Technical 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. Second notice (NAPD-Notice of Preliminary Decision)
   - English
   - Alternative Language (Spanish)
4. Application materials
5. Draft permit
6. Technical summary or fact sheet

Portada de Paquete Técnico

Este archivo contiene los siguientes documentos:

1. Resumen de la solicitud (en lenguaje sencillo)
   - Inglés
   - Idioma alternativo (español)
2. Primer aviso (NORI, Aviso de Recepción de Solicitud e Intención de Obtener un Permiso)
   - Inglés
   - Idioma alternativo (español)
3. Segundo aviso (NAPD, Aviso de Decisión Preliminar)
   - Inglés
   - Idioma alternativo (español)
4. Materiales de la solicitud
5. Proyecto de permiso
6. Resumen técnico u hoja de datos

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

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

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

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

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

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS
Enter 'INDUSTRIAL' or 'DOMESTIC' here WASTEWATER/STORMWATER
The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Harris County Municipal Utility District No. 387 (CN600738421) operates Harris County Municipal Utility District No. 387 Wastewater Treatment Facility (RN103907028), a domestic wastewater treatment facility. The facility is located at 25810 ½ Gosling Road, in Spring, Harris County, Texas 77389. A major amendment to remove Total Dissolved Solids (TDS) limits and monitoring from the permit.

Discharges from the facility are expected to contain $CBOD_5$, TSS, Ammonia Nitrogen, TDS, Chloride, E. coli, pH, and DO . Domestic wastewater from residential and commercial development is treated by primary treatment using screening, then activated sludge process with aeration basins and clarifiers, followed by disinfection using chlorination.

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

AGUAS RESIDUALES Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

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

Harris County Municipal Utility District No. 387 (CN600738421) opera Harris County Municipal Utility District No. 387 Wastewater Treatment Facility (RN103907028, una planta de tratamiento de aguas residuales domésticas . La instalación está ubicada en 25810 ½ Gosling Road, en Spring, Condado de Harris, Texas 77389. Una enmienda importante para eliminar los límites de sólidos disueltos totales (TDS) y el monitoreo del permiso .

Se espera que las descargas de la instalación contengan CBOD5, TSS, nitrógeno amoniacal, TDS, cloruro, E. coli, pH y DO . Aguas residuales domésticas procedentes de desarrollos residenciales y comerciales . está tratado por Tratamiento primario mediante cribado, posterior proceso de lodos activados con tanques de aireación y clarificadores, seguido de desinfección mediante cloración. .

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0014347001

APPLICATION. Harris County Municipal Utility District No. 387, 1300 Post Oak Boulevard, Suite 1400, Houston, Texas 77056, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014347001 (EPA I.D. No. TX0124907) to authorize the removal of the Total Dissolved Solids limits**.** The domestic wastewater treatment facility is located at 25810 1/2 Gosling Road, near Spring, in Harris County, Texas 77389. The discharge route is from the plant site directly to Spring Creek. TCEQ received this application on June 16, 2025. The permit application will be available for viewing and copying at Lone Star College-Creekside Center, 8747 West New Harmony Trail, The Woodlands, in Harris County, Texas, and at Montgomery County South Regional Library, front desk, 2101 Lake Robbins Drive, The Woodlands, in Montgomery 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=-95.503866,30.137894&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 Harris County Municipal Utility District No. 387 at the address stated above or by calling Mr. Kameron Pugh, P.E., Senior Project Manager, IDS Engineering Group, at 713-462-3178.

Issuance Date: July 1, 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
MODIFICACION

PERMISO NO. WQ0014347001

SOLICITUD. Harris County Municipal Utility District No. 387, 1300 Post Oak Boulevard, Suite 1400, Houston, Texas 77056, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0014347001 (EPA I.D. No. TX 0124907) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar La eliminación de los límites de sólidos disueltos totales. La planta está ubicada 25810 1/2 Gosling Road, near the city of Spring en el Condado de Harris, Texas 77389. La ruta de descarga es del sitio de la planta a Spring Creek. La TCEQ recibió esta solicitud el 16 de junio del 2025. La solicitud para el permiso estará disponible para leerla y copiarla en Lone Star College–Creekside Center, recepción, 8747 West New Harmony Trail, The Woodlands, in Harris County, Texas and at Montgomery County South Regional Library, recepción, 2101 Lake Robbins Drive, The Woodlands, in Montgomery County, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.503866,30.137894&level=18

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

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

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ

realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

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

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

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

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.**

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas

correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado especifico. Si desea que se agrega su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

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

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

También se puede obtener información adicional del Harris County Municipal Utility District No. 387 a la dirección indicada arriba o llamando a Sr. Kameron Pugh, P.E., Senior Project Manager, IDS Engineering Group, al 713-462-3178.

Fecha de emisión: 1 de julio de 2025

Texas Commission on Environmental Quality

COMBINED

NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT (NORI)

AND

NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR TPDES PERMIT FOR MUNICIPAL WASTEWATER

AMENDMENT

PERMIT NO. WQ0014347001

APPLICATION AND PRELIMINARY DECISION. Harris County Municipal Utility District No. 387, 1300 Post Oak Boulevard, Suite 1400, Houston, Texas 77056, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014347001 to authorize the removal of the Total Dissolved Solids limits. TCEQ received this application on June 16, 2025.

This combined notice is being issued to correct the public viewing address for the Lone Star College-Creekside Center that is in Tomball and not The Woodlands.

The facility is located at 25810½ Gosling Road, in Harris County, Texas 77389. The treated effluent is discharged directly to Spring Creek in Segment No. 1008 of the San Jacinto River Basin. The designated uses for Segment No. 1008 are primary contact recreation, public water supply, and high aquatic life use. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.503866,30.137894&level=18

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at Lone Star College-Creekside Center, 8747 West New Harmony Trail, **Tomball**, in Harris County, Texas, and at Montgomery County South Regional Library, front desk, 2101 Lake Robbins Drive, The Woodlands, in Montgomery County, Texas. 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.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices.

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ holds 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 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 a contested case hearing or reconsideration of the Executive Director's decision.** A contested case hearing is a legal proceeding similar to a civil trial in a 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.**

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

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.

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, TX 78711-3087 or electronically at www.tceq.texas.gov/goto/comment **within 30 days from the date of newspaper publication of this notice.**

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. Public comments and requests must be submitted either electronically at www.tceq.texas.gov/goto/comment, 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. Any personal information you submit to the TCEQ will become part of the agency's record; this includes email addresses. 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 Harris County Municipal Utility District No. 387 at the address stated above or by calling Mr. Kameron Pugh, P.E., Senior Project Manager, IDS Engineering Group, at 713-462-3178.

Issuance Date: December 1, 2025

Comisión De Calidad Ambiental Del Estado De Texas

AVISO COMBINADO

**AVISO DE RECIBO DE LA SOLICITUD Y
EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA
MODIFICACION (NORI)**

Y

**AVISO DE LA SOLICITUD Y DECISIÓN PRELIMINAR PARA EL
PERMISO DEL SISTEMA DE ELIMINACION DE DESCARGAS DE CONTAMINANTES DE
TEXAS (TPDES) PARA AGUAS RESIDUALES MUNICIPALES**

MODIFICACIÓN

PERMISO NO. WQ0014347001

SOLICITUD Y DECISIÓN PRELIMINAR. Harris County Municipal Utility District No. 387, 1300 Post Oak Boulevard, Suite 1400, Houston, Texas 77056 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) por una modificación principal (amendment) al Permiso No. WQ0014347001 para autorizar la eliminación de los límites de sólidos disueltos totals. Este permiso no autorizará una descarga de contaminantes a las aguas del estado. La TCEQ recibió esta solicitud el 16 de junio del 2025.

