 78711
Phone: o: 512-239-4912
Email: abesha.michael@tceq.texas.gov

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

From: AnnMarie Burns (IDS) <ABurns@idseg.com>
Sent: Monday, April 7, 2025 8:53 AM
To: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Cc: Vernon Webb (IDS) <VWebb@idseg.com>
Subject: RE: Application for Proposed Permit No. WQ0016745001 - Notice of Deficiency Letter

Good morning,
We received the attached notice stating that you had not received a complete response to the Notice of Deficiency email sent March 11, 2025.
Could you let us know what you are still missing? I believe I have responded to all of the emails I have received.

Thanks,



AnnMarie Burns, E.I.T.
Design Engineer

13430 Northwest Freeway, Suite 700, Houston, Texas 77040

Main: 713.462.3178 | Direct: 832.590.7153

ABurns@idseg.com

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From: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Sent: Friday, April 4, 2025 1:47 PM
To: AnnMarie Burns (IDS) <ABurns@idseg.com>
Subject: RE: Application for Proposed Permit No. WQ0016745001 - Notice of Deficiency Letter

[EXTERNAL EMAIL]

Thank you,



Abesha H. Michael
Applications Review & Processing Team
Water Quality Division Support Section
Water Quality Division, MC 148
PO Box 13087
Austin, Texas 78711
Phone: o: 512-239-4912
Email: abesha.michael@tceq.texas.gov

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From: AnnMarie Burns (IDS) <ABurns@idseg.com>
Sent: Friday, April 4, 2025 12:05 PM
To: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Cc: Vernon Webb (IDS) <VWebb@idseg.com>; Daniel Ringold (Schwartz Page & Harding) <dringold@sphllp.com>
Subject: RE: Application for Proposed Permit No. WQ0016745001 - Notice of Deficiency Letter

Good afternoon,
Please see attached updated Landowners Map, Cross-Reference List, and labels.

Let us know if anything further is needed to declare this application administratively complete. Thanks,



AnnMarie Burns, E.I.T.
Design Engineer

13430 Northwest Freeway, Suite 700, Houston, Texas 77040
Main: 713.462.3178 | Direct: 832.590.7153

ABurns@idseg.com

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From: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Sent: Tuesday, April 1, 2025 4:05 PM
To: AnnMarie Burns (IDS) <ABurns@idseg.com>
Cc: Vernon Webb (IDS) <VWebb@idseg.com>; Daniel Ringold (Schwartz Page & Harding) <dringold@sphllp.com>
Subject: RE: Application for Proposed Permit No. WQ0016745001 - Notice of Deficiency Letter

[EXTERNAL EMAIL]

Good afternoon,
Thank you for the affected landowners map, list, and labels. However, when the landowner is the co-applicant, we need to notify all the surrounding landowners of the co-applicant property. Please submit the complete cross-referenced mailing and mailing labels asap.
Thank you,



Abesha H. Michael
Applications Review & Processing Team
Water Quality Division Support Section
Water Quality Division, MC 148
PO Box 13087
Austin, Texas 78711
Phone: o: 512-239-4912
Email: abesha.michael@tceq.texas.gov

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

From: AnnMarie Burns (IDS) <ABurns@idseg.com>
Sent: Wednesday, March 26, 2025 1:58 PM
To: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Cc: Vernon Webb (IDS) <VWebb@idseg.com>; Daniel Ringold (Schwartz Page & Harding) <dringold@sphllp.com>
Subject: RE: Application for Proposed Permit No. WQ0016745001 - Notice of Deficiency Letter

Good afternoon,
Please see attached response & related attachments to the Notice of Deficiency letter sent on March 11, 2025. A complete revised permit application was also uploaded to the TCEQ file transfer system.

Please let us know if there is any further information we can provide. Thank you,



AnnMarie Burns, E.I.T.
Design Engineer

13430 Northwest Freeway, Suite 700, Houston, Texas 77040
Main: 713.462.3178 | Direct: 832.590.7153

ABurns@idseg.com

[Website](#) | [Facebook](#) | [Linkedin](#)

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From: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Sent: Tuesday, March 11, 2025 1:21 PM
To: Lindsey Whatley (IDS) <LWhatley@idseg.com>
Subject: FW: Application for Proposed Permit No. WQ0016745001 - Notice of Deficiency Letter

[EXTERNAL EMAIL]

Forwarded

From: Abesha Michael
Sent: Tuesday, March 11, 2025 1:00 PM
To: vwebb@idseg.com
Cc: dringold@sphllp.com
Subject: Application for Proposed Permit No. WQ0016745001 - Notice of Deficiency Letter

Dear Mr. Webb II:

The attached Notice of Deficiency letter sent on March 11, 2025, requests additional information needed to declare the application administratively complete. Please send the complete response to my attention by March 25, 2025.

Thank you,



Abesha H. Michael
Applications Review & Processing Team
Water Quality Division Support Section
Water Quality Division, MC 148
PO Box 13087
Austin, Texas 78711
Phone: o: 512-239-4912
Email: abesha.michael@tceq.texas.gov

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www.tceq.texas.gov/customerurvey

Affected Landowner Cross-Reference List

ID	Owner	Mailing Address	City	State	Zip Code
1	GENERATION PARK MANAGEMENT DISTRICT (APPLICANT)	1300 POST OAK BLVD STE 2400	HOUSTON	TX	77056-3044
2	MRA NORTHEAST LP (CO-APPLICANT)	250 ASSAY ST, STE 200	HOUSTON	TX	77044-3506
3	MRA NORTHEAST #2 LP	250 ASSAY ST, STE 200	HOUSTON	TX	77044-3506
4	KINDER MORGAN TEJAS PIPELINE LP	500 DALLAS ST, STE 1000	HOUSTON	TX	77002-4718
5	COUNTY OF HARRIS	PO BOX 1525	HOUSTON	TX	77251-1525
6	HARRIS COUNTY MUD NO 427	1300 POST OAK BLVD STE 2400	HOUSTON	TX	77056-3078
7	TRAHAN LEONA M	12630 AQUEDUCT RD	HOUSTON	TX	77044-5220
8	RODRIGUEZ LUIS M	12530 AQUEDUCT RD	HOUSTON	TX	77044-5218
9	WHEELER RAY L & IMELDA	12310 AQUEDUCT RD	HOUSTON	TX	77044-5214
10	BEJAR HILDA	12222 AQUEDUCT RD	HOUSTON	TX	77044-5212
11	ALESSI ROBERTO	15010 SUMMER KNOLL LN	HOUSTON	TX	77044-2596
12	ROMERO HUGO	11760 PADOK RD APT 37	HOUSTON	TX	77044-7203
13	GARCIA CELINO C	12216 AQUEDUCT RD	HOUSTON	TX	77044-5212
14	RAMIREZ FRANCISCO	12210 AQUEDUCT RD	HOUSTON	TX	77044-5212
15	CURRIE CASEY	7139 CRESTED QUAIL	SAN ANTONIO	TX	78250-7212
16	VAZQUEZ JOSE A	12120 AQUEDUCT RD	HOUSTON	TX	77044-5210
17	MILTON THEODORE J	12712 W LAKE HOUSTON PKWY STE B	HOUSTON	TX	77044-6469
18	HURTADO RAMIRO & GUADALUPE	12112 AQUEDUCT RD	HOUSTON	TX	77044-5210
19	OLIVAS HECTOR M & IRMA	12102 AQUEDUCT RD	HOUSTON	TX	77044-5210
20	J & R GROUP LLC	12930 PECAN SHORES DR	HOUSTON	TX	77044-1873
21	HURTADO ERNESTO	12112 AQUEDUCT RD	HOUSTON	TX	77044-5210
22	RODRIGUEZ JOSE N	2218 4TH ST	GALENA PARK	TX	77547-2704
23	CRUZ JOSE LUIS & FLOR ESTELA	20010 DEERSLAYER	CROSBY	TX	77532
24	FRYER LONNIE & JUDITH	12206 AQUEDUCT RD	HOUSTON	TX	77044-5212
25	HURTADO ESTEVAN	12112 AQUEDUCT RD	HOUSTON	TX	77044-5210
26	GARZA DANIEL	11976 AQUEDUCT RD	HOUSTON	TX	77044-5206
27	DE LEON GUSTAVO	11964 AQUEDUCT RD	HOUSTON	TX	77044-5206
28	BENITEZ ELMER	15240 GARRETT RD	HOUSTON	TX	77044-5846
29	GARZA HUMBERTO	11952 AQUEDUCT RD	HOUSTON	TX	77044-5206

30	BENITEZ ELMER & DAMARY	15240 GARRETT RD	HOUSTON	TX	77044-5846
31	CAVAZOS IRENE ZORAIDA	7531 FALL CREEK BEND	HUMBLE	TX	77396-3555
32	CEJA CARLOS	11940 AQUEDUCT RD	HOUSTON	TX	77044-5206
33	HERNANDEZ SOCORRO TAPIA	11938 AQUEDUCT RD	HOUSTON	TX	77044-5206
34	SANTILLAN MARCO & LINDA	11928 AQUEDUCT RD	HOUSTON	TX	77044-5206
35	VILLALPANDO KAREN R	PO BOX 55362	HOUSTON	TX	77044-5111
36	GUZMAN KATHRYN E & REYNALDO	11934 AQUEDUCT RD	HOUSTON	TX	77044-5206
37	HEIL EDWIN D & RHONDA V	11924 AQUEDUCT RD	HOUSTON	TX	77044-5206
38	FOUR BROTHERS LLC	PO BOX 96494	HOUSTON	TX	77213-6494
39	FERNANDEZ JAIME	11952 AQUEDUCT RD	HOUSTON	TX	77044
40	MACIAS CRISOFORO	12626 GREEN RIVER DR	HOUSTON	TX	77044-2308
41	RICHISON SHARON D	11900 AQUEDUCT RD	HOUSTON	TX	77044-5206
42	PENNINGTON ANGELA M	9839 FM 1511	BUFFALO	TX	75831-5846
43	CONLON JOHN	1481 WHITE WATER DR	NEW BRAUNFEL	TX	78132-3221
44	STAUFFER REAL ESTATE LLC	14205 GARRETT RD	HOUSTON	TX	77044-6430
45	TEXAS REAL ESTATE CAPITAL FUND II LLC	PO BOX 27022	HOUSTON	TX	77227-7022
46	JOHNSTON DONALD RAY JR C/O PEGGY DENISE KEETON JOHNSTON ESTATE OF	13819 GARRETT RD	HOUSTON	TX	77044-6421
47	PROJECT CHANNEL LAND LLC	11750 KATY FWY STE 420	HOUSTON	TX	77079-3122
48	UNITED THERAPEUTICS CORPORATION	55 T.W. ALEXANDER DRIVE	RESEARCH TRIAN	NC	27709
49	TEXAS PARKS & WILDLIFE DEPARTMENT C/O HARRIS COUNTY ROW DEPT	PO BOX 1525	HOUSTON	TX	77251-1525
50	TEXAS PARKS & WILDLIFE DEPARTMENT	4200 SMITH SCHOOL RD	AUSTIN	TX	78744-3218
51	HART RAMONA	11739 LONG PLAY LN	HOUSTON	TX	77044-5247
52	TRAHAN MILDRED W	11730 LONG PLAY LN	HOUSTON	TX	77044-5248
53	DEAJON SHANNON C	11730 LONG PLAY LN	HOUSTON	TX	77044-5248
54	GARZA ERASMO	14018 MEADOWLAKE CT	HOUSTON	TX	77044-6174
55	SPEER MARVIN	13623 GAME COVE LN	HOUSTON	TX	77044-5231
56	SPEER MARGARET E	11630 LONG PLAY LN	HOUSTON	TX	77044-5246
57	CERDA EDWIN B	11622 LONG PLAY LN	HOUSTON	TX	77044-5246
58	GUY ANTHONY HARMAN	11618 LONG PLAY LN	HOUSTON	TX	77044-5246
59	REYES LARRY	6726 HAWTHORNE FALLS LN	HOUSTON	TX	77049-3876
60	MOUTON MATTHEW K & DELIA F	11610 LONG PLAY LN #5	HOUSTON	TX	77044-5246

61	ALLEE PROPERTIES LLC	4511 UPPER OXBOW TRACE	FULSHEAR	TX	77441-4512
62	UNITED STATES OF AMERICA	PO BOX 1229	GALVESTON	TX	77553-1229
63	CHILLES BRETT	220 CARUTHERS LN	HOUSTON	TX	77024-6812
64	SKLAR MICHAEL A	3414 OVERBROOK LN	HOUSTON	TX	77027-4140
65	FRM MRA HOLDINGS #1 LTD	250 ASSAY ST STE 200	HOUSTON	TX	77044-3506
66	DEBOBEN CRISTINA MARIA	11006 HUNTERS PARK DR	HOUSTON	TX	77024
67	TAAFFE DINA	2428 SWIFT BLVD	HOUSTON	TX	77030-1806
68	CHILDRESS WENDIE S	3470 OVERBROOK LN	HOUSTON	TX	77027-4140
69	WOODSON VICKI G	5110 SAN FELIPE ST UNIT 251W	HOUSTON	TX	77056-3643
70	VAUGHN BARBARA H	2211 DUNRAVEN LN	HOUSTON	TX	77019-6601
71	DEBOBEN JOHN R III	11006 HUNTERS PARK DR	HOUSTON	TX	77024-5410
72	TAAFFE RYAN H	2428 SWIFT BLVD	HOUSTON	TX	77030-1806

MRA NORTHEAST #2 LP
C/O MCCORD DEVELOPMENT INC
250 ASSAY ST STE 200
HOUSTON TX 77044-3506

KINDER MORGAN TEJAS PIPELINE LP
500 DALLAS ST STE 1000
HOUSTON TX 77002-4718

COUNTY OF HARRIS
PO BOX 1525
HOUSTON TX 77251-1525

HARRIS COUNTY MUD NO 427
1300 POST OAK BLVD STE 2400
HOUSTON TX 77056-3078

LEONA M TRAHAN
12630 AQUEDUCT RD
HOUSTON TX 77044-5220

LUIS M RODRIGUEZ
12530 AQUEDUCT RD
HOUSTON TX 77044-5218

RAY L AND IMELDA WHEELER
12310 AQUEDUCT RD
HOUSTON TX 77044-5214

HILDA BEJAR
12222 AQUEDUCT RD
HOUSTON TX 77044-5212

ROBERTO ALESSI
15010 SUMMER KNOLL LN
HOUSTON TX 77044-2596

HUGO ROMERO
11760 PADOK RD APT 37
HOUSTON TX 77044-7203

CELINO C GARCIA
12216 AQUEDUCT RD
HOUSTON TX 77044-5212

FRANCISCO RAMIREZ
12210 AQUEDUCT RD
HOUSTON TX 77044-5212

CASEY CURRIE
7139 CRESTED QUAIL
SAN ANTONIO TX 78250-7212

JOSE A VAZQUEZ
12120 AQUEDUCT RD
HOUSTON TX 77044-5210

THEODORE J MILTON
12712 W LAKE HOUSTON PKWY STE
B
HOUSTON TX 77044-6469

RAMIRO AND GUADALUPE
HURTADO
12112 AQUEDUCT RD
HOUSTON TX 77044-5210

HECTOR M AND IRMA OLIVAS
12102 AQUEDUCT RD
HOUSTON TX 77044-5210

J & R GROUP LLC
12930 PECAN SHORES DR
HOUSTON TX 77044-1873

ERNESTO HURTADO
12112 AQUEDUCT RD
HOUSTON TX 77044-5210

JOSE N RODRIGUEZ
2218 4TH ST
GALENA PARK TX 77547-2704

JOSE LUIS AND FLOR ESTELA CRUZ
20010 DEERSLAYER
CROSBY TX 77532

LONNIE AND JUDITH FRYER
12206 AQUEDUCT RD
HOUSTON TX 77044-5212

ESTEVAN HURTADO
12112 AQUEDUCT RD
HOUSTON TX 77044-5210

DANIEL GARZA
11976 AQUEDUCT RD
HOUSTON TX 77044-5206

GUSTAVO DE LEON
11964 AQUEDUCT RD
HOUSTON TX 77044-5206

ELMER BENITEZ
15240 GARRETT RD
HOUSTON TX 77044-5846

HUMBERTO GARZA
11952 AQUEDUCT RD
HOUSTON TX 77044-5206

ELMER AND DAMARY BENITEZ
15240 GARRETT RD
HOUSTON TX 77044-5846

IRENE ZORAIDA CAVAZOS
7531 FALL CREEK BEND
HUMBLE TX 77396-3555

CARLOS CEJA
11940 AQUEDUCT RD
HOUSTON TX 77044-5206

SOCORRO TAPIA HERNANDEZ
11938 AQUEDUCT RD
HOUSTON TX 77044-5206

MARCO AND LINDA SANTILLAN
11928 AQUEDUCT RD
HOUSTON TX 77044-5206

KAREN R VILLALPANDO
PO BOX 55362
HOUSTON TX 77044-5111

KATHRYN E AND REYNALDO
GUZMAN
11934 AQUEDUCT RD
HOUSTON TX 77044-5206

EDWIN D AND RHONDA V HEIL
11924 AQUEDUCT RD
HOUSTON TX 77044-5206

FOUR BROTHERS LLC
PO BOX 96494
HOUSTON TX 77213-6494

JAIME FERNANDEZ
11952 AQUEDUCT RD
HOUSTON TX 77044

CRISOFORO MACIAS
12626 GREEN RIVER DR
HOUSTON TX 77044-2308

SHARON D RICHISON
11900 AQUEDUCT RD
HOUSTON TX 77044-5206

ANGELA M PENNINGTON
9839 FM 1511
BUFFALO TX 75831-5846

JOHN CONLON
1481 WHITE WATER DR
NEW BRAUNFELS TX 78132-3221

STAUFFER REAL ESTATE LLC
14205 GARRETT RD
HOUSTON TX 77044-6430

TEXAS REAL ESTATE CAPITAL FUND II
LLC
PO BOX 27022
HOUSTON TX 77227-7022

DONALD RAY JOHNSTON JR
C/O ESTATE OF PEGGY DENISE
KEETON JOHNSTON
13819 GARRETT RD
HOUSTON TX 77044-6421
TEXAS PARKS & WILDLIFE
DEPARTMENT
C/O HARRIS COUNTY ROW DEPT
PO BOX 1525
HOUSTON TX 77251-1525
MILDRED W TRAHAN
11730 LONG PLAY LN
HOUSTON TX 77044-5248

PROJECT CHANNEL LAND LLC
11750 KATY FWY STE 420
HOUSTON TX 77079-3122

UNITED THERAPEUTICS
CORPORATION
55 T W ALEXANDER DRIVE
RESEARCH TRIANGLE PARK NC
27709
RAMONA HART
11739 LONG PLAY LN
HOUSTON TX 77044-5247

TEXAS PARKS & WILDLIFE
DEPARTMENT
4200 SMITH SCHOOL RD
AUSTIN TX 78744-3218

SHANNON C DEAJON
11730 LONG PLAY LN
HOUSTON TX 77044-5248

ERASMO GARZA
14018 MEADOWLAKE CT
HOUSTON TX 77044-6174

MARVIN SPEER
13623 GAME COVE LN
HOUSTON TX 77044-5231

MARGARET E SPEER
11630 LONG PLAY LN
HOUSTON TX 77044-5246

EDWIN B CERDA
11622 LONG PLAY LN
HOUSTON TX 77044-5246

ANTHONY HARMAN GUY
11618 LONG PLAY LN
HOUSTON TX 77044-5246

LARRY REYES
6726 HAWTHORNE FALLS LN
HOUSTON TX 77049-3876

MATTHEW K AND DELIA F MOUTON
11610 LONG PLAY LN #5
HOUSTON TX 77044-5246

ALLEE PROPERTIES LLC
4511 UPPER OXBOW TRACE
FULSHEAR TX 77441-4512

UNITED STATES OF AMERICA
PO BOX 1229
GALVESTON TX 77553-1229

BRETT CHILLES
220 CARUTHERS LN
HOUSTON TX 77024-6812

MICHAEL A SKLAR
3414 OVERBROOK LN
HOUSTON TX 77027-4140

FRM MRA HOLDINGS #1 LTD
250 ASSAY ST STE 200
HOUSTON TX 77044-3506

CRISTINA MARIA DEBOBEN
11006 HUNTERS PARK DR
HOUSTON TX 77024

DINA TAAFFE
2428 SWIFT BLVD
HOUSTON TX 77030-1806

WENDIE S CHILDRESS
3470 OVERBROOK LN
HOUSTON TX 77027-4140

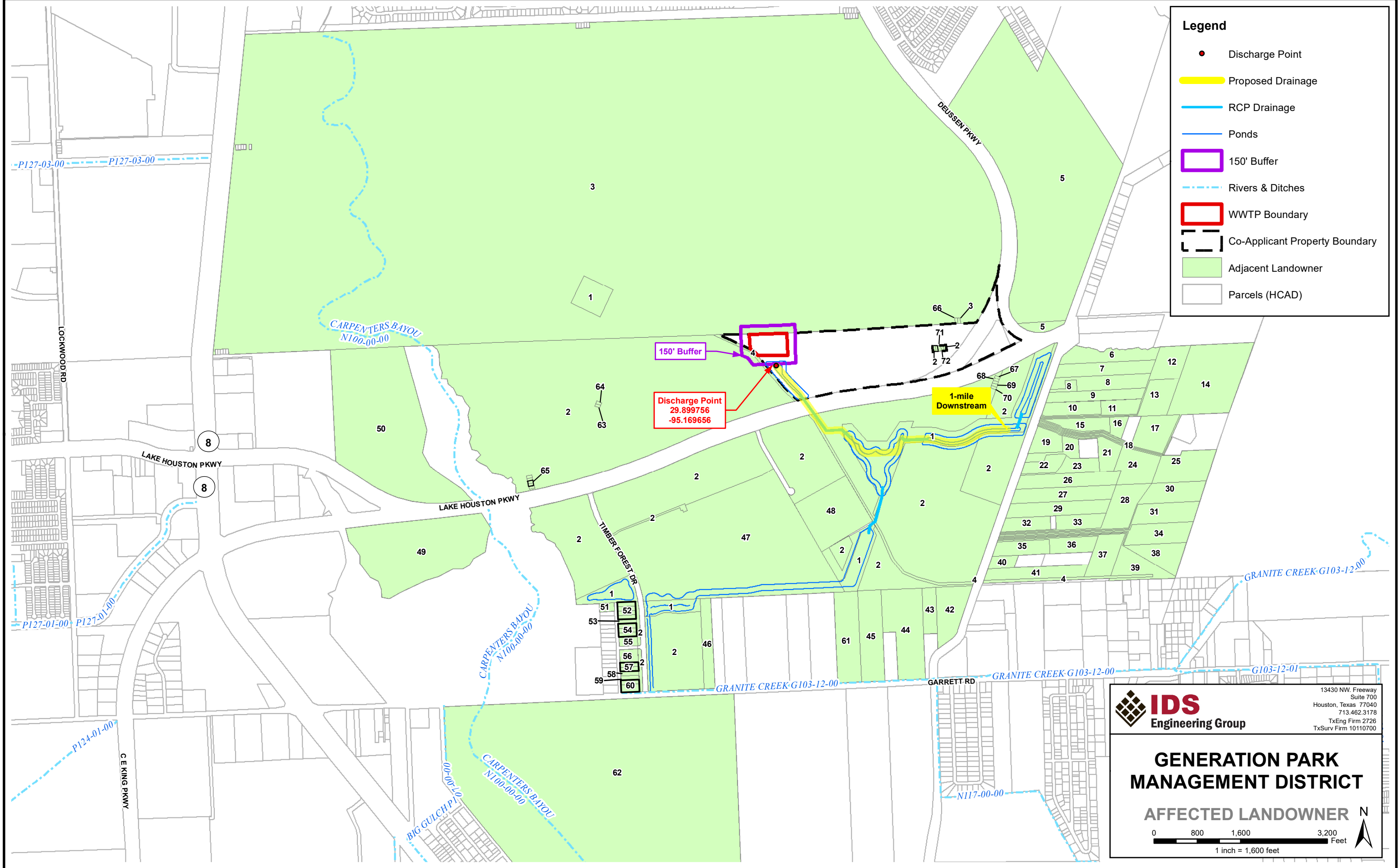
VICKI G WOODSON
5110 SAN FELIPE ST UNIT 251W
HOUSTON TX 77056-3643

BARBARA H VAUGHN
2211 DUNRAVEN LN
HOUSTON TX 77019-6601

JOHN R DEBOBEN III
11006 HUNTERS PARK DR
HOUSTON TX 77024-5410

RYAN H TAAFFE
2428 SWIFT BLVD
HOUSTON TX 77030-1806

IDS Engineering Group \\hougisd1\Projects\13001\339-012-04_GPMID2024_TPDES_GPEWWTP\AffectedLandowner_11X17.mxd Plotted: 4/11/2025 at 10:55:09 AM by VTrevino



Legend

- Discharge Point
- Proposed Drainage
- RCP Drainage
- Ponds
- 150' Buffer
- Rivers & Ditches
- WWTP Boundary
- Co-Applicant Property Boundary
- Adjacent Landowner
- Parcels (HCAD)

IDS
Engineering Group

13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

**GENERATION PARK
MANAGEMENT DISTRICT**

AFFECTED LANDOWNER

0 800 1,600 3,200 Feet
1 inch = 1,600 feet

N

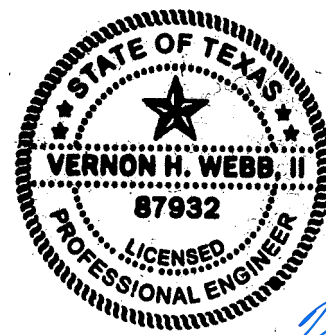
DOMESTIC WASTEWATER PERMIT RENEWAL APPLICATION – ELECTRONIC COPY

Texas Commission on Environmental Quality

Generation Park Management District

IDS Project No. 1339-012-04

February 2025



Vern H. Webb II
3/5/2025

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- Attachment No. 3 – Public Involvement Plan Form (Administrative Report 1.0, Section 8.G.)
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Worksheet 6.0: Industrial Waste Contribution



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: Generation Park Management District

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

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

	Y	N		Y	N
Administrative Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original USGS Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Administrative Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Affected Landowners Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SPIF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landowner Disk or Labels	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Core Data Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Buffer Zone Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Public Involvement Plan Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flow Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technical Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technical Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original Photographs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Design Calculations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Solids Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Balance	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 4.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 5.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 6.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Worksheet 7.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

For TCEQ Use Only

Segment Number _____ County _____
Expiration Date _____ Region _____
Permit Number _____



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**DOMESTIC WASTEWATER PERMIT APPLICATION
ADMINISTRATIVE REPORT 1.0**

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

Section 1. Application Fees (Instructions Page 26)

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

Flow	New/Major Amendment	Renewal
<0.05 MGD	\$350.00 <input type="checkbox"/>	\$315.00 <input type="checkbox"/>
≥0.05 but <0.10 MGD	\$550.00 <input type="checkbox"/>	\$515.00 <input type="checkbox"/>
≥0.10 but <0.25 MGD	\$850.00 <input type="checkbox"/>	\$815.00 <input type="checkbox"/>
≥0.25 but <0.50 MGD	\$1,250.00 <input type="checkbox"/>	\$1,215.00 <input type="checkbox"/>
≥0.50 but <1.0 MGD	\$1,650.00 <input type="checkbox"/>	\$1,615.00 <input type="checkbox"/>
≥1.0 MGD	\$2,050.00 <input checked="" type="checkbox"/>	\$2,015.00 <input type="checkbox"/>

Minor Amendment (for any flow) \$150.00 ☐

Payment Information:

Mailed Check/Money Order Number: [Click to enter text.](#)

Check/Money Order Amount: [Click to enter text.](#)

Name Printed on Check: [Click to enter text.](#)

EPAY Voucher Number: 751697/751698

Copy of Payment Voucher enclosed? Yes ☒

Section 2. Type of Application (Instructions Page 26)

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

- ☒ Publicly-Owned Domestic Wastewater
☐ Privately-Owned Domestic Wastewater
☐ Conventional Wastewater Treatment

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

- ☐ Active ☒ Inactive

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

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

d. Check the box next to the appropriate application type

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

e. For amendments or modifications, describe the proposed changes: [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-Applcant 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?

Generation Park Management District

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

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

CN: 604386060

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: Neuhaus, Charles W.

Title: Board President

Credential: [Click to enter text.](#)

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

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

MRA Northeast, L.P.

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

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

CN: Click to enter text.

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

Prefix: Mr.

Last Name, First Name: McCord, Frederick R.

Title: President

Credential: Click to enter text.

Provide a brief description of the need for a co-permittee: The co-applicant is the current owner of the land where the treatment facility will be located.

C. Core Data Form

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

Section 4. Application Contact Information (Instructions Page 27)

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

A. Prefix: Mr.

Last Name, First Name: Webb II, Vernon

Title: District Engineer

Credential: P.E.

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Fwy, Suite 700 City, State, Zip Code: Houston, TX 77040

Phone No.: 832-590-7210

E-mail Address: vwebb@idseg.com

Check one or both: ☒ Administrative Contact ☒ Technical Contact

B. Prefix: Mr.

Last Name, First Name: Ringold, Daniel

Title: District Attorney

Credential: Click to enter text.

Organization Name: Schwartz, Page & Harding, L.L.P.

Mailing Address: 1300 Post Oak Blvd, Suite 2400 City, State, Zip Code: Houston, TX 77056

Phone No.: 713-623-4531

E-mail Address: dringold@sphllp.com

Check one or both: ☒ Administrative Contact ☐ Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

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

A. Prefix: Mr.

Last Name, First Name: Neuhaus, Charles W.

Title: Board President

Credential: Click to enter text.

Organization Name: c/o Schwartz, Page & Harding, L.L.P.

Mailing Address: 1300 Post Oak Blvd, Suite 2400 City, State, Zip Code: Houston, TX 77056

Phone No.: (713) 623-4531

E-mail Address: [Click to enter text.](#)

B. Prefix: Mr.

Last Name, First Name: Deboben III, John R.

Title: Board Vice President

Credential: [Click to enter text.](#)

Organization Name: c/o Schwartz, Page & Harding, L.L.P.

Mailing Address: 1300 Post Oak Blvd, Suite 2400

City, State, Zip Code: Houston, TX 77056

Phone No.: (713) 623-4531

E-mail Address: [Click to enter text.](#)

Section 6. Billing Contact Information (Instructions Page 27)

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

Prefix: Ms.

Last Name, First Name: Colondres, Cynthia

Title: District Bookkeeper

Credential: [Click to enter text.](#)

Organization Name: Municipal Accounts & Consulting, L.P.

Mailing Address: 1281 Brittmoore Rd.

City, State, Zip Code: Houston, TX 77043

Phone No.: (713) 623-4539

E-mail Address: ccolondres@municipalaccounts.com

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

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

Prefix: Ms.

Last Name, First Name: Chapa, Vanessa

Title: Compliance Manager

Credential: [Click to enter text.](#)

Organization Name: Inframark

Mailing Address: 2002 W Grand Pkwy N., Suite 100

City, State, Zip Code: Katy, TX, 77449

Phone No.: (281) 877-2612

E-mail Address: vanessa.chapa@inframark.com

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Ms.

Last Name, First Name: Riley, Vonda

Title: Administrative Assistant

Credential: [Click to enter text.](#)

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Fwy, Suite 700

City, State, Zip Code: Houston, TX 77040

Phone No.: (713) 462-3178

E-mail Address: vriley@idseg.com

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

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

☒ E-mail Address

☐ Fax

☐ Regular Mail

C. Contact permit to be listed in the Notices

Prefix: Mr.

Last Name, First Name: Webb II, Vernon

Title: District Engineer

Credential: P.E.

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Fwy, Suite 700 City, State, Zip Code: Houston, TX 77040

Phone No.: (832) 590-7210

E-mail Address: vwebb@idseg.com

D. Public Viewing Information

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

Public building name: TCEQ Region 12 Office

Location within the building: Reception Area

Physical Address of Building: 5425 Polk Street

City: Houston

County: Harris

Contact (Last Name, First Name): N/A

Phone No.: (713) 767-3500 Ext.: Click to enter text.

E. Bilingual Notice Requirements

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

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

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

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

☒ Yes

☐ No

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

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

☒ Yes

☐ No

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

F. Plain Language Summary Template

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

Attachment: Attachment 2

G. Public Involvement Plan Form

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

Attachment: Attachment 3

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

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

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

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

Generation Park Management District East Wastewater Treatment Plant

C. Owner of treatment facility: Generation Park Management District

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

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

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

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

Organization Name: MRA Northeast, L.P.

Mailing Address: 250 Assay Street, Suite 200 City, State, Zip Code: Houston, TX 77044

Phone No.: (713) 860-3000 E-mail Address: scloonan@mccord.com

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

Attachment: Landowner is co-applicant.

E. Owner of effluent disposal site:

Prefix: N/A

Last Name, First Name: N/A

Title: N/A

Credential: N/A

Organization Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A

E-mail Address: N/A

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

Attachment: N/A

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

Prefix: N/A

Last Name, First Name: N/A

Title: N/A

Credential: N/A

Organization Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A

E-mail Address: N/A

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

Attachment: N/A

Section 10. TPDES Discharge Information (Instructions Page 31)

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

☐ Yes ☐ No

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

Approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive in Harris County, Texas 77044.

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

☐ Yes ☐ No

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

To an unnamed detention basin, thence to storm sewer, thence to a series of unnamed detention basins and channels, thence to an unnamed tributary, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto River Basin.

City nearest the outfall(s): Houston

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

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

☐ Yes ☒ No

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

- ☐ Authorization granted ☐ Authorization pending

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

Attachment: N/A

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

Section 11. TLAP Disposal Information (Instructions Page 32)

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

- ☐ Yes ☐ No

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

N/A

- B. City nearest the disposal site: N/A

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

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

N/A

- E. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: N/A

Section 12. Miscellaneous Information (Instructions Page 32)

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

- ☐ Yes ☒ No

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

- ☐ Yes ☐ No ☒ Not Applicable

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

N/A

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

☐ Yes ☒ No

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

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account number: N/A

Amount past due: N/A

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, please provide the following information:

Enforcement order number: N/A

Amount past due: N/A

Section 13. Attachments (Instructions Page 33)

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

- ☐ Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.
- ☒ Original full-size USGS Topographic Map with the following information:
- Applicant's property boundary
 - Treatment facility boundary
 - Labeled point of discharge for each discharge point (TPDES only)
 - Highlighted discharge route for each discharge point (TPDES only)
 - Onsite sewage sludge disposal site (if applicable)
 - Effluent disposal site boundaries (TLAP only)
 - New and future construction (if applicable)
 - 1 mile radius information
 - 3 miles downstream information (TPDES only)
 - All ponds.
- ☐ Attachment 1 for Individuals as co-applicants
- ☒ Other Attachments. Please specify: Attachment 1 – Core Data Forms; Attachment 2 – Plain Language Summary (English and Spanish); Attachment 3 – Public Involvement Plan Form; Attachment 4 – USGS Topographic Map; Attachment 5 – Copy of Payment Voucher

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: [Click to enter text.](#)

Applicant: Generation Park Management District

Certification:

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

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

Signatory name (typed or printed): Mr. Charles W. Neuhaus

Signatory title: Board President

Signature: _____

Date: _____

12/18/24

(Use blue ink)

Subscribed and Sworn to before me by the said _____

Charles W. Neuhaus

on this _____

18th

day of _____

December

, 2024.

My commission expires on the _____

28th

day of _____

January

, 2025.

Notary Public

Harris
County, Texas



Section 14. Signature Page (Instructions Page 34)

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

Permit Number: Click to enter text.

Applicant: MRA Northeast, L.P.

Certification:

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

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

Signatory name (typed or printed): Mr. Frederick R. McCord

Signatory title: President

Signature: _____

(Use blue ink)

Date: 2-14-25

Subscribed and Sworn to before me by the said Frederick R. McCord, Jr.

on this 14th day of February, 20 25.

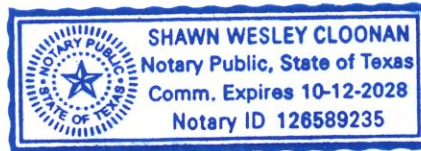
My commission expires on the 12th day of October, 20 25.

[Signature]

Notary Public

Harris

County, Texas



[SEAL]

ATTACHMENT NO. 1

CORE DATA FORMS



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 604386060		RN

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)			
<input type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
Generation Park Management District					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input checked="" type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:	
12. Number of Employees				13. Independently Owned and Operated?	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:	Schwartz, Page & Harding, L.L.P.				
	1300 Post Oak Blvd, Suite 2400				
	City	Houston	State	TX	ZIP 77056 ZIP + 4
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
				dringold@sphllp.com	
18. Telephone Number		19. Extension or Code		20. Fax Number (if applicable)	

SECTION III: Regulated Entity Information

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

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

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

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

Generation Park Management District East Wastewater Treatment Plant

23. Street Address of the Regulated Entity:

(No PO Boxes)

City

State

ZIP

ZIP + 4

24. County

Harris

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

25. Description to Physical Location:

Approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive.

26. Nearest City

State

Nearest ZIP Code

Houston

TX

77044

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

27. Latitude (N) In Decimal:

28. Longitude (W) In Decimal:

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

29

54

3.32

-95

10

13.44

29. Primary SIC Code

30. Secondary SIC Code

31. Primary NAICS Code

32. Secondary NAICS Code

(4 digits)

(4 digits)

(5 or 6 digits)

(5 or 6 digits)

4952

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

Wastewater Treatment Facility

34. Mailing Address:

Schwartz, Page & Harding, L.L.P.

1300 Post Oak Blvd, Suite 2400

City

Houston

State

TX

ZIP

77056

ZIP + 4

3078

35. E-Mail Address:

dringold@sphllp.com

36. Telephone Number

37. Extension or Code

38. Fax Number *(if applicable)*

(713) 623-4531

(713) 623-6143

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


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	AnnMarie Burns		41. Title:	Design Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
(832) 590-7153		() -	aburns@idseg.com	

SECTION V: Authorized Signature

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

Company:	Generation Park Management District		Job Title:	Board President	
Name (In Print):	Charles W. Neuhaus			Phone:	() 713-502-9515
Signature:				Date:	12/18/14



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN		RN

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)			
<input checked="" type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
MRA Northeast, L.P.					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
0800309222		32035641169		76-0559742	N/A
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input checked="" type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:	
12. Number of Employees				13. Independently Owned and Operated?	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input checked="" type="checkbox"/> Other: Current owner of land where treatment facility will be located.					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:		MRA Northeast, L.P.			
		250 Assay St., Suite 200			
City		Houston	State	TX	ZIP
				77044	ZIP + 4
					3506
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
				scloonan@mccord.com	
18. Telephone Number			19. Extension or Code		20. Fax Number (if applicable)

SECTION III: Regulated Entity Information

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

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

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

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

Generation Park Management District East Wastewater Treatment Plant

23. Street Address of the Regulated Entity:

(No PO Boxes)

City

State

ZIP

ZIP + 4

24. County

Harris

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

25. Description to Physical Location:

Approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive.

26. Nearest City

State

Nearest ZIP Code

Houston

TX

77044

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

27. Latitude (N) In Decimal:

28. Longitude (W) In Decimal:

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

29

54

3.32

-95

10

13.44

29. Primary SIC Code

30. Secondary SIC Code

31. Primary NAICS Code

32. Secondary NAICS Code

(4 digits)

(4 digits)

(5 or 6 digits)

(5 or 6 digits)

4952

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

Wastewater Treatment Facility

34. Mailing Address:

Schwartz, Page & Harding, L.L.P.

1300 Post Oak Blvd, Suite 2400

City

Houston

State

TX

ZIP

77056

ZIP + 4

3078

35. E-Mail Address:

dringold@sphllp.com

36. Telephone Number

37. Extension or Code

38. Fax Number (if applicable)

(713) 623-4531

(713) 623-6143

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

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	AnnMarie Burns			41. Title:	Design Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address		
(832) 590-7153		() -	aburns@idseg.com		

SECTION V: Authorized Signature

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

Company:	MRA Northeast, L.P.	Job Title:	President
Name (In Print):	Frederick R. McCord	Phone:	() -
Signature:			Date: 2/14/2025

ATTACHMENT NO. 2

PLAIN LANGUAGE SUMMARY
(ENGLISH AND SPANISH)

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

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.

Generation Park Management District (CN604386060) proposes to operate Generation Park Management District East Wastewater Treatment Plant (RN_____), a domestic wastewater treatment facility. The facility will be located approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive, in Houston, Harris County, Texas 77044.

This application is for a new permit to discharge at an ultimate average flow of 2,800,000 gallons per day of treated domestic wastewater via an outfall into a series of detention basins and ultimately to the San Jacinto River Basin.

Discharges from the facility are expected to contain Carbonaceous Biochemical Oxygen Demand (5-day)(CBOD₅), total suspended solids (TSS), and ammonia nitrogen (NH₃-N). Additional potential pollutants are unknown as this is a new wastewater treatment plant. Domestic wastewater will be treated by activated sludge process with single stage nitrification.

RESUMEN DE LA SOLICITUD EN LENGUAJE SENCILLO PARA LAS SOLICITUDES DE PERMISOS TPDES O TLAP

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.