Este aviso combinado tiene como finalidad corregir la ciudad indicada en la dirección proporcionada en el NORI para el lugar donde el público puede revisar y copiar la solicitud, el borrador del permiso y otros documentos de respaldo. Consulte a continuación.

La planta está ubicada en 25810½ Gosling Road en el Condado de Harris, Texas 77389. El efluente tratado es descargado al Spring Creek en el Segmento No. 1008 de la Cuenca del Río San Jacinto. Los usos designados para el Segmento No. 1008 son recreación con contacto; abastecimiento de agua publica uso elevados de vida acuática. 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=-95.503866,30.137894&level=18

De acuerdo con el §307.5 del Título 30 del Código Administrativo de Texas y los *Procedimientos de la TCEQ para Implementar los Estándares de Calidad del Agua Superficial de Texas* (junio de 2010), se realizó una revisión de antidegradación de las aguas receptoras. Una revisión de antidegradación de Nivel 1 ha determinado de manera preliminar que las usos existentes de calidad del agua no se verán afectados por esta acción del permiso. Se mantendrán los criterios numéricos y narrativos para proteger los usos existentes. Una revisión de Nivel 2 ha determinado de manera preliminar que no se espera una degradación significativa de la calidad del agua en Spring Creek, que ha sido identificado como un cuerpo de agua con un alto uso de vida acuática. Los usos existentes se mantendrán y protegerán. La determinación preliminar puede ser reconsiderada y modificada si se recibe nueva información.

El Director Ejecutivo de la TCEQ ha completado la revisión técnica de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, si es aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar que si este permiso es emitido, cumple con todos los requisitos normativos y legales. La solicitud del permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para leer y copiar en Lone Star College-Creekside Center, 8747 West New Harmony Trail, **Tomball**, en el condado de Harris, Texas, and at Montgomery County South Regional Library, front desk, 2101 Lake Robbins Drive, The Woodlands, en el condado de Montgomery, 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.

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

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 de la fecha límite para presentar comentarios públicos, el Director Ejecutivo considerará los comentarios y preparará una respuesta a todos los comentarios públicos relevantes y materiales, o significativos. **A menos que la solicitud sea remitida directamente para una audiencia de caso impugnado, la respuesta a los comentarios se enviará por correo a todos los que enviaron comentarios públicos y a aquellas personas que estén en la lista de correo para esta solicitud. Si se reciben comentarios, el correo también proporcionará instrucciones para solicitar una audiencia de caso impugnado o reconsiderar la decisión del Director Ejecutivo.** Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal.

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.

Tras el cierre de todos los periodos de comentarios y solicitudes aplicables, el Director Ejecutivo remitirá la solicitud y cualquier solicitud de reconsideración o de una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración en 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.**

ACCIÓN DEL DIRECTOR EJECUTIVO. El Director Ejecutivo puede emitir la aprobación final de la solicitud a menos que se presente una solicitud de audiencia de caso impugnado oportunamente o una solicitud de reconsideración. Si se presenta una solicitud de audiencia oportuna o una solicitud de reconsideración, el Director Ejecutivo no emitirá la aprobación final del permiso y enviará la solicitud y la solicitud a los Comisionados de TCEQ para su consideración en una reunión programada de la Comisión.

LISTA DE CORREO. Si envía comentarios públicos, una solicitud de una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo, se le agregará a la lista de correo de esta solicitud específica para recibir futuros avisos públicos enviados por correo por la Oficina del Secretario Oficial. Además, puede solicitar ser colocado en: (1) la lista de correo permanente para un nombre de solicitante específico y número de permiso; y/o (2) la lista de correo para un condado específico. Si desea ser colocado en la lista de correo permanente y / o del condado, especifique claramente qué lista (s) y envíe su solicitud a la Oficina del Secretario Oficial de la TCEQ a la dirección a continuación.

Todos los comentarios públicos escritos y las solicitudes de reunión pública deben enviarse a Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o electrónicamente a www.tceq.texas.gov/goto/comment **dentro de los 30 días a partir de la fecha de publicación de este aviso en el periódico.**

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios y solicitudes públicas deben enviarse electrónicamente a www.tceq.texas.gov/goto/comment, o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Cualquier información personal que envíe a la TCEQ pasará a formar parte del registro de la agencia; esto incluye las direcciones de correo electrónico. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame al Programa de Educación Pública de TCEQ, línea gratuita, al 1-800-687-4040 o visite su sitio web en www.tceq.texas.gov/goto/pep. Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Harris County Municipal Utility District No. 387, a la dirección indicada arriba o llamando a Kameron Pugh, P.E., Senior Project Manager, IDS Engineering Group, al 713-462-3178.

Fecha de emisión 1 de diciembre de 2025

IDS Engineering Group

June 5, 2025

Executive Director
Applications Review and Processing Team (MC-148)
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78735

Reference: Harris County Municipal Utility District No. 387 WWTP Discharge Limitations
TPDES Permit No. WQ0014347001
IDS Project No. 1414-010-02

Dear Sir or Madam:

I am writing on behalf of Harris County Municipal Utility District No. 387 (the District) concerning TPDES Permit No. WQ0014347001, specifically regarding the Total Dissolved Solids (TDS) limitations currently imposed.

The District is seeking to remove the Total Dissolved Solids (TDS) limits from the permit, supported by a recent Harmonic Means Analysis conducted by the Texas Commission on Environmental Quality (TCEQ). We believe the District has consistently met compliance under the updated standards of the daily maximum and daily average TDS, as evidenced by the past five years of Discharge Monitoring Report (DMR) data (attached to this letter).

We appreciate your consideration of this request and are available to provide any additional information or clarification as needed. Please feel free to contact me directly at 713.462.3178 or via email at kpugh@idseg.com.

Sincerely,

Kameron Pugh, P.E.
Senior Project Manager

Enclosure:
- Discharge Monitoring Report (DMR) Data (5 years)

\\IDSEG\FS\PROJECTS\1400\141401003 HCMUD 387 TPDES PERMIT AMENDMENT\PERMIT APPLICATION\COVER LETTER - TPDES PERMIT MAJOR AMENDMENT REQUEST.DOCX

13430 Northwest Freeway, Suite 700, Houston, Texas 77040
TxEng Firm 2726 | TxSurv Firm 10110700
t 713.462.3178
idseg.com

IDS Engineering Group

June 5, 2025

Executive Director
Applications Review and Processing Team (MC-148)
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78735

Reference: Harris County Municipal Utility District No. 387 WWTP
TPDES Permit No. WQ0014347001 – Major Amendment Application
IDS Project No. 1414-010-02

Dear Sir or Madam:

Please find one (1) original and two (2) copies of the TPDES Permit amendment application submitted on behalf of Harris County Municipal Utility District No. 387. An electronic copy of the application has also been submitted via TCEQ's file transfer protocol server (FTP).

One (1) check for the application fee in the amount of $2,015 has been sent to the Texas Commission on Environmental Quality Financial Administration Division (MC-214). A copy of the checks has been included with the attached package.

If you have any questions, do not hesitate to contact me at kpugh@idseg.com or at 832.590.7187.

Sincerely,

Kameron Pugh, P.E.
Senior Project Manager

Enclosures

- TPDES Permit Major Amendment Application

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IDS Engineering Group

13430 Northwest Freeway, Suite 700, Houston, Texas 77040
t 713.462.3178
idseg.com

TCEQ

Domestic Wastewater Permit Application
Major Amendment

Harris County Municipal Utility District No. 387
Permit No. WQ0014347-001

IDS Project No. 1414-010-02

June 2025

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: Harris County MUD No. 387

PERMIT NUMBER (If new, leave blank): WQ0014347-001

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

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

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region_____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

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

Section 1. Application Fees (Instructions Page 26)

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

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

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed Check/Money Order Number: 220694

Check/Money Order Amount: $2,050.00

Name Printed on Check: IDS ENGINEERING GROUP, INC.

EPAY Voucher Number: Click to enter text.

Copy of Payment Voucher enclosed? Yes ☐

Section 2. Type of Application (Instructions Page 26)

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

☒ Publicly Owned Domestic Wastewater

☐ Privately-Owned Domestic Wastewater

☐ Conventional Water Treatment

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

☒ Active ☐ Inactive

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

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

d. Check the box next to the appropriate application type

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

e. For amendments or modifications, describe the proposed changes: Remove TDS limits from the existing permit based on historical data **(see Attachment No. 17)**

f. For existing permits:

Permit Number: WQ00 14347-001

EPA I.D. (TPDES only): TX 0124907

Expiration Date: November 14, 2027

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

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

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

Harris County Municipal Utility District No. 387

(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: 600738421

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: Stephen A. Mills

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?

Click to enter text.

(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the

legal documents forming the entity.)

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

CN: Click to enter text.

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

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

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

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

C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0. Attachment No. 1

Section 4. Application Contact Information (Instructions Page 27)

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

A. Prefix: Mr. Last Name, First Name: Pugh, Kameron

Title: Senior Project Manager Credential: P.E.

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Freeway, Ste 700 City, State, Zip Code: Houston, Texas, 77040

Phone No.: 713-462-3178 E-mail Address: KPugh@idseg.com

Check one or both: ☒ Administrative Contact ☒ Technical Contact

B. Prefix: Mr. Last Name, First Name: Abram, Chad

Title: District Engineer Credential: P.E.

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Freeway, Ste 700 City, State, Zip Code: Click to enter text.

Phone No.: 713-462-3178 E-mail Address: CAbram@idseg.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: Pugh, Kameron

Title: Senior Project Manager Credential: P.E.

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Freeway, Ste 700 City, State, Zip Code: Houston, Texas, 77040

Phone No.: 713-462-3178 E-mail Address: KPugh@idseg.com

B. Prefix: Mr. Last Name, First Name: Abram, Chad

Title: District Engineer Credential: P.E.

Organization Name: IDS Engineering Group

Mailing Address: 13430 Northwest Freeway, Ste 700 City, State, Zip Code: Houston, Texas, 77040

Phone No.: 713-462-3178 E-mail Address: CAbram@idseg.com

Section 6. Billing Contact Information (Instructions Page 27)

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

Prefix: Mr. Last Name, First Name: Smith, Trevor

Title: Bookkeeper Credential: Click to enter text.

Organization Name: Municipal Accounts & Consulting, LP

Mailing Address: 611 Longmire Rd Suite 1 City, State, Zip Code: Conroe, TX, 77304

Phone No.: 936-756-1644 E-mail Address: tsmith@ 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: Young, Susan

Title: Operator Credential: Click to enter text.

Organization Name: Municipal District Services, LLC

Mailing Address: 406 W Grand Parkway S Suite 260 City, State, Zip Code: Katy, TX, 77494

Phone No.: 281-290-3102 E-mail Address: syoung@mdswater.com

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Mr. Last Name, First Name: Kameron Pugh

Title: Senior Project Manager Credential: Click to enter text.

Organization Name: IDS Engineering Group

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

Phone No.: 713-462-3178 E-mail Address: KPugh@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: Kameron Pugh

Title: Senior Project Manager Credential: Click to enter text.

Organization Name: IDS Engineering Group

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

Phone No.: 713-462-3178 E-mail Address: KPugh@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: Montgomery County South Regional Library

Location within the building: Front Desk

Physical Address of Building: 2101 Lake Robbins Drive

City: The Woodlands County: Montgomery

Contact (Last Name, First Name): Sosa, Steve

Phone No.: 936-522-2699 Ext.: Click to enter text.

E. Bilingual Notice Requirements

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

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

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

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

   ☒ Yes ☐ No

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

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

   ☒ Yes ☐ No

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

   ☒ Yes ☐ No

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

   ☐ Yes ☒ No

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

F. Summary of Application in Plain Language Template

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

Attachment: Attachment No. 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 No. 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** 101404309

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):

Harris County MUD No. 387 Wastewater Treatment Facility

C. Owner of treatment facility: Harris County MUD No. 387

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: Harris County MUD No. 387

Mailing Address: 1300 Post Oak Blvd., Suite 1400 City, State, Zip Code: Houston, TX, 77056

Phone No.: 713-462-3178 E-mail Address: cabram@idseg.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: Click to enter text.

E. Owner of effluent disposal site:

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

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

Organization Name: Click to enter text.

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

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

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

Attachment: Click to enter text.

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

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

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

Organization Name: Click to enter text.

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

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

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

Attachment: Click to enter text.

Section 10. TPDES Discharge Information (Instructions Page 31)

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

☒ Yes ☐ No

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

Click to enter text.

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

☒ Yes ☐ No

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

Click to enter text.

City nearest the outfall(s): Spring, TX

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: Attachment No. 4

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

Section 11. TLAP Disposal Information (Instructions Page 32)

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

☐ Yes ☐ No

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

N/A

B. City nearest the disposal site: Click to enter text.

C. County in which the disposal site is located: Click to enter text.

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

Click to enter text.

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

Section 12. Miscellaneous Information (Instructions Page 32)

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

☐ Yes ☒ No

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

☐ Yes ☐ No ☒ Not Applicable

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

Click to enter text.

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

☒ Yes ☐ No

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

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: Click to enter text.

Amount past due: Click to enter text.

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

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

Enforcement order number: Click to enter text.

Amount past due: Click to enter text.

Section 13. Attachments (Instructions Page 33)

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

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

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

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

☐ Attachment 1 for Individuals as co-applicants

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

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: Click to enter text. WQ0014347001

Applicant: Click to enter text. Harris County Municipal Utility District No. 387

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): Stephen A. Mills

Signatory title: Board President

Signature: _____ Date: 05/28/2025

(Use blue ink)

Subscribed and Sworn to before me by the said Stephen A. Mills

on this 28th day of May, 20 25.

My commission expires on the 15th day of July, 20 25.

D. Gillama

Notary Public

DEZARIE A. GILLAMAC
Notary Public, State of Texas
Commission Expires 07-15-2027
Notary ID 13208663-2

[SEAL]

Harris

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

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

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

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

C. ☒ Indicate by a check mark that the landowners list has also been provided as mailing labels in electronic format (Avery 5160).

D. Provide the source of the landowners' names and mailing addresses: Harris County Appraisal District and Montgomery Central 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**.** **N/A**

☐ 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. **See Attachment No. 8**

- 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: Attachment No. 9

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

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

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

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

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

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

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

Things to Know:

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

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

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

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

Summary of Application (in Plain Language) ☒ Yes

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

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

A. Existing/Interim I Phase

Design Flow (MGD): 1.5

2-Hr Peak Flow (MGD): 6.0

Estimated construction start date: March 2013

Estimated waste disposal start date: September 2013

B. Interim II Phase

Design Flow (MGD): 1.8

2-Hr Peak Flow (MGD): 7.2

Estimated construction start date: January 2018

Estimated waste disposal start date: July 2020

C. Final Phase

Design Flow (MGD): 3.0

2-Hr Peak Flow (MGD): 12.0

Estimated construction start date: January 2026

Estimated waste disposal start date: December 2026

D. Current Operating Phase: Interim II Phase

Provide the startup date of the facility: August 2020

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. 11

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. 12		

C. Process Flow Diagram

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

Attachment: Attachment No. 13

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

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

- Latitude: 30.139414
- Longitude: -95.499230

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

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

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

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

Attachment: Attachment No. 14

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

The Woodlands Village of Creekside Park. A development primarily for single-family residential, retail, and commercial uses

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
Harris County MUD 387 Collection System	Harris County MUD 387	**Publicly Owned**	0
Harris-Montgomery County MUD 386 Collection System	Harris-Montgomery County MUD 386	**Publicly Owned**	40,000
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

N/A

Section 5. Closure Plans (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

N/A

Section 6. Permit Specific Requirements (Instructions Page 44)

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

A. Summary transmittal

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

☒ Yes ☐ No

If yes, provide the date(s) of approval for each phase: Interim I Phase (6/11/2012). Interim II Phase (11/01/2017)

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*.