El Distrito de Gestión de Generation Park (CN604386060) propone operar Planta de Tratamiento de Aguas Residuales del Este del Distrito de Gestión de Generation Park (RN_____), una instalación de tratamiento de aguas residuales domésticas. La instalación está ubicada en aproximadamente 1,400 pies al norte de la intersección de Lake Houston Parkway y Common Dock Drive, en Houston, Condado de Harris, Texas 77044. Esta solicitud es para un nuevo permiso para descargar un caudal promedio final de 2.800.000 galones por día de aguas residuales domésticas tratadas a través de un desagüe en una serie de cuencas de detención y, en última instancia, en la cuenca del río San Jacinto.

Se espera que las descargas de la instalación contengan Demanda bioquímica de oxígeno carbonoso (5-días)(CBOD₅), sólidos suspendidos totales (TSS) y nitrógeno amoniacal (NH₃-N). Se desconocen otros posibles contaminantes ya que se trata de una nueva planta de tratamiento de aguas residuales.. Aguas residuales domésticas. estará tratado por roceso de lodos activados con nitrificación en una sola etapa.

ATTACHMENT NO. 3

PUBLIC INVOLVEMENT PLAN FORM



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

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

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

Section 1. Preliminary Screening

New Permit or Registration Application

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

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

Section 2. Secondary Screening

Requires public notice,

Considered to have significant public interest, and

Located within any of the following geographical locations:

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

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

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

Section 3. Application Information

Type of Application (check all that apply):

Air Initial Federal Amendment Standard Permit Title V
Waste Municipal Solid Waste Industrial and Hazardous Waste Scrap Tire
Radioactive Material Licensing Underground Injection Control

Water Quality

Texas Pollutant Discharge Elimination System (TPDES)
Texas Land Application Permit (TLAP)
State Only Concentrated Animal Feeding Operation (CAFO)
Water Treatment Plant Residuals Disposal Permit
Class B Biosolids Land Application Permit
Domestic Septage Land Application Registration

Water Rights New Permit

New Appropriation of Water
New or existing reservoir

Amendment to an Existing Water Right

Add a New Appropriation of Water
Add a New or Existing Reservoir
Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

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

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

(City)

(County)

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.

City

County

Census Tract

- (a) Percent of people over 25 years of age who at least graduated from high school
- (b) Per capita income for population near the specified location
- (c) Percent of minority population and percent of population by race within the specified location
- (d) Percent of Linguistically Isolated Households by language within the specified location
- (e) Languages commonly spoken in area by percentage
- (f) Community and/or Stakeholder Groups
- (g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

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

Yes No

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

Yes No

If Yes, please describe.

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

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

Yes No

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

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

Publish in alternative language newspaper

Posted on Commissioner's Integrated Database Website

Mailed by TCEQ's Office of the Chief Clerk

Other (specify)

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

Yes No

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

Yes No

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

TCEQ Regional Office

TCEQ Central Office

Public Place (specify)

Section 7. Voluntary Submittal

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

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

Yes No

What types of notice will be provided?

Publish in alternative language newspaper

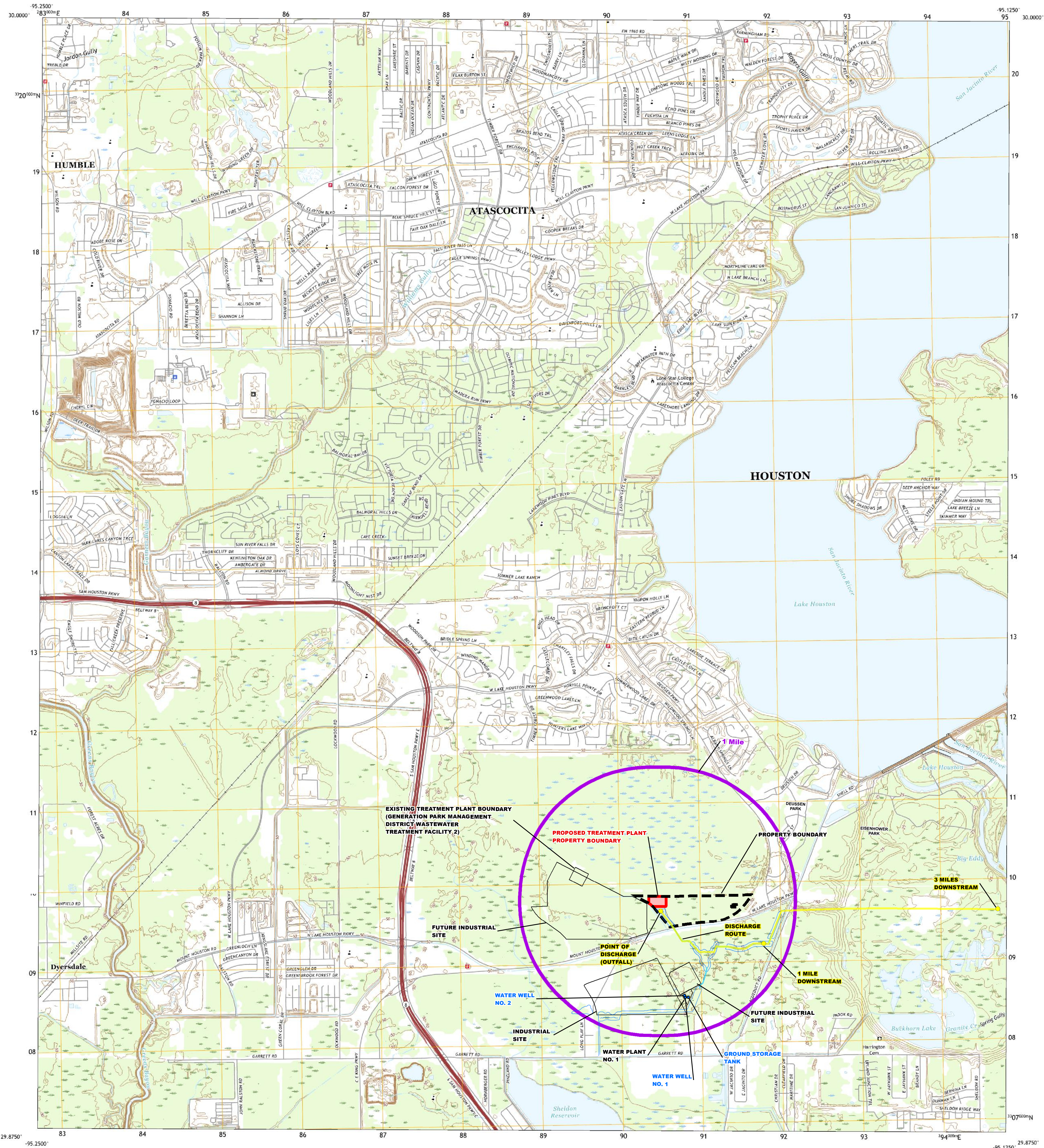
Posted on Commissioner's Integrated Database Website

Mailed by TCEQ's Office of the Chief Clerk

Other (specify)

ATTACHMENT NO. 4

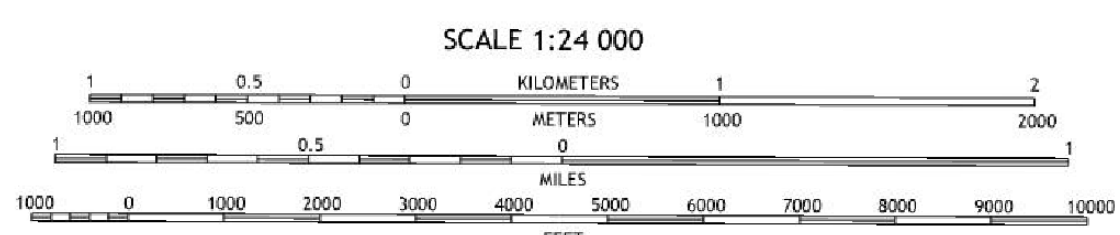
USGS TOPOGRAPHIC MAP



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 15R
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.

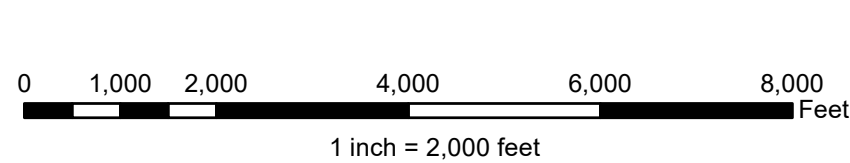
Imagery: NAI, September 2016 - November 2016
Roads: U.S. Census Bureau, 2015 - 2019
Names: National Hydrographic Database, 2002 - 2018

UTM GRID AND 2019 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET



ROAD CLASSIFICATION

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



ATTACHMENT NO. 5

COPY OF PAYMENT VOUCHER

Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number: 582EA000653750
Date: 02/21/2025 10:21 AM
Payment Method: CC - Authorization 0000021420
ePay Actor: ANNMARIE BURNS
Actor Email: dgillamac@idseg.com
IP: 216.201.136.178
TCEQ Amount: \$2,050.00
Texas.gov Price: \$2,096.38*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name: ANNMARIE BURNS
Company: IDS ENGINEERING GROUP
Address: 13430 NORTHWEST FREEWAY, HOUSTON, TX 77040
Phone: 713-462-3178

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
751697	WW PERMIT - FACILITY WITH FLOW >= 1.0 MGD - NEW AND MAJOR AMENDMENTS		\$2,000.00
751698	30 TAC 305.53B WQ NOTIFICATION FEE		\$50.00
TCEQ Amount:			\$2,050.00

[ePay Again](#)[Exit ePay](#)

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

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: Harris County Appraisal District
- E. As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?
- ☐ Yes ☒ No

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

Click to enter text.

Section 2. Original Photographs (Instructions Page 38)

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

- ☒ At least one original photograph of the new or expanded treatment unit location
- ☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☐ At least one photograph of the existing/proposed effluent disposal site
- ☒ A plot plan or map showing the location and direction of each photograph

Section 3. Buffer Zone Map (Instructions Page 38)

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

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

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

- ☒ Ownership
- ☒ Restrictive easement
- ☐ Nuisance odor control
- ☐ Variance

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

- ☒ Yes ☐ No

DOMESTIC WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

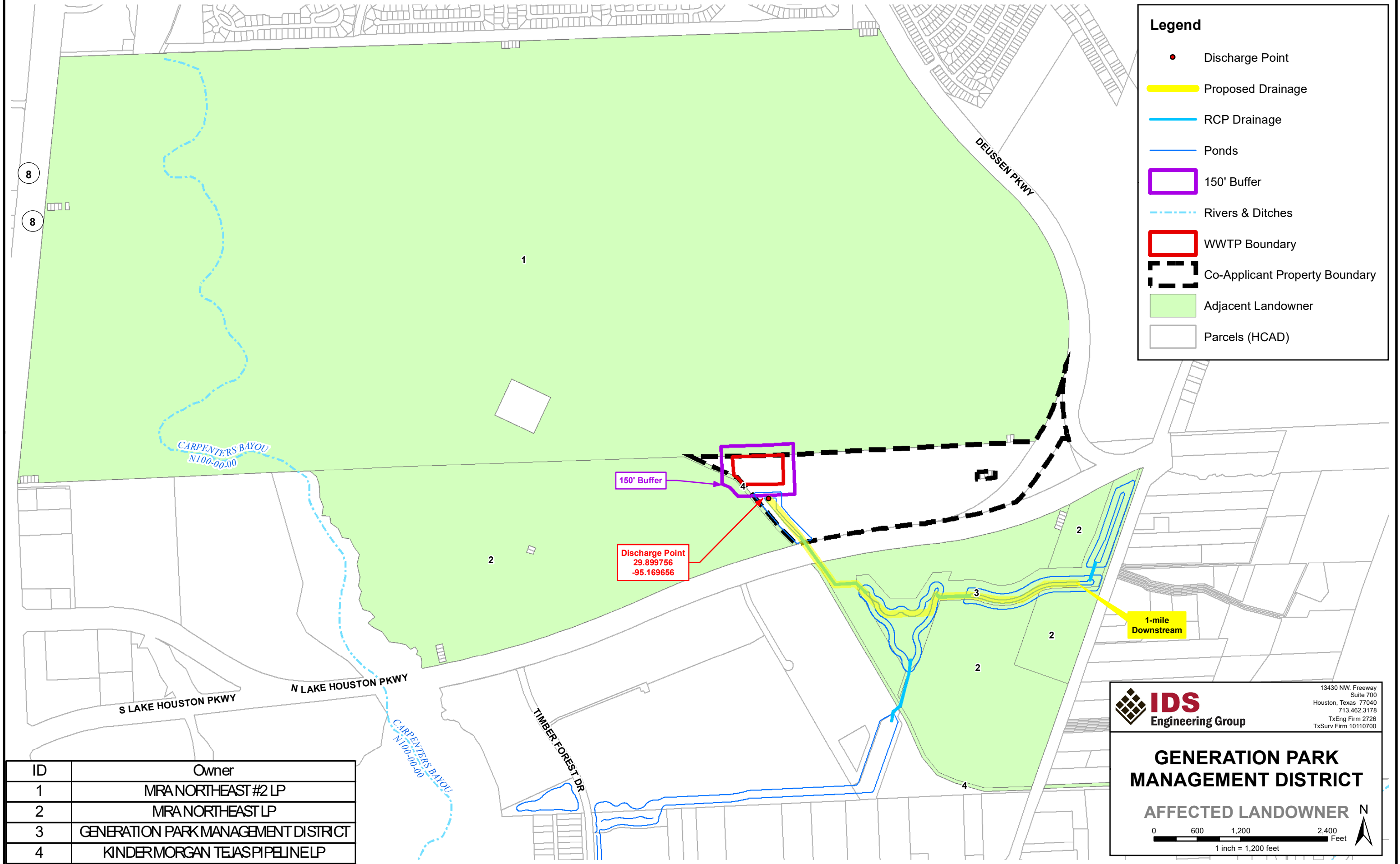
This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

Attachment: See Attachment No. 9

ATTACHMENT NO. 6

AFFECTED LANDOWNERS MAP & LIST OF ADDRESSES

IDS Engineering Group \\hougisd1\Projects\13001339-012-04_GPMID2024_TPDES_GPEWWTP\AffectedLandowner_11X17.mxd Plotted: 2/25/2025 at 9:59:52 AM by vrevino



Affected Landowner Cross-Reference List

ID	Owner	Mailing Address	City	State	Zip Code
1	MRA NORTHEAST #2 LP	250 ASSAY ST, STE 200	HOUSTON	TX	77044-3506
2	MRA NORTHEAST LP	250 ASSAY ST, STE 200	HOUSTON	TX	77044-3506
3	GENERATION PARK MANAGEMENT DISTRICT	1300 POST OAK BLVD, STE 2400	HOUSTON	TX	77056-3044
4	KINDER MORGAN TEJAS PIPELINE LP	500 DALLAS ST, STE 1000	HOUSTON	TX	77002-4718

ATTACHMENT NO. 7

ORIGINAL PHOTOGRAPHS WITH MAP

Generation Park Management District East Wastewater Treatment Plant

Domestic Administrative Report 1.1 – Section 2 Original Photographs

- Photograph of new treatment unit location:
Area is currently wooded and is not yet cleared.

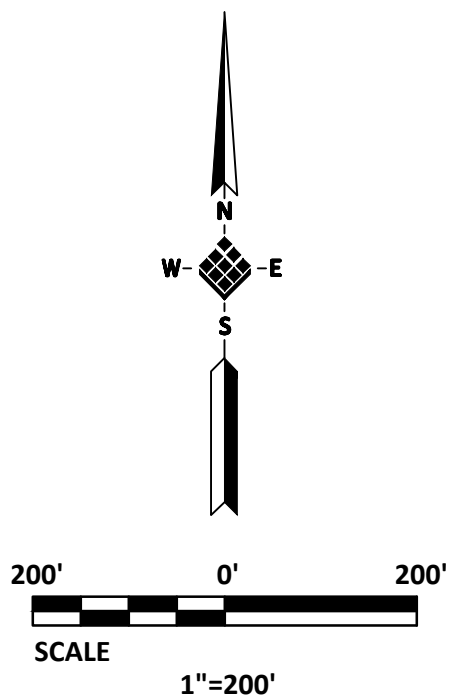


- Photographs of proposed discharge point:

Area is currently wooded and is not yet cleared. Effluent will discharge into detention pond, which has not yet been excavated.



\\idseg.com\fs\Projects\1300\133901204 TO 143 Generation Park East\CAD\Exhibits\2025-02-10 OUTFALL AERIAL\GP EAST WWTP OUTFALL DETN POND G.dwg [11x17] Plotted Feb 10, 2025 at 9:07am by tbradshaw (Last Saved by: tbradshaw)



**GP EAST WWTP
OUTFALL AERIAL
DATE: 2/10/25
DATE: 1" = 200'**

ATTACHMENT NO. 8

BUFFER ZONE MAP

1804.19 ACRES
MRA NORTHEAST #2, L.P.
FILE NO. 20110043079, O.P.R.R.P.



0' 200'

HL&P ESMT.
FILE No. D057381,
H.C.D.R.

150' BUFFER

150'

THE EASEMENT RECORDED UNDER
D057381 PROHIBITS STRUCTURES

96'

98'

150'

PHASE 2 SBRs

ULTIMATE SBRs

PHASE 1 FACILITIES

ULTIMATE DIGESTERS

PROPOSED WWTP

DISINFECTION

96'

96'

110'

87.953 ACRES - TRACT III
MRA NORTHEAST, L.P.
FILE NO. X426083, O.P.R.R.P.


WWTP BOUNDARY


DEED RECORDED UNDER VOL.
5353, PG. 149 LIMITS THE FEE
STRIP TO PIPELINE PURPOSES

285.301 ACRES - TRACT 1
MRA NORTHEAST, L.P.
FILE NO. X426083, O.P.R.R.P.

50' HUMBLE OIL &
REFINING CO. (FEE STRIP)
VOL. 5353, PG. 149, H.C.D.R.

FUTURE DETENTION
POND G

 BUFFER BY RESTRICTIVE
EASEMENT

 BUFFER BY OWNERSHIP
BY CO-APPLICANT

 **IDS**
Engineering Group

13430 NW. Freeway
Suite 700
Houston, Tx. 77040
713.462.3178
TXENG Firm 2726
TXSURV Firm 30310790

**GP EAST WWTP
BUFFER ZONE EXHIBIT**

DATE: 2/24/2025

SCALE: 1" = 200'

ATTACHMENT NO. 9

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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: Generation Park Management District

Permit No. WQ00 _____

EPA ID No. TX _____

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

Approximately 1,400 ft north of the intersection of Lake Houston Parkway and Common Dock Drive in Harris County, TX 77044.

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: Vernon H. Webb, II

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

Title: District Engineer

Mailing Address: 13430 Northwest Freeway, Suite 700

City, State, Zip Code: Houston, TX 77040

Phone No.: (713) 462-3178 Ext.:

Fax No.:

E-mail Address: vwebb@idseg.com

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

N/A

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

Effluent will discharge to an unnamed detention basin, thence to storm sewer, thence to a series of unnamed detention basins and channels, thence to an unnamed tributary, thence to San Jacinto River Tidal in Segment No. 1001 of the San Jacinto 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):

Construction of the wastewater treatment plant will include grading of the site, installation of utilities, site paving, equipment, and treatment basins. Excavation depth will not exceed approximately 20 feet. Construction, including clearing, will impact approximately 5.5 acres.

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

The site is currently wooded. There is one cleared area which was previously used for oil and gas exploration.

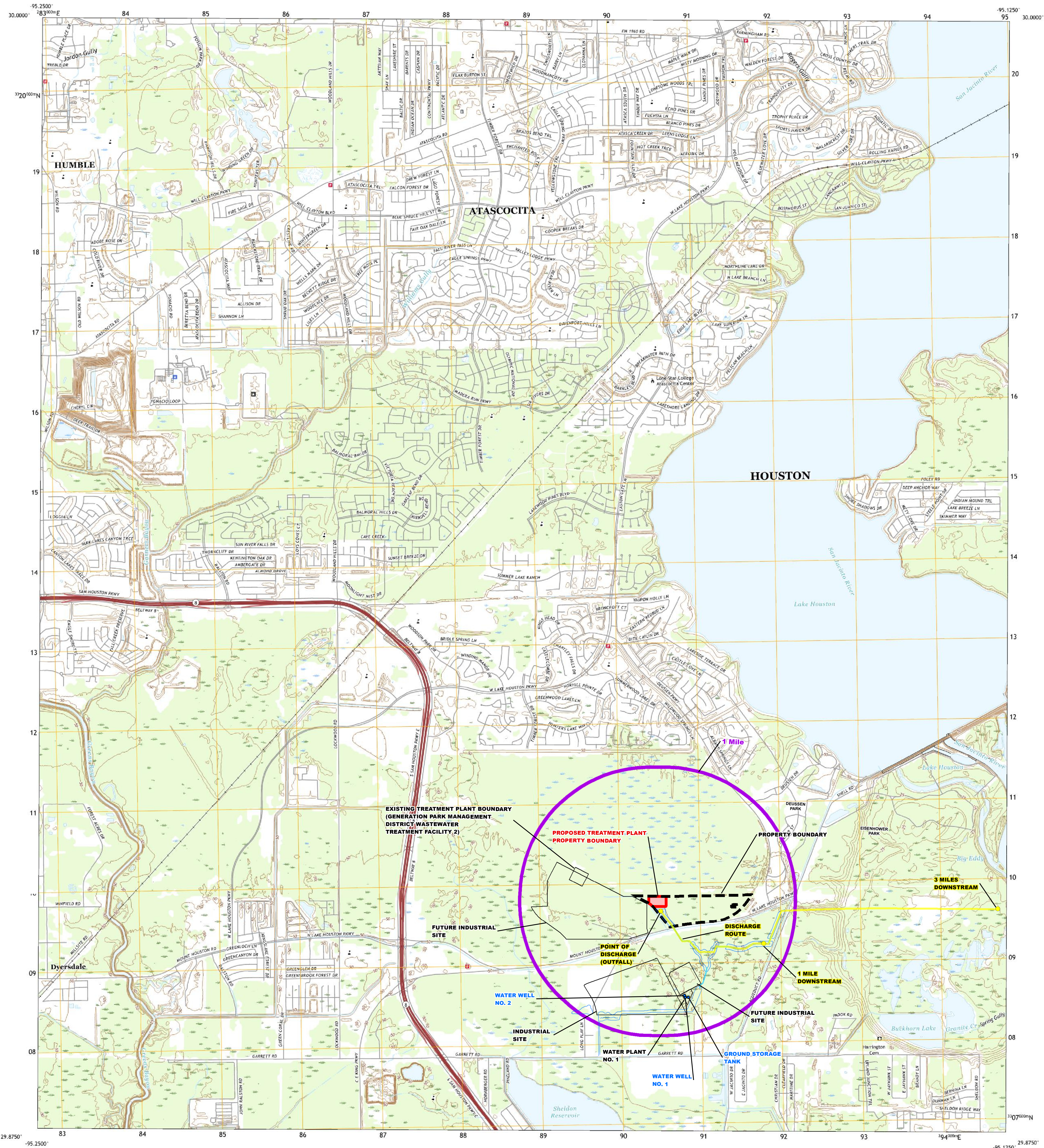
THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

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

There are no existing buildings or structures.

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

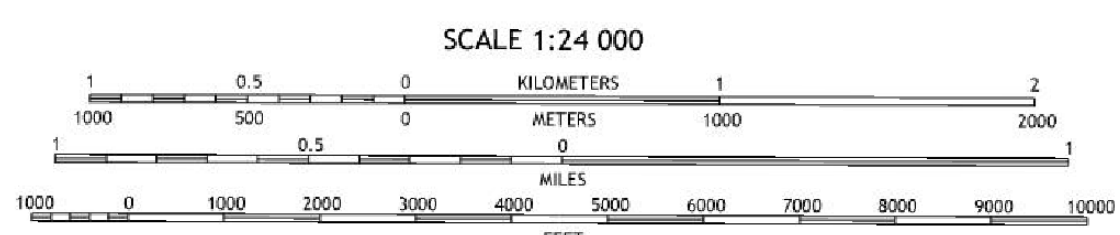
The site was previously owned by the King Cattle & Timber Company, and was also used for oil and gas activities.



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 15R
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.

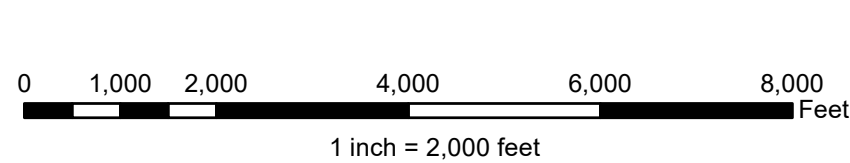
Imagery: N/AIP, September 2016 - November 2016
Roads: U.S. Census Bureau, 2015 - 2019
Names: National Hydrographic Database, 1979 - 2022
Hydrography: National Hydrographic Database, 2002 - 2018

UTM GRID AND 2019 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET



ROAD CLASSIFICATION

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



DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

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

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

Water Quality Permit Payment Submittal Form (Page 19) ☐ Yes
(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)
TCEQ ePay Voucher Receipt is included, see Attachment No. 5

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

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

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

Things to Know:

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

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

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

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

Plain Language Summary ☒ Yes



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

Section 1. Permitted or Proposed Flows (Instructions Page 42)

A. Existing/Interim I Phase

Design Flow (MGD): 0.12

2-Hr Peak Flow (MGD): 0.48

Estimated construction start date: February 2026

Estimated waste disposal start date: September 2026

B. Interim II Phase

Design Flow (MGD): 1.05

2-Hr Peak Flow (MGD): 4.2

Estimated construction start date: February 2027

Estimated waste disposal start date: August 2029

C. Final Phase

Design Flow (MGD): 2.8

2-Hr Peak Flow (MGD): 11.2

Estimated construction start date: January 2030

Estimated waste disposal start date: June 2032

D. Current Operating Phase

Provide the startup date of the facility: N/A

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.**

See Attachment No. 10

B. Treatment Units

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

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
See Attachment No. 11		

C. Process Flow Diagram

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

Attachment: See Attachment No. 12

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

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

- Latitude: 29° 53' 59.12" N
- Longitude: -95° 10' 10.76" W

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: See Attachment No. 13

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

This wastewater treatment plant will serve the east side of Generation Park Management District. The area is generally bounded by Beltway 8 and Sheldon Reservoir to the West, Summerwood to the North, Deussen Parkway and Aqueduct Road to the east, and Garrett Road to the South.

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
Generation Park East Collection System	Generation Park Management District	Publicly Owned	1675
		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.**

Click to enter text.

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 [Click to enter text.](#) or TXRNE [Click to enter text.](#)

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

☐ Yes ☐ No

3. Conditional exclusion

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

☐ Yes ☐ No

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

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.
[Click to enter text.](#)

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

1. Acceptance of sludge from other WWTPs

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

☐ Yes ☐ No

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

In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the sludge, and the design BOD₅ 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 BOD₅ concentration of the septic waste, and the design BOD₅ 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). **Water treatment facilities** discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

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

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

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD ₅ , mg/l					
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					
<i>E.coli</i> (CFU/100ml) freshwater					
Enterococci (CFU/100ml) saltwater					
Total Dissolved Solids, mg/l					
Electrical Conductivity, μ mohs/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: Inframark, LLC

Facility Operator's License Classification and Level: (Wastewater Operations Company)

Facility Operator's License Number: OC0000232

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 \geq 1 MGD
- ☐ Serves \geq 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: [Click to enter text.](#)

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	Bulk	60 metric tons (estimated per year)	Class B: PSRP Aerobic Digestion	Option 4: SOUR ≤ 1.5 mg O ₂ /hr/g total solids at 20C ($< 2\%$ solids)
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

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

D. Disposal site

Disposal site name: Mt Houston Road WWTP Sludge Processing Site

TCEQ permit or registration number: 0011154001

County where disposal site is located: Harris

E. Transportation method

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

Name of the hauler: Magna Flow Environmental

Hauler registration number: 21484

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	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Marketing and Distribution of Biosolids	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sludge Surface Disposal or Sludge Monofill	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Temporary storage in sludge lagoons	<input type="checkbox"/> Yes	<input type="checkbox"/> No

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

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

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

A. Location information

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

- Original General Highway (County) Map:
Attachment: [Click to enter text.](#)
- USDA Natural Resources Conservation Service Soil Map:
Attachment: [Click to enter text.](#)
- Federal Emergency Management Map:
Attachment: [Click to enter text.](#)
- Site map:
Attachment: [Click to enter text.](#)

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

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands

- ☐ Located less than 60 meters from a fault
- ☐ None of the above

Attachment: [Click to enter text.](#)

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

[Click to enter text.](#)

B. Temporary storage information

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

Nitrate Nitrogen, mg/kg: [Click to enter text.](#)

Total Kjeldahl Nitrogen, mg/kg: [Click to enter text.](#)

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

Phosphorus, mg/kg: [Click to enter text.](#)

Potassium, mg/kg: [Click to enter text.](#)

pH, standard units: [Click to enter text.](#)

Ammonia Nitrogen mg/kg: [Click to enter text.](#)

Arsenic: [Click to enter text.](#)

Cadmium: [Click to enter text.](#)

Chromium: [Click to enter text.](#)

Copper: [Click to enter text.](#)

Lead: [Click to enter text.](#)

Mercury: [Click to enter text.](#)

Molybdenum: [Click to enter text.](#)

Nickel: [Click to enter text.](#)

Selenium: [Click to enter text.](#)

Zinc: [Click to enter text.](#)

Total PCBs: [Click to enter text.](#)

Provide the following information:

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

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

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

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec?

☐ Yes ☐ No

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

[Click to enter text.](#)

D. Site development plan

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

[Click to enter text.](#)

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)
Attachment: [Click to enter text.](#)
- Copy of the closure plan
Attachment: [Click to enter text.](#)
- Copy of deed recordation for the site
Attachment: [Click to enter text.](#)
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons
Attachment: [Click to enter text.](#)
- Description of the method of controlling infiltration of groundwater and surface water from entering the site
Attachment: [Click to enter text.](#)
- Procedures to prevent the occurrence of nuisance conditions
Attachment: [Click to enter text.](#)

E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: [Click to enter text.](#)

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 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:

Click to enter text.

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

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

☐ Yes ☒ No

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

Click to enter text.

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

A. RCRA hazardous wastes

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

☐ Yes ☒ No

B. Remediation activity wastewater

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

☐ Yes ☒ No

C. Details about wastes received

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

Attachment: [Click to enter text.](#)

Section 14. Laboratory Accreditation (Instructions Page 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: N/A

Title: N/A

Signature: _____

Date: _____

ATTACHMENT NO. 10

TREATMENT PROCESS DESCRIPTION

Generation Park Management District

East Wastewater Treatment Plant

Domestic Technical Report 1.0 – Section 2. Treatment Process Description

Current Operating Phase

All phases are proposed; plant is not currently operating.

Proposed Interim Phase I (0.12 MGD)

The proposed Interim Phase I plant is a steel plant, designed to treat 0.12 MGD average daily flow with a 0.48 MGD peak flow (4Q). The treatment process is activated sludge process with complete mix single stage nitrification.

Wastewater will be pumped through an influent force main to the headworks, which will have a manual bar screen. The effluent from the screens will proceed to two (2) aeration basins for biological treatment. From the aeration basins, the mixed liquor will flow to a single clarifier for settling.

The settled sludge from the clarifier will either be returned to the aeration basins as Recycled Activated Sludge (RAS) or wasted into two (2) digesters as Waste Activated Sludge (WAS). Each digester has aerators and airlift decanters to further thicken the sludge and return the supernatant back to the aeration basins, while the sludge is periodically removed and wet hauled to another facility for further dewatering and disposal.

The settled final clarifier effluent will flow to a chlorine contact basin for disinfection. Finally, the disinfected effluent will be discharged into a man-made detention pond and ultimately into the San Jacinto River.

Proposed Interim Phase II (1.05 MGD)

The proposed Interim Stage II plant will include four (4) of the nine (9) ultimate sequencing batch reactors (SBRs) and repurpose the basins from the steel plant as digesters. It will be designed to treat 1.05 MGD average daily flow and 4.2 MGD peak flow, with one SBR out of service. Each SBR treats 350,000 gallons per day.

The wastewater influent will flow into a headworks structure and then to the SBRs for biological treatment and settling using an activated sludge process with single stage nitrification. Fine bubble diffusers and/or jet aerators will be used for aeration and decanters will be used for removing the clarified supernatant effluent. Positive displacement blowers will supply air to the SBR basins.

The proposed Interim Phase II will also include two (2) chlorine contact basins, for final disinfection of the effluent. The disinfected effluent will then be de-chlorinated and discharged into a man-made detention pond and ultimately into the San Jacinto River.

Excess sludge from the SBRs will continue to digesters, which will contain a decant mechanism for thickening the sludge. The steel aeration basins and digesters from the Proposed Stage I package plant will be converted as necessary and repurposed as digesters in this phase. The decanted digester supernatant will be returned to the SBR treatment basins, and thickened sludge will be periodically removed and wet hauled to another facility for further dewatering and disposal.

Proposed Ultimate Phase (2.8 MGD)

In the proposed ultimate phase, five (5) additional concrete sequencing batch reactors (SBRs) will be added to the four (4) SBRs proposed in the 1.05 MGD Interim II phase, for a total of nine (9) SBRs. The ultimate plant will be designed to treat 2.8 MGD average daily flow and 11.2 MGD peak flow, with one SBR out of service. Each SBR treats 350,000 gallons per day.

The wastewater influent will flow into a headworks structure and then to the SBRs for biological treatment and settling using an activated sludge process with single stage nitrification. Fine bubble diffusers and/or jet aerators will be used for aeration and decanters will be used for removing the clarified supernatant effluent. Positive displacement blowers will supply air to the SBR basins.

The proposed ultimate phase will include four (4) chlorine contact basins, for final disinfection of the effluent. The disinfected effluent will then be de-chlorinated and discharged into a man-made detention pond and ultimately into the San Jacinto River.

Excess sludge from the SBRs will continue to digesters, which will contain a decant mechanism for thickening the sludge. The proposed ultimate phase will include four (4) digesters. The decanted digester supernatant will be returned to the SBR treatment basins, and thickened sludge will be periodically removed and wet hauled to another facility for further dewatering and disposal.

ATTACHMENT NO. 11

TREATMENT UNITS

Generation Park Management District

East Wastewater Treatment Plant

Domestic Technical Report 1.0 – Table 1.0(1) Treatment Units

<u>Treatment Unit Type</u>	<u>Number of Units</u>	<u>Dimensions (L X W X D)</u>
Interim I Phase – 0.12 MGD		
Aeration Basins	2	40 ft L X 12 ft W X 10.45 ft SWD
Clarifier	1	35 ft Diameter X 10 ft SWD
Chlorine Contact Basin	1	20 ft L X 12 ft W X 8.58 ft SWD
Aerobic Digesters	2	20 ft L X 12 ft W X 10.5 ft SWD
Interim II Phase – 1.05 MGD		
SBR Basins	4	75 ft L X 25 ft W X 24 SWD
Chlorine Basins	2	58 ft L X 8 ft W X 11.5 SWD
Aerobic Digesters	2	60 ft L X 12 ft W X 10.5 SWD
Ultimate Phase – 2.8 MGD		
SBR Basins	9	75 ft L X 25 ft W X 24 SWD
Chlorine Basins	4	58 ft L X 8 ft W X 11.5 SWD
Aerobic Digesters	4	25 ft L X 40 ft W X 12.5 SWD

SWD – Side Wall Depth

L – Length

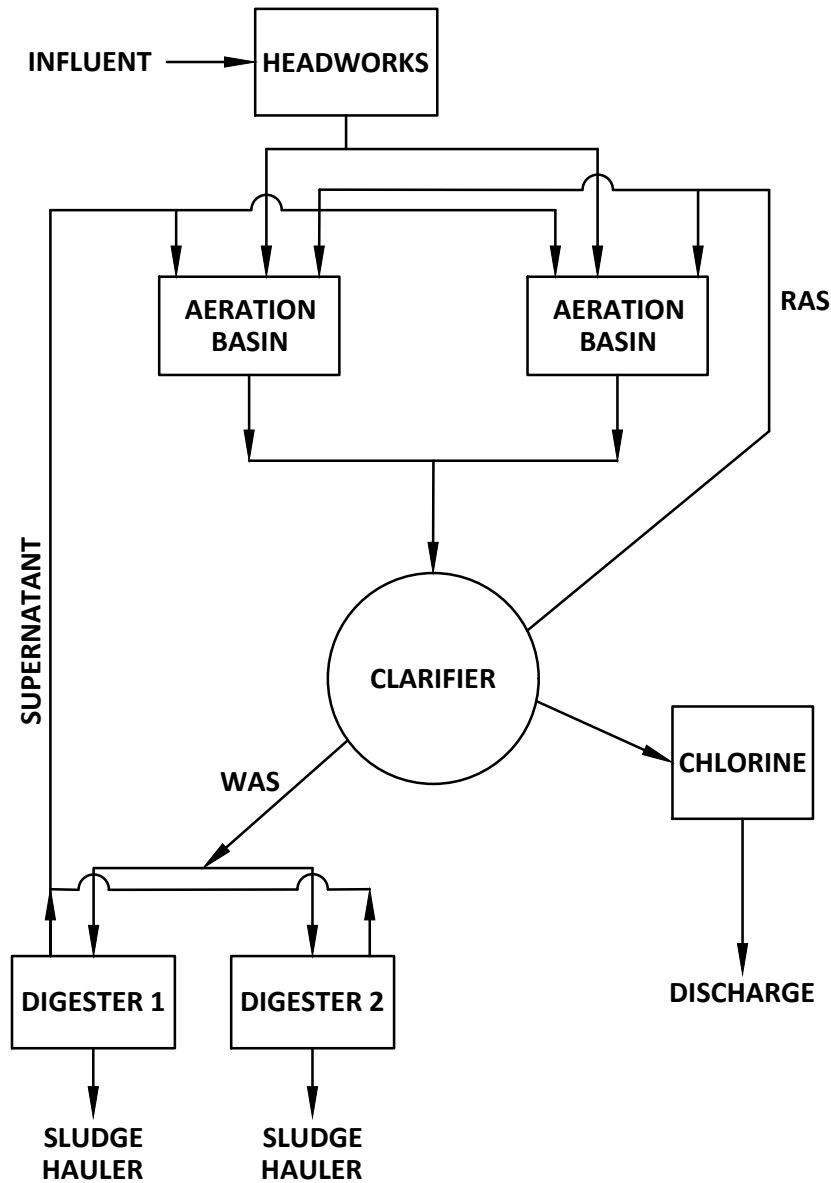
D – Depth

W – Width

ATTACHMENT NO. 12

PROCESS FLOW DIAGRAMS

**0.12 MGD
PROPOSED INTERIM I PHASE
GENERATION PARK
MANAGEMENT DISTRICT**



GENERATION PARK
A McCord Development Property



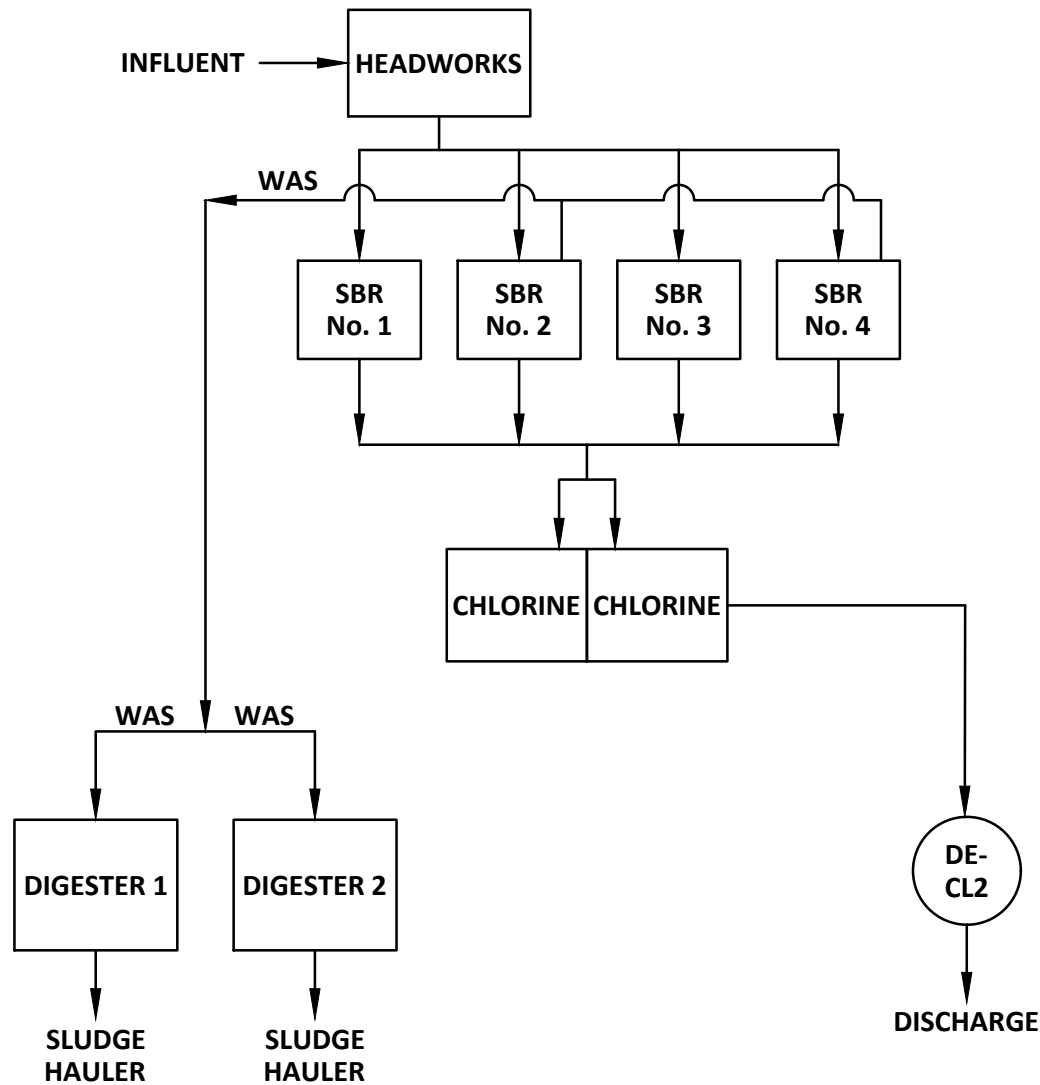
13430 NW. Freeway
Suite 700
Houston, Tx. 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

PROCESS FLOW DIAGRAM 1

DATE: 1/6/2025

SCALE: N.T.S.