Quarterly progress reports for WET testing

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

☐ Yes ☒ No

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

2. Grit and grease processing

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

Click to enter text.

3. Grit disposal

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

☐ Yes ☐ No

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

Describe the method of grit disposal.

Click to enter text.

4. *Grease and decanted liquid disposal*

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

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

Click to enter text.

E. Stormwater management

1. *Applicability*

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

☒ Yes ☐ No

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

☐ Yes ☒ No

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

2. *MSGP coverage*

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

☒ Yes ☐ No

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

TXR05 CT54 or TXRNE Click to enter text.

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

☐ Yes ☐ No

3. *Conditional exclusion*

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

☐ Yes ☐ No

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

Click to enter text.

4. Existing coverage in individual permit

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

☐ Yes ☐ No

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

Click to enter text.

5. Zero stormwater discharge

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

☐ Yes ☒ No

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

Click to enter text.

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

6. Request for coverage in individual permit

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

☐ Yes ☐ No

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

intend to divert stormwater to the treatment plant headworks and indirectly discharge it to water in the state.

Click to enter text.

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

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☒ Yes ☐ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions. Attachment No. 15

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

1. Acceptance of sludge from other WWTPs

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

☐ Yes ☒ No

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

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

Click to enter text.

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

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

Click to enter text.

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

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

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

☐ Yes ☒ No

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

Click to enter text.

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

Is the facility in operation?

☒ Yes ☐

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

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

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

Table1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities (See DMR data attached for TDS Limit Removal Request Letter – Major Amendment)

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

*TPDES permits only
†TLAP permits only

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

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

Section 8. Facility Operator (Instructions Page 49)

Facility Operator Name: Municipal District Services, LLC

Facility Operator's License Classification and Level: A

Facility Operator's License Number: OC0000129

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

A. WWTP's Sewage Sludge or Biosolids Management Facility Type

Check all that apply. See instructions for guidance

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

B. WWTP's Sewage Sludge or Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☒ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)
- ☐ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- ☐ Sludge Lagoon
- ☐ Temporary Storage (< 2 years)
- ☐ Long Term Storage (>= 2 years)
- ☐ Methane or Biogas Recovery
- ☐ Other Treatment Process: 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
Other	Off-site Third-Party Handler or Preparer	Not Applicable		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

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

D. Disposal site

Disposal site name:

TCEQ permit or registration number: N/A

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

E. Transportation method

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

Name of the hauler: 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	☐ Yes	☒ No
Marketing and Distribution of Biosolids	☐ Yes	☒ No
Sludge Surface Disposal or Sludge Monofill	☐ Yes	☒ No
Temporary storage in sludge lagoons	☐ Yes	☒ No

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

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

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

A. Location information

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

- Original General Highway (County) Map:

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

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

  Attachment: Click to enter text.
- Site map:

  Attachment: Click to enter text.

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

☐ Overlap a designated 100-year frequency flood plain

☐ Soils with flooding classification

☐ Overlap an unstable area

☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

Attachment: Click to enter text.

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

Click to enter text.

B. Temporary storage information

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

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

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

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

Phosphorus, mg/kg: Click to enter text.

Potassium, mg/kg: Click to enter text.

pH, standard units: Click to enter text.

Ammonia Nitrogen mg/kg: Click to enter text.

Arsenic: Click to enter text.

Cadmium: Click to enter text.

Chromium: Click to enter text.

Copper: Click to enter text.

Lead: Click to enter text.

Mercury: Click to enter text.

Molybdenum: Click to enter text.

Nickel: Click to enter text.

Selenium: Click to enter text.

Zinc: Click to enter text.

Total PCBs: Click to enter text.

Provide the following information:

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

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

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

C. Liner information

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

☐ Yes ☐ No

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

Click to enter text.

D. Site development plan

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

Click to enter text.

Attach the following documents to the application.

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

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

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

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

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

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

  Attachment: Click to enter text.

E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: Click to enter text.

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

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

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

Section 1. Justification for Permit (Instructions Page 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.

N/A. No additional phases are being requested.

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: N/A

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

Attachment: N/A

2. *Utility CCN areas*

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

☐ Yes ☒ No

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

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

Attachment: N/A

3. Nearby WWTPs or collection systems

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

☐ Yes ☒ No

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

Attachment: N/A

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

Attachment: N/A

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

Attachment: N/A

Section 2. Proposed Organic Loading (Instructions Page 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): 1.5 MGD, 1.8 MGD, 3.0 MGD

Average Influent Organic Strength or BOD_5 Concentration in mg/l: 225.9, 240.6, 249.0

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): 2826.3, 4414.2, 6229.0

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

Commercial and residential use

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	N/A	
Subdivision		
Trailer park – transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park, overnight use		
Recreational park, day use		
Office building or factory		
Motel		
Restaurant		
Hospital		
Nursing home		
Other		
TOTAL FLOW from all sources		
AVERAGE BOD_5 from all sources		

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

A. Existing/Interim I Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 3

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4

Other: E. Coli 63 /100 ml

B. Interim II Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 3

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4

Other: E. Coli 63 /100 ml

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 3

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4

Other: E. Coli 63 /100 ml

D. Disinfection Method

Identify the proposed method of disinfection.

☒ Chlorine: 1 mg/l after 20 minutes detention time at peak flow

Dechlorination process: 0.2 mg/l

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

☐ Other: Click to enter text.

Section 4. Design Calculations (Instructions Page 58)

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

Attachment: N/A – Existing facility/permit

Section 5. Facility Site (Instructions Page 59)

A. 100-year floodplain

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

☐ Yes ☐ No

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

N/A – Existing facility/permit

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

Click to enter text.

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

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

B. Wind rose

Attach a wind rose: N/A

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: N/A

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

- Treatment units and processes dimensions and capacities
- Solids generated at 100, 75, 50, and 25 percent of design flow
- Mixed liquor suspended solids operating range at design and projected actual flow

- Quantity of solids to be removed and a schedule for solids removal
- Identification and ownership of the ultimate sludge disposal site
- For facultative lagoons, design life calculations, monitoring well locations and depths, and the ultimate disposal method for the sludge from the facultative lagoon

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

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

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

☐ Yes ☒ No

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

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

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

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

Attachment: Click to enter text.

Section 2. Discharge into Tidally Affected Waters (Instructions Page 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: Click to enter text.

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).

Click to enter text.

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).

Click to enter text.

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: Click to enter text.

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

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

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click to enter text.

B. Flow characteristics

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

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

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

☐ Perennial - normally flowing

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

☐ USGS flow records

☐ Historical observation by adjacent landowners

☐ Personal observation

☐ Other, specify: Click to enter text.

C. Downstream perennial confluences

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

Click to enter text.

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.

Click to enter text.

E. Normal dry weather characteristics

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

Click to enter text.

Date and time of observation: Click to enter text.

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☐ No

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

A. Upstream influences

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

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

B. Waterbody uses

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

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

C. Waterbody aesthetics

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 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: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

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.

Click to enter text.

B. Non-substantial modifications

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

☐ Yes ☐ No

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

Click to enter text.

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

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

☐ Yes ☐ No

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

Click to enter text.

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 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: Click to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

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

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

Category: Subcategories: Click to enter text.

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

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

F. Industrial user interruptions

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

☐ Yes ☐ No

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

N/A

Attachments

Attachment No.	Description
1.	Core Data Form (Admin. Report 1.0, Section 3.C)
2.	PLS – TCEQ Form 20972 (Admin. Report 1.0, Section 8.F)
3.	Public Involvement Plan Form – TCEQ Form 20960 (Admin. Report 1.0, Section 8.G)
4.	Authorization to Discharge into HCFCD (Admin. Report 1.0, Section 10.C)
5.	USGS 7.5' Quadrangle Map (Admin. Report 1.0, Section 13)
6.	Affected Landowners Map (Admin. Report 1.1, Section 1)
7.	Payment Submittal Form Copy (Admin. Report 1.0, Section 1)
8.	Buffer Zone Map (Admin. Report 1.1, Section 3)
9.	Supplemental Permit information Form (SPIF)
10.	USGS 7.5' Quadrangle Map (SPIF, 5)
11.	Description of Treatment Process (Tech. Report 1.0, Section 2.A)
12.	Treatment Units (Tech. Report 1.0, Section 2.B)
13.	Flow Diagrams (Tech. Report 1.0, Section 2.C)
14.	Site Drawing (Tech. Report 1.0, Section 3)
15.	Sewage Sludge Solids Management Plan (Tech. Report 1.0, Section 6.F)
16.	Written Statement / Contractual Agreement with Permitted Sludge Processing Facility (Tech. Report. 1.0, Section 9.A.)
17.	Proposed Amendment Description (Admin Report 1.0, Section 2.e)

Attachment No. 1:

Core Data Form
(Admin. Report 1.0, Section 3.C)

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

☒ Other **Major Amendment**

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 600738421		**RN 103907028**

SECTION II: Customer Information

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

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

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

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

Harris County Municipal Utility District No. 387

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
		20-1877286	

11. Type of Customer:

☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☒ Other ☐ Sole Proprietorship ☒ Other: Municipal Utility District

12. Number of Employees

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

13. Independently Owned and Operated?

☐ **Yes** ☒ **No**

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

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

15. Mailing Address:	1300 Post Oak Boulevard, Suite 1400						
	City	Houston	**State**	TX	**ZIP**	77056	**ZIP + 4**	3087

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	mgpage@sphllp.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(713) 462-3178		( ) -

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.)*

Harris County Municipal Utility Distrcit No. 387 Wastewater Treatment Plant

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	25810 1/2 Gosling Road							
	City	Spring	**State**	TX	**ZIP**	77389	**ZIP + 4**	
24. County	Harris							

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

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

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

27. Latitude (N) In Decimal:			**28. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

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

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

Wastewater Treatment

34. Mailing Address:	**1300 Post Oak Boulevard, Suite 1400**							
	City	**Houston**	**State**	**TX**	**ZIP**	**77056**	**ZIP + 4**	**3087**
35. E-Mail Address:	**mgpage@sphllp.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(713) 623-4531		( ) -

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

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

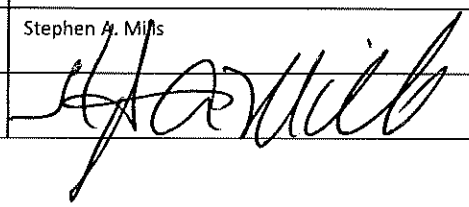
SECTION IV: Preparer Information

40. Name:	Kameron Pugh	41. Title:	Senior Project Manager

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(713) 623-4531		( ) -	kpugh@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:	Harris County Municipal Utility District No. 387	Job Title:	Board President	
Name *(In Print)*:	Stephen A. Mills		Phone:	(713) 623- 4531
Signature:			Date:	

Attachment No. 2:

PLS – TCEQ Form 20972
(Admin. Report 1.0, Section 8.F)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

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

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

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

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

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS
Enter 'INDUSTRIAL' or 'DOMESTIC' here WASTEWATER/STORMWATER
The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Harris County Municipal Utility District No. 387 (CN600738421) operates Harris County Municipal Utility District No. 387 Wastewater Treatment Facility (RN103907028), a domestic wastewater treatment facility. The facility is located at 25810 ½ Gosling Road, in Spring, Harris County, Texas 77389. A major amendment to remove Total Dissolved Solids (TDS) limits and monitoring from the permit.

Discharges from the facility are expected to contain $CBOD_5$, TSS, Ammonia Nitrogen, TDS, Chloride, E. coli, pH, and DO . Domestic wastewater from residential and commercial development is treated by primary treatment using screening, then activated sludge process with aeration basins and clarifiers, followed by disinfection using chlorination.

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

AGUAS RESIDUALES Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

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

Harris County Municipal Utility District No. 387 (CN600738421) opera Harris County Municipal Utility District No. 387 Wastewater Treatment Facility (RN103907028, una planta de tratamiento de aguas residuales domésticas . La instalación está ubicada en 25810 ½ Gosling Road, en Spring, Condado de Harris, Texas 77389. Una enmienda importante para eliminar los límites de sólidos disueltos totales (TDS) y el monitoreo del permiso .

Se espera que las descargas de la instalación contengan CBOD5, TSS, nitrógeno amoniacal, TDS, cloruro, E. coli, pH y DO . Aguas residuales domésticas procedentes de desarrollos residenciales y comerciales . está tratado por Tratamiento primario mediante cribado, posterior proceso de lodos activados con tanques de aireación y clarificadores, seguido de desinfección mediante cloración. .

Attachment No. 3:

Public Involvement Plan Form – TCEQ Form 20960
(Admin. Report 1.0, Section 8.G)

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.

This modification is not expected to impact public health or the environment.

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.

This amendment seeks to remove the Total Dissolved Solids (TDS) limits from the permit, supported by a recent Harmonic Means Analysis conducted by the TCEQ. The facility has consistently met compliance standards, as evidenced by the past five years of Discharge Monitoring Report (DMR) data. Therefore, this modification is not expected to impact public health or the environment.

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.

Spring

(City)

Harris

(County)

5553.01

(Census Tract)

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

☐ City ☒ County ☐ Census Tract

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

82.5%

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

$39,978

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

White alone 67.8%
Black alone 21.1%
American Indian and Alaska Native alone 1.2%

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

44.7%

(e) Languages commonly spoken in area by percentage

English and Spanish

(f) Community and/or Stakeholder Groups

Harris County Communities Meeting

(g) Historic public interest or involvement

historically strong

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) Montgomery County South Regional Library

Section 7. Voluntary Submittal

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

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

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

Attachment No. 4:

Authorization to Discharge into HCFCD
(Admin. Report 1.0, Section 10.C)

Harris County
Flood Control District

9900 Northwest Freeway
Houston, Texas 77092
713-684-4000
www.hcfcd.org

May 25, 2012

Ms. Christine Winter, E.I.T.
Pate Engineers
13333 Northwest Freeway, Suite 300
Houston, TX 77040

RE: Wastewater Discharge from H.C.M.U.D. No. 387
Discharge of 3.0 MGD
TCEQ Discharge Permit # WQ0014347001
HCFCD Unit J100-00-00

Dear Ms. Winter:

The Harris County Flood Control District (HCFCD) has received your application for discharge into a Flood Control or County facility. Harris County's waterways are impaired for bacteria (E. coli), therefore HCFCD requests that discharges from H.C.M.U.D. No. 387 be monitored for bacteria (E. coli) with the other required parameters. Also, HCFCD requests a copy of the Draft Permit effluent limits to be forward when received from TCEQ. Your application is being processed and we have no objection at this time to a maximum daily average of 3.0 MGD discharge of treated wastewater into or toward HCFCD Unit J100-00-00, as long as monitoring reports for bacteria (E. coli) and Draft Permit effluent limits are submitted to HCFCD.

Please note that construction plans designed in accordance with Harris County Flood Control District's criteria and other adopted policies must be submitted for review to the Watershed Department.

If you should have any questions or need additonal information, please contact our Stormwater Quality Department at 713-684-4177.