**1.05 MGD
PROPOSED INTERIM II PHASE
GENERATION PARK
MANAGEMENT DISTRICT**



GENERATION PARK
A McCord Development Property



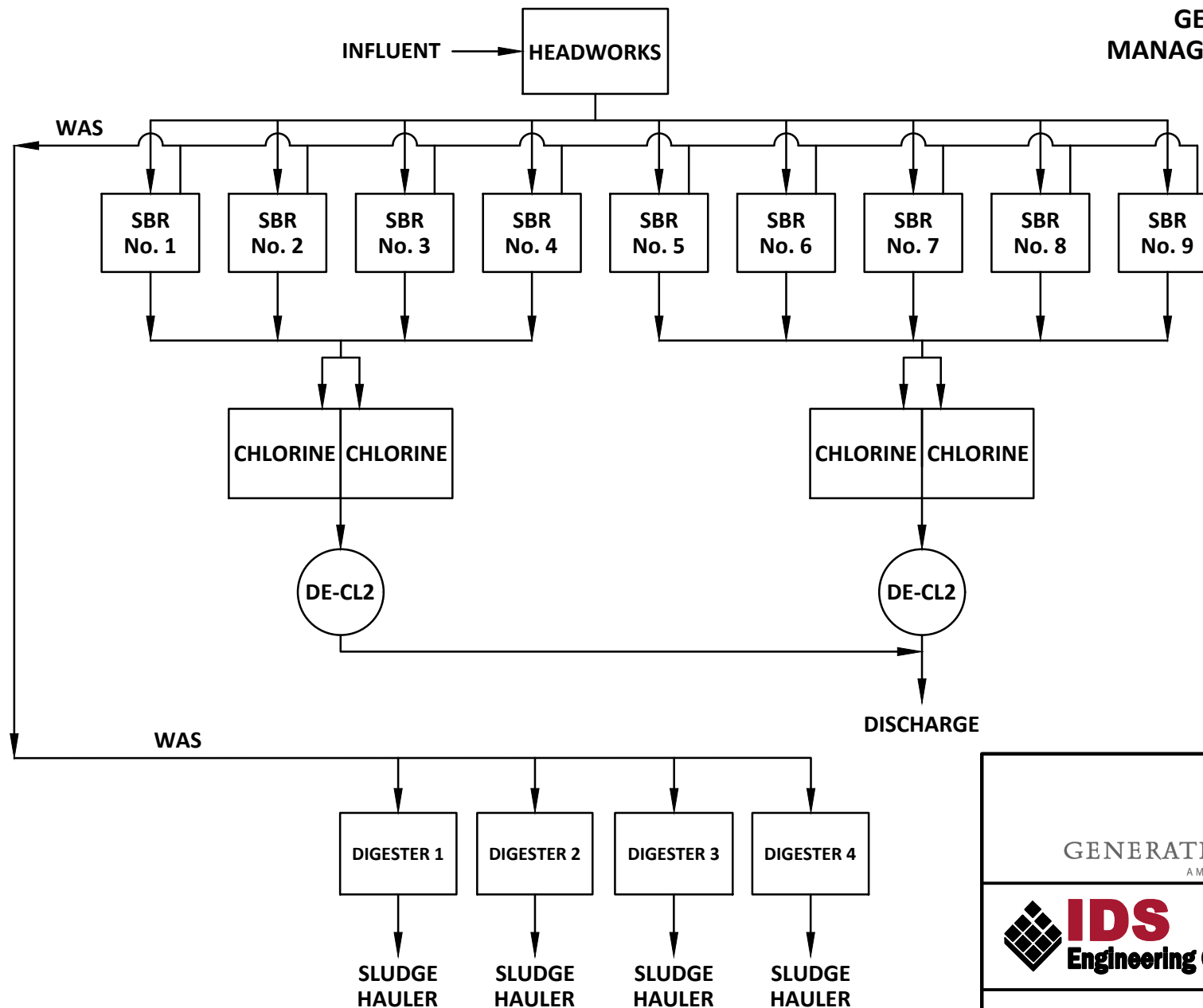
13430 NW. Freeway
Suite 700
Houston, Tx. 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700


PROCESS FLOW DIAGRAM 2

DATE: 1/6/2025


SCALE: N.T.S.

**2.8 MGD
FINAL PHASE
GENERATION PARK
MANAGEMENT DISTRICT**





GENERATION PARK
A McCord Development Property



13430 NW. Freeway
Suite 700
Houston, Tx. 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

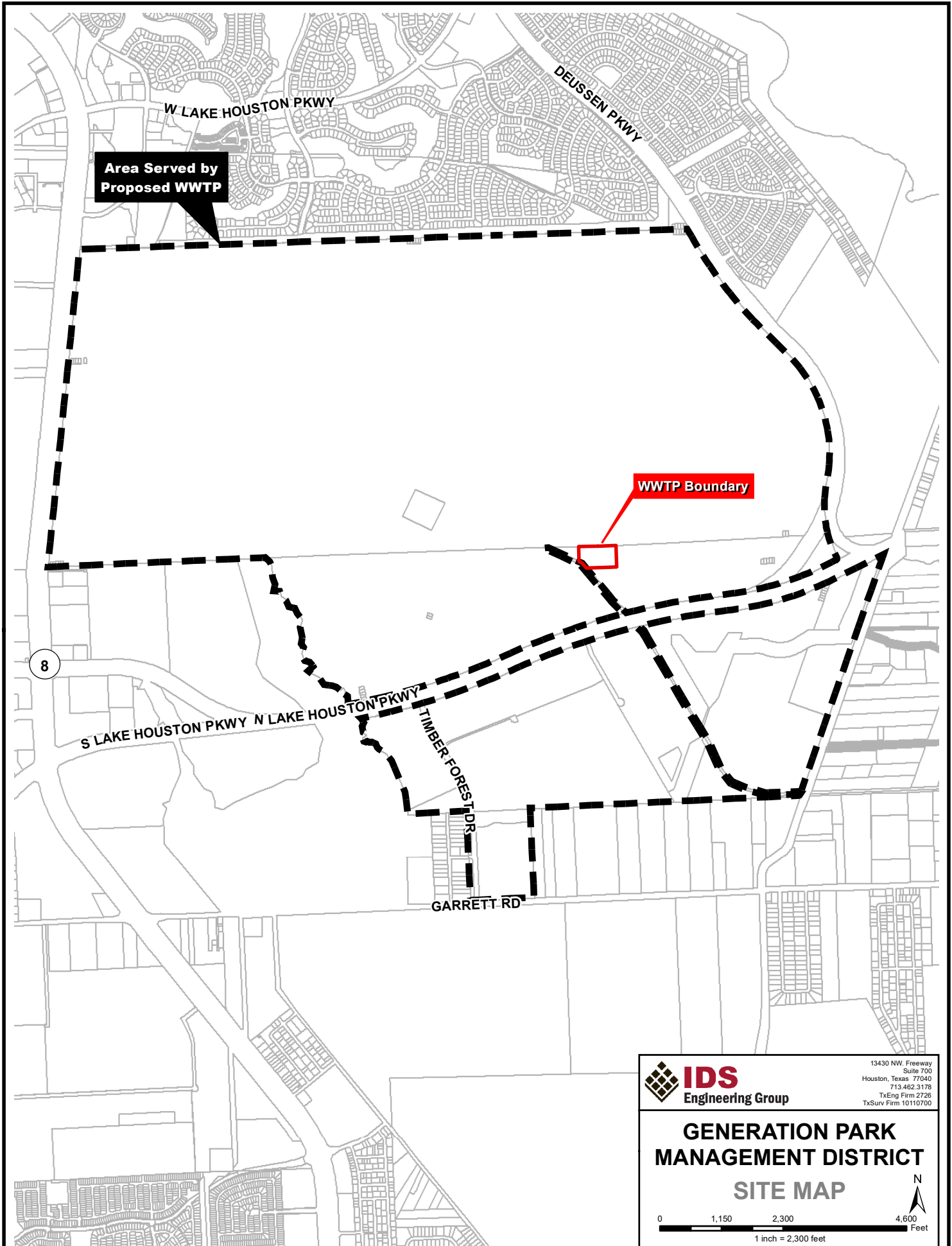
PROCESS FLOW DIAGRAM 3


DATE: 2/11/2025

SCALE: N.T.S.

ATTACHMENT NO. 13

SITE MAP



**IDS**
Engineering Group

13430 NW Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

**GENERATION PARK
MANAGEMENT DISTRICT
SITE MAP**

0 1,150 2,300 4,600
Feet
1 inch = 2,300 feet

N
↑

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.

See Attachment No. 14

B. Regionalization of facilities

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

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

1. *Municipally incorporated areas*

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

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

☐ Yes ☒ No ☐ Not Applicable

If yes, within the city limits of: [Click to enter text.](#)

If yes, attach correspondence from the city.

Attachment: [Click to enter text.](#)

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

Attachment: [Click to enter text.](#)

2. *Utility CCN areas*

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

☐ Yes ☒ No

¹ <https://www.tceq.texas.gov/permitting/wastewater/tceq-regionalization-for-wastewater>

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

Attachment: [Click to enter text.](#)

3. *Nearby WWTPs or collection systems*

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

☒ Yes ☐ No

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

Attachment: [See Attachment No. 15](#)

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: [See Attachment No. 15](#)

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): [Click to enter text.](#)

Average Influent Organic Strength or BOD₅ Concentration in mg/l: [Click to enter text.](#)

Average Influent Loading (lbs/day = total average flow X average BOD₅ conc. X 8.34): [Click to enter text.](#)

Provide the source of the average organic strength or BOD₅ concentration.

[Click to enter text.](#)

B. Proposed organic loading

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

Table 1.1(1) – Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality		
Subdivision		
Trailer park – transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park, overnight use		
Recreational park, day use		
Office building or factory	1.2 MGD	300 mg/L
Motel		
Restaurant		
Hospital		
Nursing home		
Other	1.6 MGD	300-350 mg/L
TOTAL FLOW from all sources	2.8 MGD	
AVERAGE BOD ₅ from all sources		approx. 315 mg/L

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: 10 mg/L

Total Suspended Solids, mg/l: 15 mg/L

Ammonia Nitrogen, mg/l: 3 mg/L

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4.0 mg/L

Other: Click to enter text.

B. Interim II Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15 mg/L

Ammonia Nitrogen, mg/l: 3 mg/L

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4.0 mg/L

Other: Click to enter text.

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15 mg/L

Ammonia Nitrogen, mg/l: 3 mg/L

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4.0 mg/L

Other: Click to enter text.

D. Disinfection Method

Identify the proposed method of disinfection.

☒ Chlorine: 1.0 to 4.0 mg/l after 20 minutes detention time at peak flow

Dechlorination process: Click to enter text.

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

☒ Other: Sodium Bisulfite

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: See Attachment No. 16

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.

Click to enter text.

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

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

☐ Yes ☒ No

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

☐ Yes ☐ No

If **yes**, provide the permit number: [Click to enter text.](#)

If **no**, provide the approximate date you anticipate submitting your application to the Corps: [Click to enter text.](#)

B. Wind rose

Attach a wind rose: [See Attachment No. 18](#)

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)**: [Click to enter text.](#)

B. Sludge processing authorization

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

- ☐ Sludge Composting
- ☐ Marketing and Distribution of sludge
- ☐ Sludge Surface Disposal or Sludge Monofill

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

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

Attach a solids management plan to the application.

Attachment: [See Attachment No. 19](#)

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.

ATTACHMENT NO. 14

JUSTIFICATION OF PERMIT NEED

Generation Park Management District

East Wastewater Treatment Plant

Domestic Technical Report 1.1 – Section 1.A. Justification of permit need

Generation Park Management District currently has two permitted wastewater treatment facilities with permit numbers WQ0014625001 and WQ0015015001. The Generation Park Management District Wastewater Treatment Facility 2 (GPMD WWTF2) (WQ0015015001) has not been placed into operation. It is proposed that the new facility proposed in this permit application will take the place of GPMD WWTF2 and all flow that would have been treated at GPMD WWTF2 will be treated at this new site.

The ultimate service area for this facility will consist of approximately 2,900 acres of mixed-use development and currently contains a 1.4 million square foot warehouse facility. This facility is currently not occupied but will require 55,000 GPD of wastewater capacity after its estimated occupancy date of Summer 2027. The developer is in the process of selling two additional industrial sites, one of which requires 7,000 GPD of wastewater capacity, expected in late 2026. The proposed Interim Phase I WWTP (0.12 MGD) would be required to treat these flows.

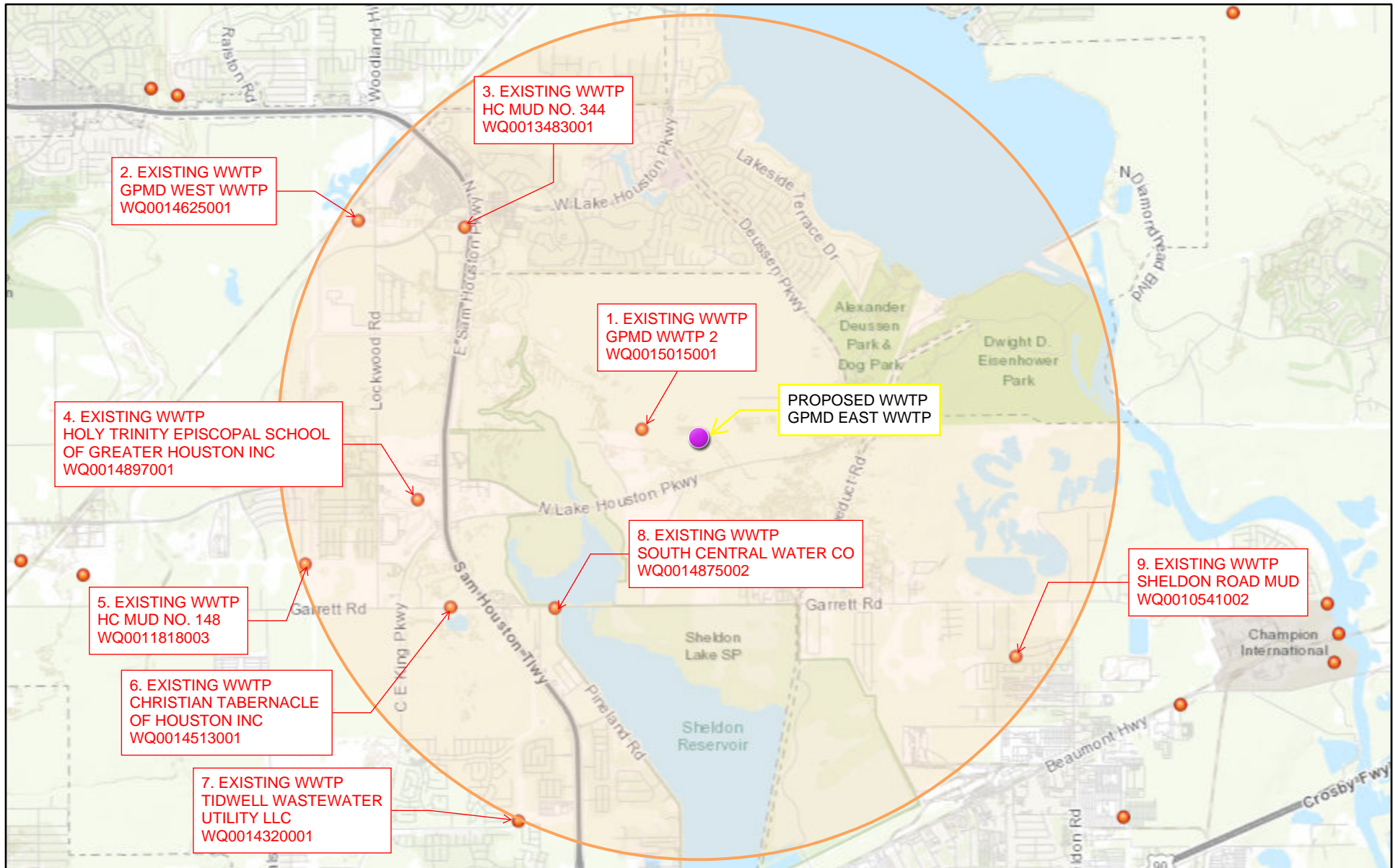
The other industrial site is expected to require 800,000 GPD of wastewater capacity by Q2 of 2029. The proposed Interim Phase II WWTP (1.05 MGD) will treat these flows in addition to the flows described in Phase I.

The second industrial site will require an additional 350,000 GPD by Summer 2032 pushing total flows to 1.2 MGD. Additional land within the District is also being offered for sale which we estimate will increase the required WWTP capacity to 2.8 MGD.

ATTACHMENT NO. 15

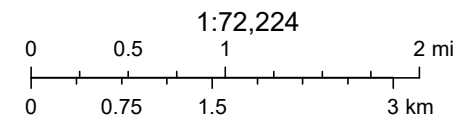
NEARBY WWTPS MAP & PROOF OF MAILING REQUEST FOR SERVICE

Nearby Wastewater Treatment Facilities (3 miles)



2/11/2025, 9:22:39 AM

● Wastewater Outfalls



TCEQ, City of Houston, HPB, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA

Web AppBuilder for ArcGIS

City of Houston, HPB, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA | TCEQ |

1. Permittee Name – Generation Park Management District (Wastewater Treatment Facility 2)

Permit No. – WQ0015015001

Same permittee as proposed Wastewater Treatment Plant. This WWTP & Permit will be abandoned if proposed permit is approved and new WWTP is built.

2. Permittee Name – Generation Park Management District (West Wastewater Treatment Plant)

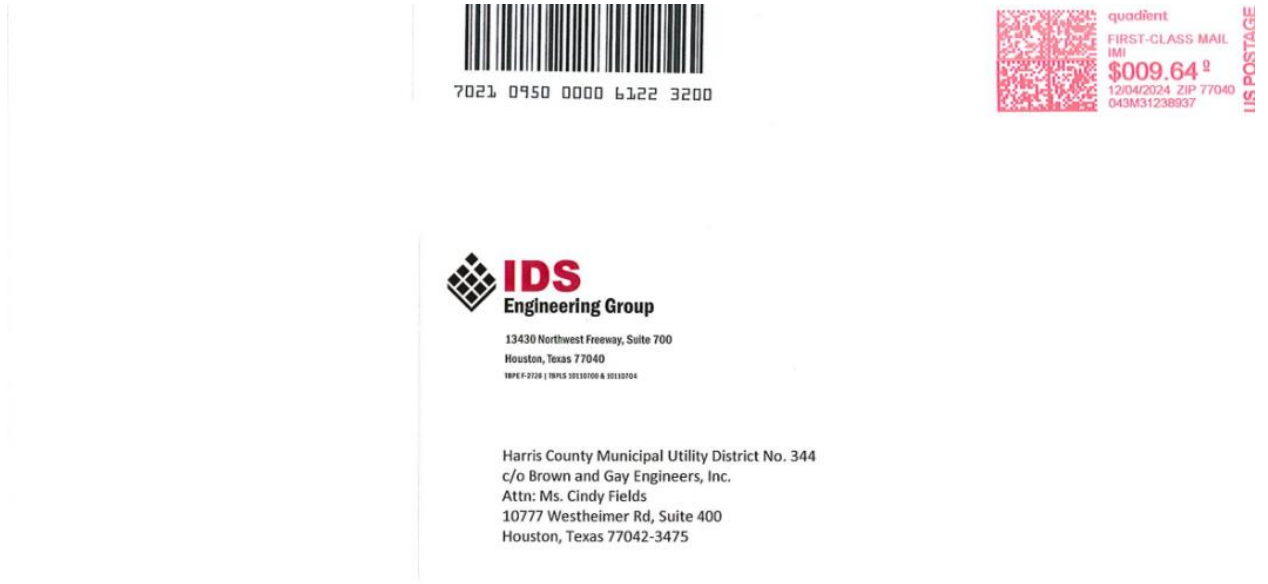
Permit No. – WQ0014625001

Same permittee as proposed Wastewater Treatment Plant. This plant was designed to serve the current and future needs of the west side of Generation Park Management District.