Sincerely,

Catherine A. Elliott

Catherine A. Elliott
Stormwater Quality Department Manager

CAE:ag

Attachment: Copy of Letter

cc: Mark Sherley
Rondy Spardella
TPDES

S:\Environmental\Master Documents (Forms)\NPDES FORMS\12-L5-25pateengrs HCMUD 387 J100-00-00 WWTP Approval Letter.doc

PATE ENGINEERS

Certified Mail # 2011 0470 0000 6935 9712

May 21, 2012

Ms. Catherine Elliott
Harris County Flood Control District
9900 Northwest Freeway
Houston, TX 77092

MAY 25 2012

Reference: Authorization for Discharge of Treated Effluent
Harris County MUD No. 387 WWTP
PATE Job No. 1414-002-00

Dear Ms. Elliott:

Pate Engineers, Inc. is in the process of preparing a wastewater discharge permit application to serve the proposed Harris County Municipal Utility District (MUD) No. 387 Wastewater Treatment Plant, on behalf of Harris County MUD No. 387. The plant will discharge treated domestic municipal wastewater effluent into Spring Creek, Segment No. 1008. Harris County Municipal Utility District No. 387 is making an application to the Texas Commission on Environmental Quality (TCEQ) to discharge in four separate phases: average daily flows of 0.96 MGD, 1.5 MGD, 2.2 MGD and 3.0 MGD for existing phase one, interim phase one, phase two, and final phase respectively. The TCEQ requires proof of authorization to discharge as part of the application process.

Therefore, on behalf of Harris County MUD No. 387, we hereby request in writing, approval to discharge treated domestic wastewater effluent into Spring Creek, Segment No. 1008. Also please find a completed Application for Discharge in a Flood Control or County Facility.

If you have any questions concerning this request, please do not hesitate to contact me via email at cwinter@pateeng.com.

Very truly yours,

PATE ENGINEERS, INC.

Christine Winter

Christine Winter, E.I.T.
Design Engineer

Enclosures

Cc: Mr. Chad Abram, P.E. – Pate Engineers, Inc.

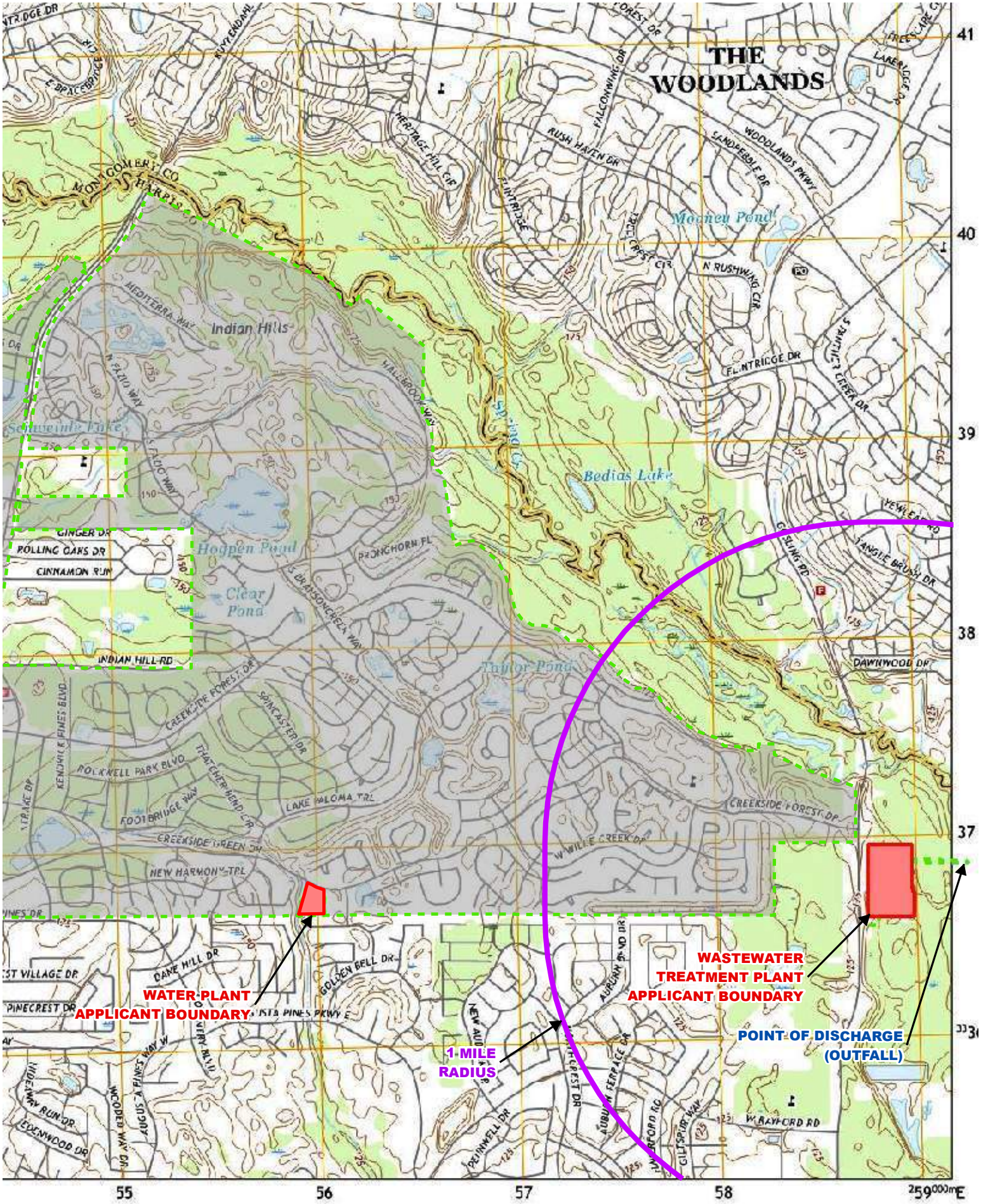
J100-00-00

FCDOCID: PI4352

J:\1400\141400200 TPDES Amendment\300 ENG REPTS\80 Permit\Correspondence\05182012 HCFCD Request for Approval.doc

Attachment No. 5:

USGS 7.5’ Quadrangle Map
(Admin. Report 1.0, Section 13)