3. Permittee Name – Harris County Municipal Utility District No. 344

Permit No. – WQ0013483001

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page



December 3, 2024

Harris County Municipal Utility District No. 344
c/o Brown and Gay Engineers, Inc.
Attn: Ms. Cindy Fields
10777 Westheimer Rd, Suite 400
Houston, TX 77042-3475

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: 12/10/24
Name of Permittee: HCMUD344
Address: _____
Capacity Available Now (Yes/No?) 8
Willing to Expand Plant (Yes/No?) _____
Date Available: _____

Terms (if capacity available): _____
Name of Person Responding: CINDY FIELDS
Title: ENGINEER
Telephone: 713-488-8343
Fax: _____

\\DSEG.COM\FSE\PROJECTS\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (HCMUD 344).DOCX

4. Permittee Name – Holy Trinity Episcopal School of Greater Houston Inc

Permit No. – WQ0014897001

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page



December 3, 2024

Holy Trinity Episcopal School
11810 Lockwood Road
Houston, Texas 77044

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

A handwritten signature in blue ink that reads "AnnMarie G. Burns".

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: _____
Name of Permittee: _____
Address: _____

Capacity Available Now (Yes/No)? _____
Willing to Expand Plant (Yes/No)? _____
Date Available: _____

Terms (if capacity available): _____

Name of Person Responding: _____
Title: _____
Telephone: _____
Fax: _____

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (HOLY TRINITY EPISCOPAL SCHOOL).DOCX

No response received.

School no longer exists. See screenshot from website below (<https://hteshouston.org/>):



As of June 2023 Holy Trinity Episcopal School closed it's door to students. We are in the process of selling the property.

Student and Employment records requests can be placed by email or voicemail.

Email: info@hteshouston.org

Phone: 281-608-8252

Other requests will be forwarded to the responsible parties.

5. Permittee Name – Harris County Municipal Utility District No. 148

Permit No. – WQ0011818003

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page



December 3, 2024

Harris County Municipal Utility District No. 148
c/o Langford Engineering, Inc.
Attn: Mr. Craig Hajovsky
1080 W Sam Houston Pkwy N, Suite 200
Houston, Texas 77043-5014

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

A handwritten signature in blue ink that reads "AnnMarie Burns".

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: 1/15/2025
Name of Permittee: Harris County MUD No. 148
Address: 2929 ALLEN PARKWAY, SUITE 3150
HOUSTON, TEXAS 77019
Capacity Available Now (Yes/No)? No
Willing to Expand Plant (Yes/No)? No
Date Available: N/A

Terms (if capacity available): N/A

Name of Person Responding: Craig A. Hajovsky, P.E.
Title: Engineer for the District
Telephone: 713-461-3530
Fax: _____

\\\\IDSEG.COM\\FS\\PROJECTS\\1300\\133901204 TO 143 GENERATION PARK EAST\\ENG-PM\\CORRES\\ATTACHMENT CAPACITY INQUIRY LETTERS (HC MUD 148).DOCX

6. Permittee Name – Christian Tabernacle of Houston Inc

Permit No. – WQ0014513001

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page for copy of request. No response received.



December 3, 2024

Inspire Church (Christian Tabernacle of Houston)
11727 E. Sam Houston Pkwy N.
Houston, Texas 77044

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

A handwritten signature in blue ink that reads "AnnMarie G. Burns".

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: _____
Name of Permittee: _____
Address: _____

Capacity Available Now (Yes/No)? _____
Willing to Expand Plant (Yes/No)? _____
Date Available: _____

Terms (if capacity available): _____

Name of Person Responding: _____
Title: _____
Telephone: _____
Fax: _____

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (CHRISTIAN TABERNACLE).DOCX

7. Permittee Name – Tidwell Wastewater Utility LLC

Permit No. – WQ0014320001

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page for copy of request. No response received.



December 3, 2024

Tidwell Wastewater Utility, LLC
Attn: Mr. Ron Sasson
6776 Southwest Freeway, Suite 350
Houston, Texas 77074

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

A handwritten signature in blue ink that reads 'AnnMarie G. Burns'.

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: _____
Name of Permittee: _____
Address: _____

Capacity Available Now (Yes/No)? _____
Willing to Expand Plant (Yes/No)? _____
Date Available: _____

Terms (if capacity available): _____

Name of Person Responding: _____
Title: _____
Telephone: _____
Fax: _____

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (TIDWELL WASTEWATER UTILITY LLC).DOCX

8. Permittee Name – South Central Water Co

Permit No. – WQ0014875002

Permit has been sold to: Undine Development

Proof of Mailing Request via Certified Mail: correspondence with Undine Development via email & phone call

Copy of Request & Correspondence Received: See next page



December 5, 2024

Undine Group, LLC
Attn: Mr. Jeff Goebel
17681 Telge Road
Cypress, Texas 77429

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

AnnMarie Burns

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: 12/16/24
Name of Permittee: Undine
Address: 17681 Telge Rd
Cypress TX 77429
Capacity Available Now (Yes/No)? NO
Willing to Expand Plant (Yes/No)? NO
Date Available: _____

Terms (if capacity available): _____
Name of Person Responding: Jeff Goebel
Title: Business Dev
Telephone: 713-724-9321
Fax: _____

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (SOUTH CENTRAL WATER CO UNDINE).DOCX

9. Permittee Name – Sheldon Road Municipal Utility District

Permit No. – WQ0010541002

Proof of Mailing Request via Certified Mail:



Copy of Request & Correspondence Received: See next page



December 3, 2024

Sheldon Road Municipal Utility District
c/o HDR Engineering, Inc.
Attn: Mr. Ryan Nokelby
4828 Loop Central Dr., Suite 800
Houston, Texas 77081-2220

To Whom it May Concern:

We are writing to you on behalf of Generation Park Management District which is seeking a Texas Pollutant Discharge Elimination System (TPDES) discharge permit for a proposed Wastewater Treatment Plant. We are in the process of preparing the permit application for this operation. The projected ultimate flow is 2.8 MGD and the district's developer, McCord Development, Inc., currently owns a site sufficient in size for the facility.

As part of the TPDES discharge permit application process, the TCEQ requires that we contact each wastewater discharge permit holder within a three-mile radius of the proposed facility to solicit information about available treatment capacity. Your permitted wastewater treatment plant is within the three-mile radius and we are therefore inquiring about the availability of capacity.

Please complete the short questionnaire below and return within 5 days to our office. You may also email your response to aburns@idseg.com. Please call me at (832) 590-7153 if you have any questions or need additional information. Thank you for your timely response to this matter.

Respectfully,

AnnMarie Burns, E.I.T
Design Engineer

Reply

Date: 12/20/24
Name of Permittee: Sheldon Road MUD
Address: 9419 Lamkin Road,
Houston, Tx 77049
Capacity Available Now (Yes/~~No~~)?
Willing to Expand Plant (Yes/~~No~~)?
Date Available: N/A

Terms (if capacity available): N/A

Name of Person Responding: Ryan Nokelby, P.E.
Title: District Engineer
Telephone: 713-622-9264
Fax: 713-622-9265

X:\1300\133901204 TO 143 GENERATION PARK EAST\ENG-PM\CORRES\ATTACHMENT CAPACITY INQUIRY LETTERS (SHELDON RD MUD).DOCX

ATTACHMENT NO. 16

DESIGN CALCULATIONS

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations

Design Parameters

Influent Flow Characteristics - The hydraulic design of the facility must ensure that the plant will operate under the most extreme conditions anticipated. The plant process and hydraulic design for this facility are as follows:

Average Design Flow	0.12 MGD	Influent BOD ₅	350 mg / l
	83 gpm	Influent BOD5	350 lbs / day
Peaking Factor	4	Influent TSS	250 mg / l
Peak Flow	0.48 MGD	Influent NH3-N	75 mg/L
	333 gpm		
Effluent Characteristics			
BOD ₅ S _e	10 mg/L		
TSS TSS _e	15 mg/L		
NH ₃ -N N _e	3 mg/L		

The calculations below are based on minimum TCEQ sizing parameters but may not reflect actual treatment unit dimensions.
 Values shown are the minimum that will be provided.

Aeration

Criteria	Value	Regulation Section
Maximum Organic Loading Rate (lbs BOD ₅ /day/1000 cu ft)	35	217.154(b)(Table F.1)
Reactor MLSSS Level at normal operating level (mg/l)	3000-5000	

Aeration Volume Required 10,008 cu. ft.

Volume Provided:

Length	40 ft
Width	12 ft
SWD	10.45 ft

Tanks 2

Volume Provided 10,032 cu. ft.

Effective Organic Loading 34.92 lbs BOD₅/day/1000 cu. ft.

Clarifier

Criteria	Value	Regulation Section
TCEQ Maximum Surface Loading (Qpk)	1200 gal/day/s.f. at peak flow	217.154(c)(Table F.2)
TCEQ Minimum Detention Time (Qpk)	1.8 hours at peak flow	217.154(c)(Table F.2)
TCEQ Maximum Weir Loading (Qpk)	30000 gal/day/ft	217.152(c)(4)
TCEQ Minimum Side Water Depth (SWD)	10 ft	217.152(g)(2)(A)/(B)
TCEQ Maximum Stilling Well Velocity	0.15 ft/sec	217.152(a)(4)

Surface Area Required Required 400 sq. ft.

Volume Required 4813 cu. ft.

Length of weir required 16 ft.

Volume Provided:

Diameter	35 ft
SWD	10.00 ft
# Tanks	1
Weir Diameter	33 ft

Surface Area Provided 962 sq. ft.

Volume Provided 9,621 cu. ft.

Weir length provided 104 ft.

IDS Engineering Group

Project: Generation Park East WWTP
Job Number: 1339-012-04
Design By: VHW
Checked By: KP
Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations

CHEMICAL (CHLORINE) DISINFECTION**Chlorination**

Minimum Cl ₂ Contact Time	20 minutes	<i>Regulation Section</i> 217.281(b)(1)
Chlorine basin volume required	6,667 gallons	
<u>Phase I</u>		
Length	20 ft	
Width	12 ft	
Depth @ design	8.58 ft	
Number of Basins	1	
Volume Provided	15,403 gallons	
Volume provided greater than or equal to required volume	YES	
TCEQ min. design Cl ₂ dose	8 mg / l	217.272(b)
Cylinder size	150 lbs	
Withdrawal factor	1 (Use 1.0 for 150 # cylinder and 8.0 for 2000 # cylinders)	217.273(a)(1)
Threshold Temperatures (Low Ambient Temperature?)	65 Use 65 for indoor storage	217.273(a)(1)
Capacity of chlorine disinfection system @ max. flow	32 lbs per day	217.272(a) K.1
Avg. daily chlorine usage @ average flow	8 lbs per day	
Max. withdrawal rate per cylinder	65 lbs per day (Formula for vacuum systems only)	217.273(a)(1) K.2
No. of Cylinders required per bank	1	
One bank of cylinders will last	19 days at average flow and typical chlorine usage	

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations

Digesters

TCEQ Minimum Sludge Retention Time 40 days 217.249(t)(4)(B)(Table J.2)
 TCEQ Min. Volatile Solids Loading Rate 100 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)
 TCEQ Max. Volatile Solids Loading Rate 200 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)

Influent BOD₅ 350 lb/ day
 Effluent BOD₅ 10 lb/ day
 BOD₅ to Digester 340 lb/ day

Volume Required from Metcalf and Eddy, "Wastewater Engineering," 4th Edition

Hydraulic Detention Time of the Aeration Basins

$$\theta (\text{Gal}) = \left(\frac{\text{Volume of Aeration Basins in Gallons}}{\text{Average Influent Flow in Gallons / Day}} \right) * 24 \text{ hrs/day}$$

BOD₅ Utilized

$$\text{BOD}_{5\text{ utilized}} \left(\frac{\text{lbs BOD}_5}{\text{day}} \right) = Q * (S_i - S_e)$$

NH₃-N Utilized

$$\text{NH}_{3\text{ utilized}} \left(\frac{\text{lbs NH}_3}{\text{day}} \right) = Q * (N_i - N_e)$$

Hydraulic Detention Time of Aeration Basins / SBRs 15.01 Hours

BOD₅ utilized 340 lb BOD₅ / day
 NH₃ utilized 72 lb NH₃ -N / day

S BOD₅ Concentration
 N NH₃-N Concentration
 i Influent (subscript)
 e Effluent (subscript)
 Q Average Design Flow
 Q_{design} Peak Flow
 Q_w Waste Sludge Flow to Digester
 X_w Waste Sludge Concentration 8,500 mg/L
 Y Yield Coefficient 0.6 VSS/lb BOD₅
 Y_n Yield Coefficient (nitrification) 0.15 VSS/lb NH₃-N
 k_d Endogenous Decay Coefficient 0.06 /day
 k_{dn} Endogenous Decay Coeff. (nitrification) 0.30 /day
 P_n Volatile Fraction of X 0.70
 P_n MLVSS/MLSS Ratio 0.70
 S_{sl} Specific Gravity of Sludge 1.005
 X Sludge Concentration in Digester 25,000 mg/L
 P_s Percent Solids in Digester 2.5
 TSS_% % of TSS that is inert 50 %
 ρ_w Specific Weight of Water 8.34 lbs / gallon

Typical Values			
Variable	Range		Source
X _w	0.8	2.5	M&E, 4th ed., pg. 14
Y	0.4	0.8	M&E, 4th ed., pg. 58
Y _n	0.04	0.29	WEF MoP 8, Vol I, p
k _d	0.06	0.15	M&E, 4th ed., pg. 58
k _{dn}	0.3	3.0	WEF MoP 8, Vol I, p
P _n	0.59	0.88	M&E, 4th ed., pg. 14
S _{sl}	1.005	1.005	M&E, 4th ed., pg. 14
X	15,000	40,000	M&E, 4th ed., pg. 14
P _s	1.5	4	M&E, 4th ed., pg. 14

Carbonaceous Yield Coefficient Observed

$$Y_{c,obs} = \left(\frac{Y}{1 + k_d * \theta} \right)$$

M&E, 4th ed. Pg. 595 Nitrogenous Yield Coefficient

M&E, 4th ed. Pg. 595

$$Y_{n,obs} = \left(\frac{Y_n}{1 + k_{dn} * \theta} \right)$$

Carbonaceous Sludge Production (MLVSS)

$$P_{x,c} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{c,obs} * Q * (S_i - S_e) = Y_{c,obs} * \text{BOD}_{5\text{ utilized}}$$

M&E, 4th ed. Pg. 681 Nitrogenous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681

$$P_{x,n} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{n,obs} * Q * (N_i - N_e) = Y_{n,obs} * \text{NH}_{3\text{ utilized}}$$

Inert Sludge Production

M&E, 4th ed. Pg. 681

$$P_{x,i} \left(\frac{\text{lb}}{\text{day}} \right) = Q_{\text{design}} * \text{TSS}_{\%} * (\text{TSS}_i - \text{TSS}_e) * 8.34$$

Total Sludge Production

M&E, 4th ed. Pg. 682

$$P_x \left(\frac{\text{lb}}{\text{day}} \right) = P_{x,c} + P_{x,n} + P_{x,i}$$

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations

Waste Sludge Flow to Digester

M&E, 4th ed. Pg. 1458

$$Q_w = \frac{\text{Total Sludge Production, Dry Solids}}{\rho_w S_{sl} P_s}$$

Required Volume

M&E, 4th ed. Pg. 1537

$$V \text{ (Gal)} = \left(\frac{Q_w}{X} \right) \left(\frac{(X_w + Y * S_i)}{k_d * P_n + \frac{1}{SRT}} \right)$$

$Y_{c,obs}$ Carbonaceous Yield Coefficient
 $P_{x,c}$ Carbonaceous Sludge Production

0.58
 197 lb / day (MLVSS)
 281 lb / day (MLSS)

$Y_{n,obs}$ Nitrogenous Yield Coefficient
 $P_{x,n}$ Nitrogenous Sludge Production

0.13
 9.10 lb / day (MLVSS)
 13.00 lb / day (MLSS)

Inert Sludge Production (TSS), Dry Solids

118 lb / day

Total Sudge Production, Volatile Solids

206 lb / day

Volatile Solids Loading Rate

41 lb / day / 1,000 cu. ft.

Total Sudge Production, Dry Solids

500 lb / day

Q_w Waste Sludge Flow to Digester

2,386 gallons / day

Digester Volume Required

12,408 gallons
1,659 cu. ft.

Volume Provided:

Length	20 ft
Width	12 ft
SWD	10.5
# Tanks	2
Volume	5,040 cu. ft.

Total Digester Vol. available

5,040 cu. ft.

Volume greater than required

YES

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase I - 0.120 MGD

Final Process Calculations

Air Requirements

Criteria	Value	Regulation
Air requirements for Aeration basins	2.12 lb oxygen per lb BOD	217.155(a)(3)
Air requirements for digesters	30 SCFM /1000 cu. ft.	217.249(d)(1)(C)***
Air requirements for post aeration	20 SCFM /1000 cu. ft.	not regulated by TCEQ
Minimum mixing requirements	0.12 SCFM /sq. ft.	217.155 (b)(3)(B)
Diffuser transfer efficiency	6.5% (In wastewater)	217.155 (b)(2)(B)
Design Submergence	10.00 feet	
Diffuser Submergence Correction Factor	1.56 @ design flow depth	217.155 (b)(2)(D)
Corrected Air Flowrate @ Design Submergence =	718 SCFM	
$= \frac{\{(\text{lb BOD}) * (\text{lb Oxygen} / \text{lb BOD})\} * \text{Correction Factor}}{(\text{T.E.}) (\text{lb Oxygen} / \text{lb air}) (\text{lb air} / \text{cu. ft.}) (\text{min} / \text{day})}$		217.155 (b)(2)(C)
Air required for digesters:	151 SCFM	
Air required for post aeration	41 SCFM	
Air Requirements for air lift pumps	40 SCFM	
Total Air Requirements	950	
Use (3) 500 SCFM blowers		

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations

Design Parameters

Influent Flow Characteristics - The hydraulic design of the facility must ensure that the plant will operate under the most extreme conditions anticipated. The plant process and hydraulic design for this facility are as follows:

Average Design Flow	1.05 MGD	Influent BOD ₅	350 mg / l
	729 gpm	Influent BOD5	3065 lbs / day
Peaking Factor	4	Influent TSS	250 mg / l
Peak Flow	4.2 MGD		
	2,917 gpm	Influent NH3-N	75 mg/L
Effluent Characteristics			
BOD ₅ S _e	10 mg/L		
TSS TSS _e	15 mg/L		
NH ₃ -N N _e	3 mg/L		

The calculations below are based on minimum TCEQ sizing parameters but may not reflect actual treatment unit dimensions. Values shown are the minimum that will be provided.

SBR FOUR BASIN SYSTEM

Criteria	Value	Regulation Section
Maximum Organic Loading Rate (lbs BOD ₅ /day/1000 cu ft)	35	217.156(a)(6)
Reactor MLSSS Level at normal operating level (mg/l)	3000-5000	217.156(a)(7)
Min Side Water Depth (ft)	12	217.156(a)(9)

Aeration Volume Required 87,570 cu. ft.

Volume Provided:

SBR Cycle Time @ Desing ADf 288 min
 SBR Cycle Time @ Peak Flow 144 min

Design Side Water Depths

Length	75 ft	24.00 ft - Design max water level at peak flow w/ all basins operating
Width	25 ft	17.74 ft - Water level at design flow w/ all basins operating
		18.99 ft - Water level at design flow w/ 1 basin out of service
		21.49 ft - Calculated max water level at peak flow w/ all basins operating
		23.98 ft - Calculated max water level at peak flow w/ 1 basin out of service
# Tanks	4	14.00 ft - Minimum water level

Volume (w/ one basin out of service per TCEQ 217.156 (c) 106,825 cu. ft.

Effective Organic Loading with one basin out of service at design water depth 28.69 lbs BOD₅/day/1000 cu. ft.

IDS Engineering Group

Project: Generation Park East WWTP
Job Number: 1339-012-04
Design By: VHW
Checked By: KP
Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations

CHEMICAL (CHLORINE) DISINFECTION**Chlorination**

		<i>Regulation Section</i>
Minimum Cl ₂ Contact Time	20 minutes	217.281(b)(1)
Max. Decant Rate per SBR Basins	3,889	
Maximum No. of Basins Decanting at one time	1	
Chlorine basin volume required at max. decant rate	77,778 gallons	
Phase I		
Length	58 ft	
Width	8 ft	
Depth @ design	11.5 ft	
Number of Basins	2	
Volume Provided	79,827 gallons	
Volume provided greater than or equal to required volume	YES	
Max. Decant Flow Rate	3,889 gpm	
Daily Average Flow	729 gpm	
TCEQ min. design Cl ₂ dose	8 mg / l	217.272(b)
Cylinder size	2000 lbs	
Withdrawal factor	8 (Use 1.0 for 150 # cylinder and 8.0 for 2000 # cylinders)	217.273(a)(1)
Threshold Temperatures (Low Ambient Temperature?)	65 Use 65 for indoor storage	217.273(a)(1)
Capacity of chlorine disinfection system @ max. flow	374 lbs per day	217.272(a) K.1
Avg. daily chlorine usage @ average flow	70 lbs per day	
Max. withdrawal rate per cylinder	520 lbs per day (Formula for vacuum systems only)	217.273(a)(1) K.2
No. of Cylinders required per bank	1	
One bank of cylinders will last	29 days at average flow and typical chlorine usage	

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations

Digesters

TCEQ Minimum Sludge Retention Time 40 days 217.249(t)(4)(B)(Table J.2)
 TCEQ Min. Volatile Solids Loading Rate 100 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)
 TCEQ Max. Volatile Solids Loading Rate 200 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)

Influent BOD₅ 3065 lb/ day
 Effluent BOD₅ 88 lb/ day
 BOD₅ to Digester 2977 lb/ day

Volume Required from Metcalf and Eddy, "Wastewater Engineering," 4th Edition

Hydraulic Detention Time of the Aeration Basins

$$\theta (\text{Gal}) = \left(\frac{\text{Volume of Aeration Basins in Gallons}}{\text{Average Influent Flow in Gallons / Day}} \right) * 24 \text{ hrs/day}$$

BOD₅ Utilized

$$\text{BOD}_{5\text{ utilized}} \left(\frac{\text{lbs BOD}_5}{\text{day}} \right) = Q * (S_i - S_e)$$

NH₃-N Utilized

$$\text{NH}_{3\text{ utilized}} \left(\frac{\text{lbs NH}_3}{\text{day}} \right) = Q * (N_i - N_e)$$

Hydraulic Detention Time of Aeration Basins / SBRs 18.26 Hours

BOD₅ utilized 2,977 lb BOD₅ / day
 NH₃ utilized 631 lb NH₃-N / day

S BOD₅ Concentration
 N NH₃-N Concentration
 i Influent (subscript)
 e Effluent (subscript)
 Q Average Design Flow
 Q_{design} Peak Flow
 Q_w Waste Sludge Flow to Digester
 X_w Waste Sludge Concentration 8,500 mg/L
 Y Yield Coefficient 0.6 VSS/lb BOD₅
 Y_n Yield Coefficient (nitrification) 0.15 VSS/lb NH₃-N
 k_d Endogenous Decay Coefficient 0.06 /day
 k_{dn} Endogenous Decay Coeff. (nitrification) 0.30 /day
 P_n Volatile Fraction of X 0.70
 P_n MLVSS/MLSS Ratio 0.70
 S_{sl} Specific Gravity of Sludge 1.005
 X Sludge Concentration in Digester 25,000 mg/L
 P_s Percent Solids in Digester 2.5
 TSS_% % of TSS that is inert 50 %
 ρ_w Specific Weight of Water 8.34 lbs / gallon

Typical Values			
Variable	Range		Source
X _w	0.8	2.5	M&E, 4th ed., pg. 14
Y	0.4	0.8	M&E, 4th ed., pg. 58
Y _n	0.04	0.29	WEF MoP 8, Vol I, p
k _d	0.06	0.15	M&E, 4th ed., pg. 58
k _{dn}	0.3	3.0	WEF MoP 8, Vol I, p
P _n	0.59	0.88	M&E, 4th ed., pg. 14
S _{sl}	1.005	1.005	M&E, 4th ed., pg. 14
X	15,000	40,000	M&E, 4th ed., pg. 14
P _s	1.5	4	M&E, 4th ed., pg. 14

Carbonaceous Yield Coefficient Observed

$$Y_{c,obs} = \left(\frac{Y}{1 + k_d * \theta} \right)$$

M&E, 4th ed. Pg. 595 Nitrogenous Yield Coefficient

M&E, 4th ed. Pg. 595

$$Y_{n,obs} = \left(\frac{Y_n}{1 + k_{dn} * \theta} \right)$$

Carbonaceous Sludge Production (MLVSS)

$$P_{x,c} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{c,obs} * Q * (S_i - S_e) = Y_{c,obs} * \text{BOD}_{5\text{ utilized}}$$

M&E, 4th ed. Pg. 681 Nitrogenous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681

$$P_{x,n} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{n,obs} * Q * (N_i - N_e) = Y_{n,obs} * \text{NH}_{3\text{ utilized}}$$

Inert Sludge Production

M&E, 4th ed. Pg. 681

$$P_{x,i} \left(\frac{\text{lb}}{\text{day}} \right) = Q_{\text{design}} * \text{TSS}_{\%} * (\text{TSS}_i - \text{TSS}_e) * 8.34$$

Total Sludge Production

M&E, 4th ed. Pg. 682

$$P_x \left(\frac{\text{lb}}{\text{day}} \right) = P_{x,c} + P_{x,n} + P_{x,i}$$

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations

Waste Sludge Flow to Digester

M&E, 4th ed. Pg. 1458

$$Q_w = \frac{\text{Total Sludge Production, Dry Solids}}{\rho_w S_{sl} P_s}$$

Required Volume

M&E, 4th ed. Pg. 1537

$$V \text{ (Gal)} = \left(\frac{Q_w}{X} \right) \left(\frac{(X_w + Y * S_i)}{k_d * P_n + \frac{1}{SRT}} \right)$$

$Y_{c,obs}$ Carbonaceous Yield Coefficient
 $P_{x,c}$ Carbonaceous Sludge Production

0.57
 1,708 lb / day (MLVSS)
 2,441 lb / day (MLSS)

$Y_{n,obs}$ Nitrogenous Yield Coefficient
 $P_{x,n}$ Nitrogenous Sludge Production

0.12
 77.00 lb / day (MLVSS)
 110.00 lb / day (MLSS)

Inert Sludge Production (TSS), Dry Solids

1029 lb / day

Total Sudge Production, Volatile Solids

1785 lb / day

Volatile Solids Loading Rate

118 lb / day / 1,000 cu. ft.

Total Sudge Production, Dry Solids

4336 lb / day

Q_w Waste Sludge Flow to Digester

20,693 gallons / day

Digester Volume Required

107,602 gallons
14,385 cu. ft.

Volume Provided:

Length	60 ft
Width	12 ft
SWD	10.5
# Tanks	2
Volume	15,120 cu. ft.

Total Digester Vol. available

15,120 cu. ft.

Volume greater than required

YES

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase II - 1.05 MGD

Final Process Calculations

Air Requirements

Criteria	Value	Regulation
Air requirements for SBR basins	2.12 lb oxygen per lb BOD	217.155(a)(3)
Air requirements for digesters	30 SCFM /1000 cu. ft.	217.249(d)(1)(C)***
Air requirements for post aeration	10 SCFM /1000 cu. ft.	not regulated by TCEQ
Minimum mixing requirements	0.12 SCFM /sq. ft.	217.155 (b)(3)(B)
Diffuser transfer efficiency	11.7% (In wastewater)	217.155 (b)(2)(B)
Design Submergence	17.74 feet	
Diffuser Submergence Correction Factor	0.75 @ design flow depth	217.155 (b)(2)(D)
Number of Basins, with one out of service	3	
Design Aeration Time	0.50 days/basin	
Corrected Air Flowrate @ Design Submergence = $= \frac{\{(lb\ BOD) * (lb\ Oxygen / lb\ BOD)\} * Correction\ Factor}{(T.E.) (lb\ Oxygen / lb\ air) (lb\ air / cu.\ ft.) (min / day)}$	1668 SCFM	217.155 (b)(2)(C)
Minimum Air Flowrate @ Design Aeration Time Per Basin = $\frac{Corrected\ Air\ Flow\ Rate}{Design\ Aeration\ Time\ X\ No.\ of\ Basins}$	1112 SCFM per basin	
Verify mixing requirements:	0.22 OK	
Provide 4 SBR Blowers @	1112 SCFM each (1 per basin w/ 1 standby)	
Maximum water depth over diffuser	25 feet	top of SBR basin minus 1 ft for hieght of diffuse
Pressure loss in piping	0.7 psi	
Pressure @ blowers	11.3 psi	
Air required for digesters:	454 SCFM	
Provide 3 Digester Blowers @	227 SCFM each (1 per basin w/ 1 standby)	
Air required for post aeration	107 SCFM	
Provide 2 Post-Air Blower(s) @	53 SCFM	

IDS Engineering Group

Project: Generation Park East WWTP

Job Number:

Design By: VHW

Checked By: KP

Date: 2/25/2025

Description:

Phase II - 1.05 MGD

Final Process CalculationsDecanter Sizing Per TCEQ Chapter 217.156(b)(8), requiring the decant system to accommodate the design flow with a constant cycle time with the largest tank out of serviceBasin DimensionsWidth 25 feetLength 75 feetMin SWD 14 feetMax SWD 24.5 feet

Condition No. 1: -Basins in service

4

basins

All Basins in Service

-Decant flow of

3,889

gpm

% of Design Flow	Flow Rate MGD	No. of Cycles/day	Total Cycle Time minutes	Batch Volume Gallon	Fill React minutes	React minutes	Fill Settle minutes	Settle minutes	Fill Decant minutes	Decant minutes	Fill Idle minutes	Idle minutes	Total Fill minutes	Total React minutes	Total Settle minutes	Total Decant minutes	Volume Decant gal	Decant Depth ft.	Basin water Surface Elevation ft
100%	1.05	5.00	288	52,500	173	0	45	0	14	0	56.7	0	288	173	45	14	52,500	3.7	17.74
150%	1.58	5.00	288	78,750	173	0	45	0	20	0	50.0	0	288	173	45	20	78,750	5.6	19.61
200%	2.10	5.00	288	105,000	173	0	45	0	27	0	43.2	0	288	173	45	27	105,000	7.5	21.49
250%	2.63	6.66	216	98,536	130	0	45	0	25	0	16	0	216	130	45	25	98,536	7.0	21.03
300%	3.15	6.66	216	118,243	130	0	45	0	30	0	11	0	216	130	45	30	118,243	8.4	22.43
350%	3.68	10.00	144	91,875	71	0	45	0	24	0	4	0	144	71	45	24	91,875	6.6	20.55
400%	4.20	10.00	144	105,000	67	0	45	0	27	0	5	0	144	67	45	27	105,000	7.5	21.49

Condition No. 2: -Basins in service

3

basins

One Basin Out of Service

-Decant flow of

3,889

gpm

% of Design Flow	Flow Rate MGD	No. of Cycles/day	Total Cycle Time minutes	Batch Volume Gallon	Fill React minutes	React minutes	Fill Settle minutes	Settle minutes	Fill Decant minutes	Decant minutes	Fill Idle minutes	Idle minutes	Total Fill minutes	Total React minutes	Total Settle minutes	Total Decant minutes	Volume Decant gal	Decant Depth ft.	Basin water Surface Elevation ft
100%	1.05	5.00	288	70,000	144	0	45	0	18	0	81.0	0	288	144	45	18	70,000	5.0	18.99
150%	1.58	5.00	288	105,000	144	0	45	0	27	0	72.0	0	288	144	45	27	105,000	7.5	21.49
200%	2.10	5.00	288	140,000	144	0	45	0	36	0	63.0	0	288	144	45	36	140,000	10.0	23.98
250%	2.63	6.66	216	131,381	108	0	45	0	34	0	29	0	216	108	45	34	131,381	9.4	23.37
300%	3.15	10.00	144	105,000	72	0	45	0	27	0	0	0	144	72	45	27	105,000	7.5	21.49
350%	3.68	10.00	144	122,500	68	0	45	0	32	0	-1	0	144	68	45	32	122,500	8.7	22.73
400%	4.20	10.00	144	140,000	63	0	45	0	36	0	0	0	144	63	45	36	140,000	10.0	23.98

Decant Size from Above

3,889

gpm

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations

Design Parameters

Influent Flow Characteristics - The hydraulic design of the facility must ensure that the plant will operate under the most extreme conditions anticipated. The plant process and hydraulic design for this facility are as follows:

Average Design Flow	2.8 MGD	Influent BOD ₅	350 mg / l
	1,944 gpm	Influent BOD5	8173 lbs / day
Peaking Factor	4	Influent TSS	300 mg / l
Peak Flow	11.2 MGD	Influent NH3-N	75 mg/L
	7,778 gpm		
Effluent Characteristics			
BOD ₅ S _e	10 mg/L		
TSS TSS _e	15 mg/L		
NH ₃ -N N _e	3 mg/L		

The calculations below are based on minimum TCEQ sizing parameters but may not reflect actual treatment unit dimensions. Values shown are the minimum that will be provided.

SBR FOUR BASIN SYSTEM

Criteria	Value	Regulation Section
Maximum Organic Loading Rate (lbs BOD ₅ /day/1000 cu ft)	35	217.156(a)(6)
Reactor MLSSS Level at normal operating level (mg/l)	3000-5000	217.156(a)(7)
Min Side Water Depth (ft)	12	217.156(a)(9)

Aeration Volume Required 233,520 cu. ft.

Volume Provided:

SBR Cycle Time @ Desing ADf 288 min
 SBR Cycle Time @ Peak Flow 144 min

Design Side Water Depths

Length	75 ft	24.00 ft - Design max water level at peak flow w/ all basins operating
Width	25 ft	17.44 ft - Water level at design flow w/ all basins operating
		17.99 ft - Water level at design flow w/ 1 basin out of service
		21.87 ft - Calculated max water level at peak flow w/ all basins operating
		22.98 ft - Calculated max water level at peak flow w/ 1 basin out of service
# Tanks	9	13.00 ft - Minimum water level

Volume (w/ one basin out of service per TCEQ 217.156 (c) 269,866 cu. ft.

Effective Organic Loading with one basin out of service at design water depth 30.29 lbs BOD₅/day/1000 cu. ft.

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations

CHEMICAL (CHLORINE) DISINFECTION**Chlorination**

Minimum Cl ₂ Contact Time	20 minutes	<i>Regulation Section</i> 217.281(b)(1)
Max. Decant Rate per SBR Basins	3,889	
Maximum No. of Basins Decanting at one time	2	
Chlorine basin volume required at max. decant rate	155,556 gallons	
Phase I		
Length	58 ft	
Width	8 ft	
Depth @ design	11.5 ft	
Number of Basins	4	
Volume Provided	159,653 gallons	
Volume provided greater than or equal to required volume	YES	
Max. Decant Flow Rate	7,778 gpm	
Daily Average Flow	1,944 gpm	
TCEQ min. design Cl ₂ dose	8 mg / l	217.272(b)
Cylinder size	2000 lbs	
Withdrawal factor	8 (Use 1.0 for 150 # cylinder and 8.0 for 2000 # cylinders)	217.273(a)(1)
Threshold Temperatures (Low Ambient Temperature?)	65 Use 65 for indoor storage	217.273(a)(1)
Capacity of chlorine disinfection system @ max. flow	747 lbs per day	217.272(a) K.1
Avg. daily chlorine usage @ average flow	187 lbs per day	
Max. withdrawal rate per cylinder	520 lbs per day (Formula for vacuum systems only)	217.273(a)(1) K.2
No. of Cylinders required per bank	2	
One bank of cylinders will last	21 days at average flow and typical chlorine usage	

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations

Digesters

TCEQ Minimum Sludge Retention Time 40 days 217.249(t)(4)(B)(Table J.2)
 TCEQ Min. Volatile Solids Loading Rate 100 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)
 TCEQ Max. Volatile Solids Loading Rate 200 lb / day / 1,000 cu. ft. 217.249(t)(7)(D)

Influent BOD₅ 8173 lb/ day
 Effluent BOD₅ 234 lb/ day
 BOD₅ to Digester 7940 lb/ day

Volume Required from Metcalf and Eddy, "Wastewater Engineering," 4th Edition

Hydraulic Detention Time of the Aeration Basins

$$\theta (\text{Gal}) = \left(\frac{\text{Volume of Aeration Basins in Gallons}}{\text{Average Influent Flow in Gallons / Day}} \right) * 24 \text{ hrs/day}$$

BOD₅ Utilized

$$\text{BOD}_{5\text{ utilized}} \left(\frac{\text{lbs BOD}_5}{\text{day}} \right) = Q * (S_i - S_e)$$

NH₃-N Utilized

$$\text{NH}_{3\text{ utilized}} \left(\frac{\text{lbs NH}_3}{\text{day}} \right) = Q * (N_i - N_e)$$

Hydraulic Detention Time of Aeration Basins / SBRs 17.30 Hours

BOD₅ utilized 7,940 lb BOD₅ / day

NH₃ utilized 1,681 lb NH₃-N / day

S BOD₅ Concentration
 N NH₃-N Concentration
 i Influent (subscript)
 e Effluent (subscript)
 Q Average Design Flow
 Q_{design} Peak Flow
 Q_w Waste Sludge Flow to Digester
 X_w Waste Sludge Concentration 8,500 mg/L
 Y Yield Coefficient 0.6 VSS/lb BOD₅
 Y_n Yield Coefficient (nitrification) 0.15 VSS/lb NH₃-N
 k_d Endogenous Decay Coefficient 0.06 /day
 k_{dn} Endogenous Decay Coeff. (nitrification) 0.30 /day
 P_n Volatile Fraction of X 0.70
 MLVSS/MLSS Ratio 0.70
 S_{sl} Specific Gravity of Sludge 1.005
 X Sludge Concentration in Digester 25,000 mg/L
 P_s Percent Solids in Digester 2.5
 TSS_% % of TSS that is inert 50 %
 ρ_w Specific Weight of Water 8.34 lbs / gallon

Typical Values			
Variable	Range		Source
X _w	0.8	2.5	M&E, 4th ed., pg. 14
Y	0.4	0.8	M&E, 4th ed., pg. 58
Y _n	0.04	0.29	WEF MoP 8, Vol I, p
k _d	0.06	0.15	M&E, 4th ed., pg. 58
k _{dn}	0.3	3.0	WEF MoP 8, Vol I, p
P _n	0.59	0.88	M&E, 4th ed., pg. 14
S _{sl}	1.005	1.005	M&E, 4th ed., pg. 14
X	15,000	40,000	M&E, 4th ed., pg. 14
P _s	1.5	4	M&E, 4th ed., pg. 14

Carbonaceous Yield Coefficient Observed

M&E, 4th ed. Pg. 595 Nitrogenous Yield Coefficient

M&E, 4th ed. Pg. 595

$$Y_{c,obs} = \left(\frac{Y}{1 + k_d * \theta} \right)$$

$$Y_{n,obs} = \left(\frac{Y_n}{1 + k_{dn} * \theta} \right)$$

Carbonaceous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681 Nitrogenous Sludge Production (MLVSS)

M&E, 4th ed. Pg. 681

$$P_{x,c} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{c,obs} * Q * (S_i - S_e) = Y_{c,obs} * \text{BOD}_{5\text{ utilized}}$$

$$P_{x,n} \left(\frac{\text{lb}}{\text{day}} \right) = Y_{n,obs} * Q * (N_i - N_e) = Y_{n,obs} * \text{NH}_{3\text{ utilized}}$$

Inert Sludge Production

M&E, 4th ed. Pg. 681

$$P_{x,i} \left(\frac{\text{lb}}{\text{day}} \right) = Q_{\text{design}} * \text{TSS}_{\%} * (\text{TSS}_i - \text{TSS}_e) * 8.34$$

Total Sludge Production

M&E, 4th ed. Pg. 682

$$P_x \left(\frac{\text{lb}}{\text{day}} \right) = P_{x,c} + P_{x,n} + P_{x,i}$$

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations

Waste Sludge Flow to Digester

M&E, 4th ed. Pg. 1458

$$Q_w = \frac{\text{Total Sludge Production, Dry Solids}}{\rho_w S_{sl} P_s}$$

Required Volume

M&E, 4th ed. Pg. 1537

$$V \text{ (Gal)} = \left(\frac{Q_w}{X} \right) \left(\frac{(X_w + Y * S_i)}{k_d * P_n + \frac{1}{SRT}} \right)$$

$Y_{c,obs}$ Carbonaceous Yield Coefficient
 $P_{x,c}$ Carbonaceous Sludge Production

0.58
 4,566 lb / day (MLVSS)
 6,523 lb / day (MLSS)

$Y_{n,obs}$ Nitrogenous Yield Coefficient
 $P_{x,n}$ Nitrogenous Sludge Production

0.12
 207.36 lb / day (MLVSS)
 296.22 lb / day (MLSS)

Inert Sludge Production (TSS), Dry Solids

3328 lb / day

Total Sludge Production, Volatile Solids

4774 lb / day

Volatile Solids Loading Rate

95 lb / day / 1,000 cu. ft.