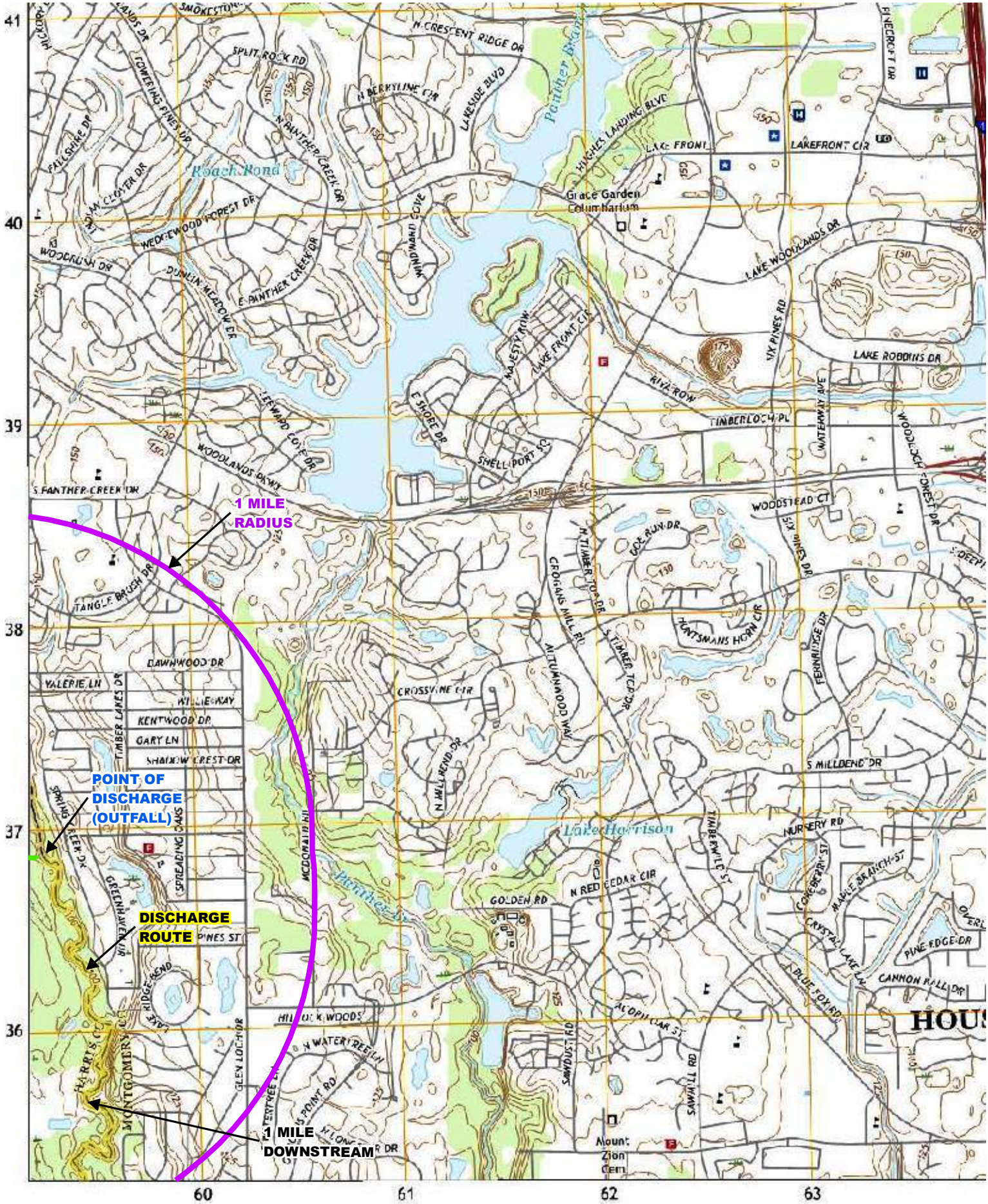
IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

N

0 1,000 2,000 4,000 Feet

1 inch = 2,000 feet

H.C.M.U.D. NO. 387 WWTP
USGS 7.5' QUADRANGLE MAP
ATTACHMENT NO. 5



IDS Engineering Group

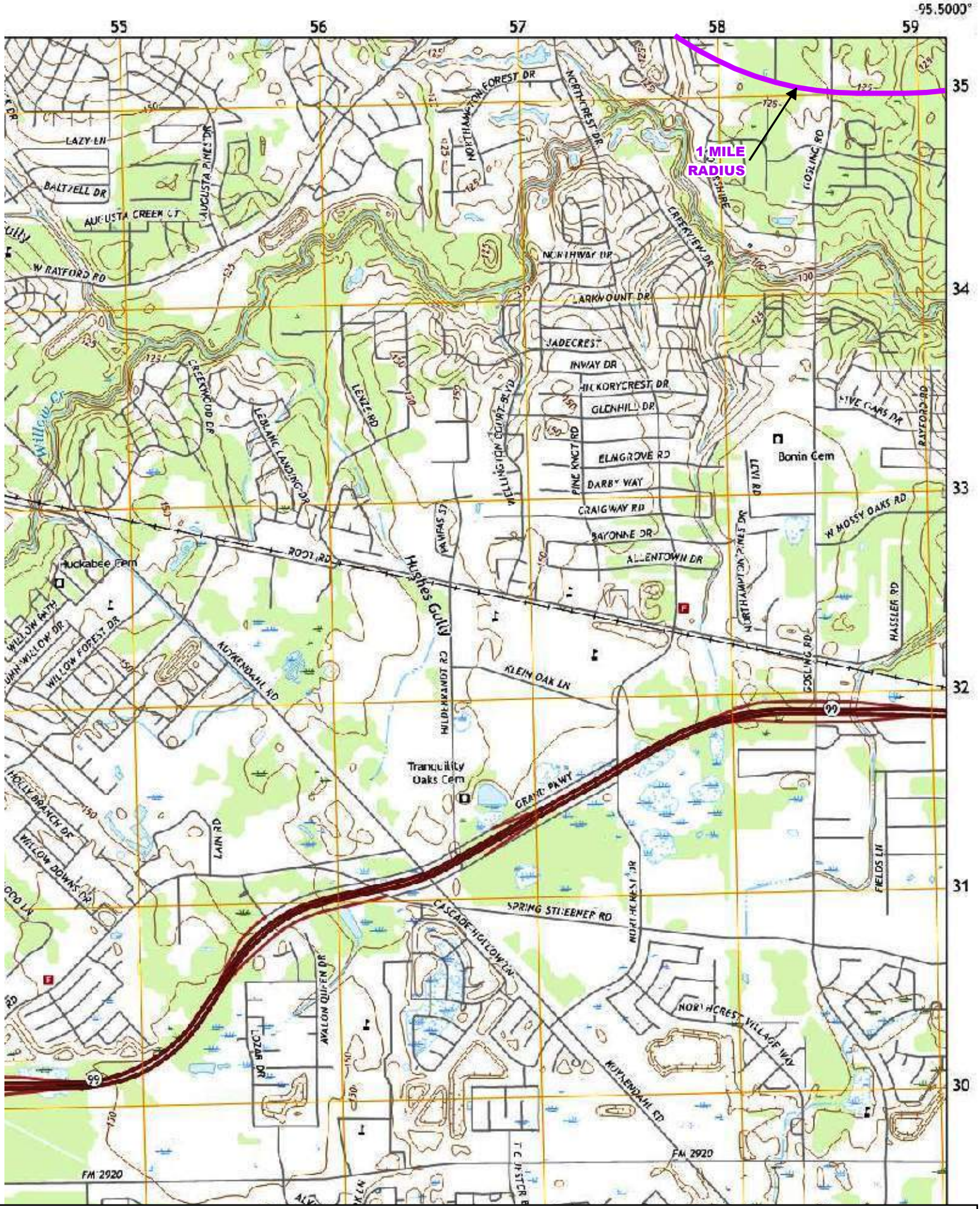
13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