Total Sludge Production, Dry Solids

11593 lb / day

Q_w Waste Sludge Flow to Digester

55,326 gallons / day

Digester Volume Required

287,695 gallons
38,462 cu. ft.

Volume Provided:

Length	25 ft
Width	40 ft
SWD	12.5
# Tanks	4
Volume	50,000 cu. ft.

Total Digester Vol. available

50,000 cu. ft.

Volume greater than required

YES

IDS Engineering Group

Project: Generation Park East WWTP
 Job Number: 1339-012-04
 Design By: VHW
 Checked By: KP
 Date: 2/25/2025

Description: Phase III - 2.8 MGD

Final Process Calculations

Air Requirements

Criteria		Value	Regulation
Air requirements for SBR basins	$O_2 R = \frac{1.2(BOD_5) + 4.3(NH_3 - N)}{BOD_5}$	2.12 lb oxygen per lb BOD	217.155(a)(3)
Air requirements for digesters		30 SCFM /1000 cu. ft.	217.249(d)(1)(C)***
Air requirements for post aeration		10 SCFM /1000 cu. ft.	not regulated by TCEQ
Minimum mixing requirements		0.12 SCFM /sq. ft.	217.155 (b)(3)(B)
Diffuser transfer efficiency		11.7% (In wastewater)	217.155 (b)(2)(B)
Design Submergence		17.44 feet	
Diffuser Submergence Correction Factor		0.76 @ design flow depth	217.155 (b)(2)(D)
Number of Basins, with one out of service		8	
Design Aeration Time		0.50 days/basin	
Corrected Air Flowrate @ Design Submergence =		4557 SCFM	
$= \{(\text{lb BOD}) * (\text{lb Oxygen} / \text{lb BOD})\} * \text{Correction Factor}$ $(\text{T.E.}) (\text{lb Oxygen} / \text{lb air}) (\text{lb air} / \text{cu. ft.}) (\text{min} / \text{day})$			217.155 (b)(2)(C)
Minimum Air Flowrate @ Design Aeration Time Per Basin =		1139 SCFM per basin	
$\frac{\text{Corrected Air Flow Rate}}{\text{Design Aeration Time X No. of Basins}}$			
Verify mixing requirements:		0.27 OK	
Provide 9 SBR Blowers @		1139 SCFM each (1 per basin w/ 1 standby)	
Maximum water depth over diffuser		25 feet	top of SBR basin minus 1 ft for hieght of diffuse
Pressure loss in piping		0.7 psi	
Pressure @ blowers		11.3 psi	
Air required for digesters:		1500 SCFM	
Provide 5 Digester Blowers @		375 SCFM each (1 per basin w/ 1 standby)	
Air required for post aeration		213 SCFM	
Provide 4 Post-Air Blower(s) @		53 SCFM	

IDS Engineering Group

Project: Generation Park East WWTP

Job Number:

Design By: VHW

Checked By: KP

Date: 2/25/2025

Description:

Phase III- 2.8 MGD

Final Process Calculations
Decanter Sizing Per TCEQ Chapter 217.156(b)(8), requiring the decant system to accommodate the design flow with a constant cycle time with the largest tank out of service

Basin Dimensions

<u>Width</u>	25 feet
<u>Length</u>	75 feet
<u>Min SWD</u>	14 feet
<u>Max SWD</u>	24.5 feet

 Condition No. 1: -Basins in service
 -Decant flow of

 9 basins All Basins in Service
 3,889 gpm

% of Design Flow	Flow Rate MGD	No. of Cycles/day	Total Cycle Time minutes	Batch Volume Gallon	Fill React minutes	React minutes	Fill Settle minutes	Settle minutes	Fill Decant minutes	Decant minutes	Fill Idle minutes	Idle minutes	Total Fill minutes	Total React minutes	Total Settle minutes	Total Decant minutes	Volume Decant gal	Decant Depth ft.	Basin water Surface Elevation ft
100%	2.80	5.00	288	62,222	173	0	45	0	16	0	54.2	0	288	173	45	16	62,222	4.4	18.44
150%	4.20	5.00	288	93,333	173	0	45	0	24	0	46.2	0	288	173	45	24	93,333	6.7	20.65
200%	5.60	5.00	288	124,444	173	0	45	0	32	0	38.2	0	288	173	45	32	124,444	8.9	22.87
250%	7.00	6.66	216	116,783	130	0	45	0	30	0	11	0	216	130	45	30	116,783	8.3	22.33
300%	8.40	6.66	216	140,140	130	0	45	0	36	0	5	0	216	130	45	36	140,140	10.0	23.99
350%	9.80	10.00	144	108,889	71	0	45	0	28	0	0	0	144	71	45	28	108,889	7.8	21.76
400%	11.20	10.00	144	124,444	67	0	45	0	32	0	0	0	144	67	45	32	124,444	8.9	22.87

 Condition No. 2: -Basins in service
 -Decant flow of

 8 basins One Basin Out of Service
 3,889 gpm

% of Design Flow	Flow Rate MGD	No. of Cycles/day	Total Cycle Time minutes	Batch Volume Gallon	Fill React minutes	React minutes	Fill Settle minutes	Settle minutes	Fill Decant minutes	Decant minutes	Fill Idle minutes	Idle minutes	Total Fill minutes	Total React minutes	Total Settle minutes	Total Decant minutes	Volume Decant gal	Decant Depth ft.	Basin water Surface Elevation ft
100%	2.80	5.00	288	70,000	144	0	45	0	18	0	81.0	0	288	144	45	18	70,000	5.0	18.99
150%	4.20	5.00	288	105,000	144	0	45	0	27	0	72.0	0	288	144	45	27	105,000	7.5	21.49
200%	5.60	5.00	288	140,000	144	0	45	0	36	0	63.0	0	288	144	45	36	140,000	10.0	23.98
250%	7.00	6.66	216	131,381	108	0	45	0	34	0	29	0	216	108	45	34	131,381	9.4	23.37
300%	8.40	6.66	216	157,658	108	0	45	0	41	0	23	0	216	108	45	41	157,658	11.2	25.24
350%	9.80	10.00	144	122,500	68	0	45	0	32	0	0	0	144	68	45	32	122,500	8.7	22.73
400%	11.20	10.00	144	140,000	63	0	45	0	36	0	0	0	144	63	45	36	140,000	10.0	23.98

Decant Size from Above 3,889 gpm

ATTACHMENT NO. 17

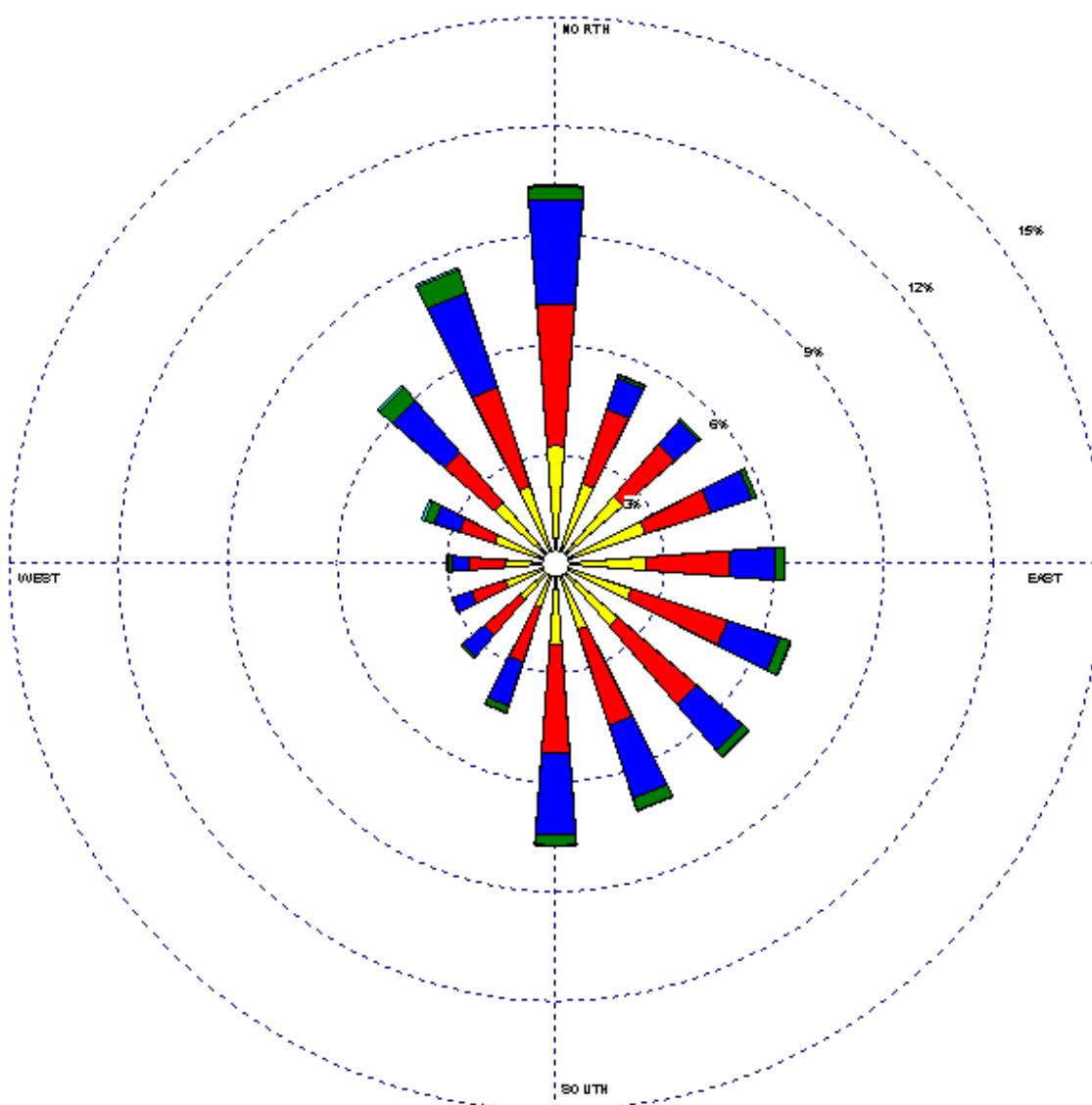
FIRM PANEL


ATTACHMENT NO. 18

WIND ROSE

WIND ROSE PLOT

Station #12960 - HOUSTON/INTERCONTINENTAL ARPT, TX



Wind Speed (m/s) 	MODELER Sara West	DATE 8/29/2002	COMPANY NAME USDA-ARS
	DISPLAY Wind Speed	UNIT m/s	COMMENTS
	AVG. WIND SPEED 4.47 m/s	CALM WINDS 5.38%	
	ORIENTATION Direction (blowing from)	PLOT YEAR-DATETIME 1961 Feb 1 - Feb 29 Midnight - 11 PM	

ATTACHMENT NO. 19

SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN

Technical Report 1.1
Section 7. Sewage Sludge Solids Management Plan

Interim I Phase - Capacity of Digester

Design Flow	0.12 MGD Influent Flow
Minimum Retention Time	40 days
Digester Volume	5,040 ft ³
Digester Dimensions	2 @ 20' length x 12' width x 10.5' SWD
Side Water Depth	10.5 ft.
Digester Sludge Retention Time	40 days

CBOD5 Removal	Influent concentration	350.0 mg/l
	Effluent concentration	10.0 mg/l
	Net removal	340.0 mg/l

Solids Generated	100% Flow	75% Flow	50% Flow	25% Flow
Pounds BOD5/day removed	340	255	170	85
Pounds of dry sludge produced*	116	87	58	29
Pounds of wet sludge produced**	4,628	3,471	2,314	1,157
Volume of wet sludge produced in gals.	556	417	278	139
Volume of wet sludge produced in ft ³	74	56	37	19

*Assuming 0.340 pounds of dry sludge produced per pound of BOD5 removed.

**Assuming 2.5% solids.

MLSS operating range = 3000 mg/l

Settled sludge from the clarifier will be wasted to the digesters. At the digesters, the sludge is further thickened by decanting mechanisms.

Removal Schedule (days)	100% Flow	75% Flow	50% Flow	25% Flow
Days between sludge removal	68	90	136	271

After thickening, the sludge is periodically transported by Magna Flow Environmental (Hauler Registration #21484) to the Mt. Houston Road WWTP Sludge Processing Site (TCEQ Permit No. 0011154001).

Technical Report 1.1
Section 7. Sewage Sludge Solids Management Plan

Interim II Phase - Capacity of Digester

Design Flow	1.05 MGD Influent Flow
Minimum Retention Time	40 days
Digester Volume	15,120 ft ³
Digester Dimensions	2 @ 60' length x 12' width x 10.5' SWD
Side Water Depth	10.5 ft.
Digester Sludge Retention Time	40 days

CBOD5 Removal	Influent concentration	350.0 mg/l
	Effluent concentration	10.0 mg/l
	Net removal	340.0 mg/l

Solids Generated	100% Flow	75% Flow	50% Flow	25% Flow
Pounds BOD5/day removed	2,977	2,233	1,489	744
Pounds of dry sludge produced*	1,012	759	506	253
Pounds of wet sludge produced**	40,492	30,369	20,246	10,123
Volume of wet sludge produced in gals.	4,867	3,650	2,433	1,217
Volume of wet sludge produced in ft ³	651	488	325	163

*Assuming 0.340 pounds of dry sludge produced per pound of BOD5 removed.

**Assuming 2.5% solids.

MLSS operating range = 3,000-5,000 mg/l

Settled sludge from the clarifier will be wasted to the digesters. At the digesters, the sludge is further thickened by decanting mechanisms.

Removal Schedule (days)	100% Flow	75% Flow	50% Flow	25% Flow
Days between sludge removal	23	31	46	93

After thickening, the sludge is periodically transported by Magna Flow Environmental (Hauler Registration #21484) to the Mt. Houston Road WWTP Sludge Processing Site (TCEQ Permit No. 0011154001).

Technical Report 1.1
Section 7. Sewage Sludge Solids Management Plan

Ultimate Phase - Capacity of Digester

Design Flow	2.80 MGD Influent Flow
Minimum Retention Time	40 days
Digester Volume	50,000 ft ³
Digester Dimensions	4 @ 25' length x 40' width x 12.5' SWD
Side Water Depth	12.5 ft.
Digester Sludge Retention Time	40 days

CBOD5 Removal	Influent concentration	350.0 mg/l
	Effluent concentration	10.0 mg/l
	Net removal	340.0 mg/l

Solids Generated	100% Flow	75% Flow	50% Flow	25% Flow
Pounds BOD5/day removed	7,940	5,955	3,970	1,985
Pounds of dry sludge produced*	2,699	2,025	1,350	675
Pounds of wet sludge produced**	107,980	80,985	53,990	26,995
Volume of wet sludge produced in gals.	12,978	9,734	6,489	3,245
Volume of wet sludge produced in ft ³	1,735	1,301	867	434

*Assuming 0.340 pounds of dry sludge produced per pound of BOD5 removed.

**Assuming 2.5% solids.

MLSS operating range = 3,000-5,000 mg/l

Settled sludge from the clarifier will be wasted to the digesters. At the digesters, the sludge is further thickened by decanting mechanisms.

Removal Schedule (days)	100% Flow	75% Flow	50% Flow	25% Flow
Days between sludge removal	29	38	58	115

After thickening, the sludge is periodically transported by Magna Flow Environmental (Hauler Registration #21484) to the Mt. Houston Road WWTP Sludge Processing Site (TCEQ Permit No. 0011154001).

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 to 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: [Click to enter text.](#)

A. Receiving water type

Identify the appropriate description of the receiving waters.

- ☐ Stream
- ☐ Freshwater Swamp or Marsh
- ☒ Lake or Pond

Surface area, in acres: 0.77 ac

Average depth of the entire water body, in feet: 3.3 ft

Average depth of water body within a 500-foot radius of discharge point, in feet: 3.3 ft

- ☐ Man-made Channel or Ditch
- ☐ Open Bay
- ☐ Tidal Stream, Bayou, or Marsh
- ☐ Other, specify: [Click to enter text.](#)

B. Flow characteristics

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

- ☐ Intermittent - dry for at least one week during most years
- ☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses
- ☐ Perennial - normally flowing

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

- ☐ USGS flow records
- ☐ Historical observation by adjacent landowners
- ☐ Personal observation
- ☐ Other, specify: [Click to enter text.](#)

C. Downstream perennial confluences

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

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.

At approximately 1.5 miles downstream of the discharge point, the receiving water characteristics transition from a series of man-made detention basins and channels connected by reinforced concrete box culverts to the natural watershed of the San Jacinto River.

E. Normal dry weather characteristics

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

The detention pond does not yet exist. It will be excavated and connected to a series of existing detention basins before construction of the proposed WWTP and outfall.

Date and time of observation: 2/10/2025, 3:00 pm

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.

- | | |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Oil field activities | <input type="checkbox"/> Urban runoff |
| <input type="checkbox"/> Upstream discharges | <input type="checkbox"/> Agricultural runoff |
| <input type="checkbox"/> Septic tanks | <input checked="" type="checkbox"/> Other(s), specify: <u>immediate receiving water of the proposed discharge site does not yet exist</u> |

B. Waterbody uses

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

- | | |
|------------------------------------------------|----------------------------------------------------------------------------------|
| <input type="checkbox"/> Livestock watering | <input type="checkbox"/> Contact recreation |
| <input type="checkbox"/> Irrigation withdrawal | <input type="checkbox"/> Non-contact recreation |
| <input type="checkbox"/> Fishing | <input type="checkbox"/> Navigation |
| <input type="checkbox"/> Domestic water supply | <input type="checkbox"/> Industrial water supply |
| <input type="checkbox"/> Park activities | <input checked="" type="checkbox"/> Other(s), specify: <u>does not yet exist</u> |

C. Waterbody aesthetics

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION

WORKSHEET 2.1: STREAM PHYSICAL CHARACTERISTICS

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

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

Section 1. General Information (Instructions Page 65)

Date of study: February 10, 2025 Time of study: 3:00 pm

Stream name: N/A

Location: 29.8997, -95.1696

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

☐ Perennial ☐ Intermittent with perennial pools

Section 2. Data Collection (Instructions Page 65)

Number of stream bends that are well defined: N/A

Number of stream bends that are moderately defined: N/A

Number of stream bends that are poorly defined: N/A

Number of riffles: N/A

Evidence of flow fluctuations (check one):

☐ Minor ☐ moderate ☐ severe

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

Detention pond has not yet been cleared or excavated. Excavation will occur prior to construction of the proposed WWTP and outfall.

Stream transects

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

Table 2.1(1) - Stream Transect Records

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

Section 3. Summarize Measurements (Instructions Page 65)

Streambed slope of entire reach, from USGS map in feet/feet: N/A

Approximate drainage area above the most downstream transect (from USGS map or county highway map, in square miles): N/A

Length of stream evaluated, in feet: N/A

Number of lateral transects made: N/A

Average stream width, in feet: N/A

Average stream depth, in feet: N/A

Average stream velocity, in feet/second: N/A

Instantaneous stream flow, in cubic feet/second: N/A

Indicate flow measurement method (type of meter, floating chip timed over a fixed distance, etc.): N/A

Size of pools (large, small, moderate, none): N/A

Maximum pool depth, in feet: N/A

DOMESTIC WASTEWATER PERMIT APPLICATION

WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works.

Section 1. All POTWs (Instructions Page 87)

A. Industrial users (IUs)

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

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

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: N/A

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: N/A

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: N/A

B. Treatment plant interference

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

☐ Yes ☒ No

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

N/A

C. Treatment plant pass through

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

☐ Yes ☒ No

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

N/A

D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

If **yes**, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☒ No

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

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

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 87)

A. Substantial modifications

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

☐ Yes ☒ No

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

N/A

B. Non-substantial modifications

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

☐ Yes ☒ No

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

N/A

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date
N/A				

D. Industrial user interruptions

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

☐ Yes ☒ No

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

N/A

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 88)

A. General information

Company Name: N/A

SIC Code: Click to enter text.

Contact name: Click to enter text.

Address: Click to enter text.

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

Telephone number: Click to enter text.

Email address: Click to enter text.

B. Process information

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

N/A

C. Product and service information

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

N/A

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

Category: Subcategories: N/A

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

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

F. Industrial user interruptions

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

☐ Yes ☒ No

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

N/A