N

0 1,000 2,000 4,000 Feet

1 inch = 2,000 feet

H.C.M.U.D. NO. 387 WWTP
USGS 7.5' QUADRANGLE MAP
ATTACHMENT NO. 5



IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

N

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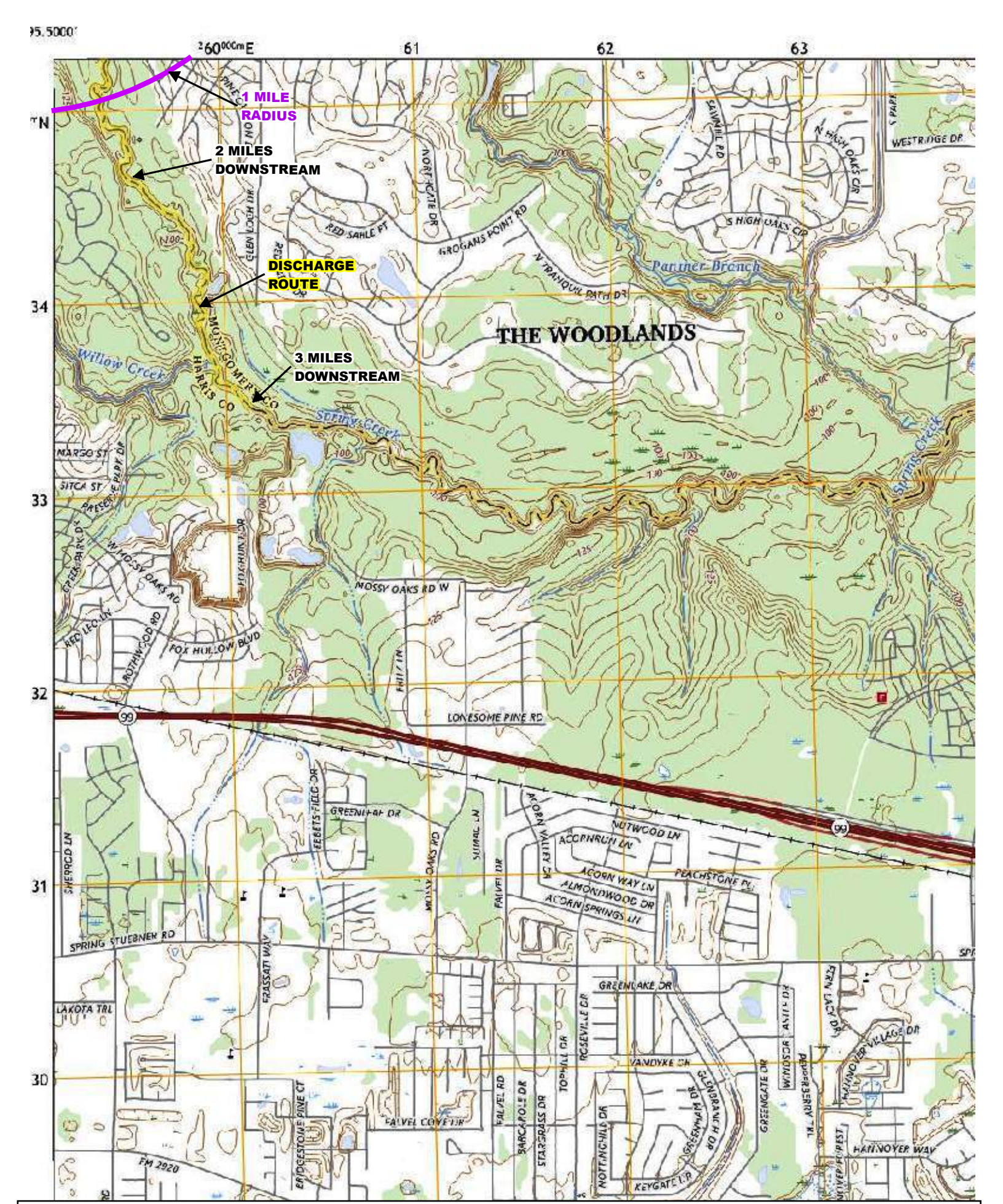
1 inch = 2,000 feet

H.C.M.U.D. NO. 387 WWTP
USGS 7.5' QUADRANGLE MAP
ATTACHMENT NO. 5



IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

N

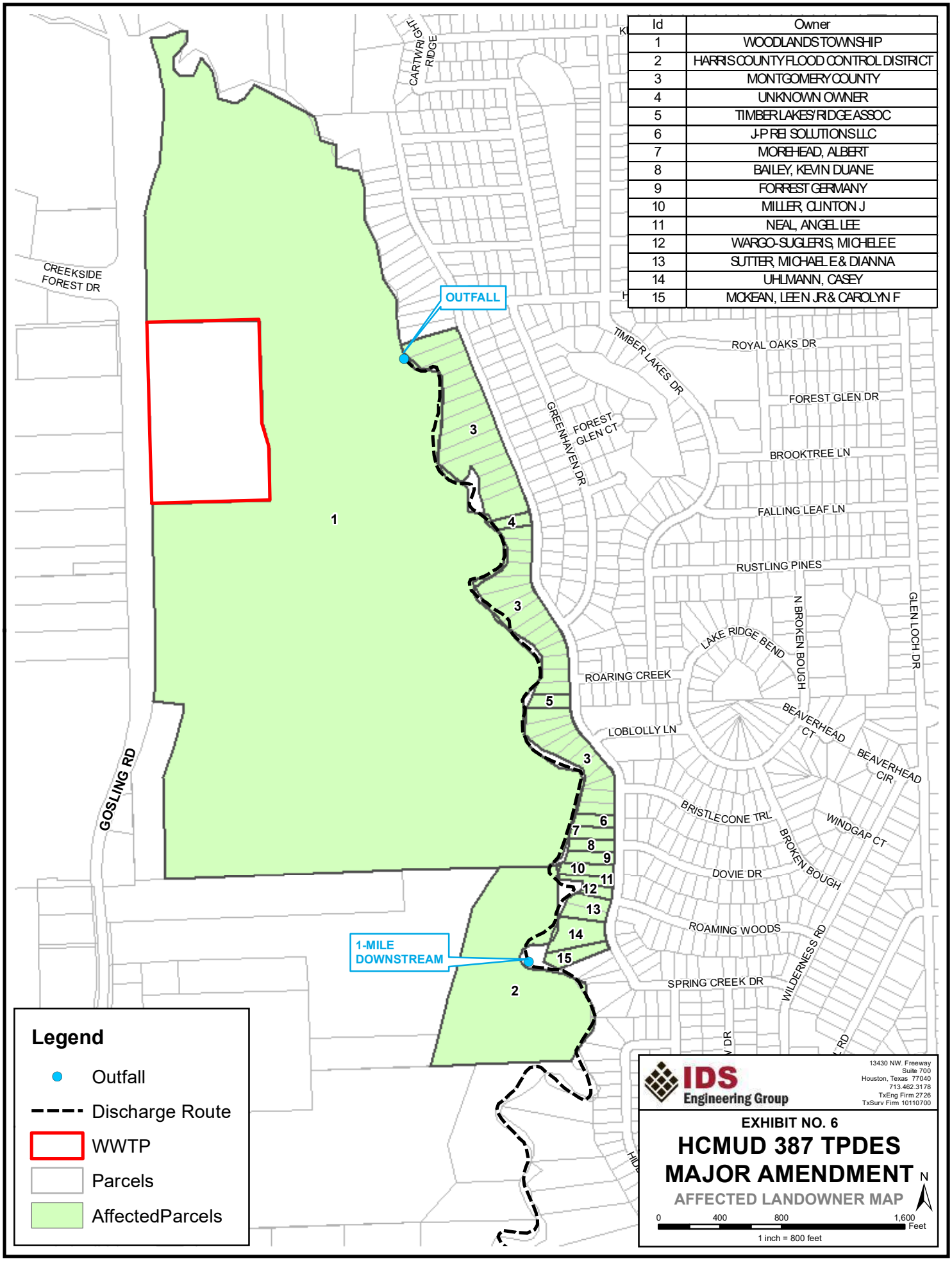
0 1,000 2,000 4,000 Feet

1 inch = 2,000 feet

H.C.M.U.D. NO. 387 WWTP
USGS 7.5' QUADRANGLE MAP
ATTACHMENT NO. 5

Attachment No. 6:

Affected Landowners Map
(Admin. Report 1.1, Section 1)



Id	Owner
1	WOODLANDS TOWNSHIP
2	HARRIS COUNTY FLOOD CONTROL DISTRICT
3	MONTGOMERY COUNTY
4	UNKNOWN OWNER
5	TIMBER LAKES/RIDGE ASSOC
6	J-P REI SOLUTIONS LLC
7	MOREHEAD, ALBERT
8	BAILEY, KEVIN DUANE
9	FORREST GERMANY
10	MILLER, CLINTON J
11	NEAL, ANGEL LEE
12	WARGO-SUGLERIS, MICHELE E
13	SUTTER, MICHAEL E & DIANNA
14	UHLMANN, CASEY
15	MCKEAN, LEE N JR & CAROLYN F

Legend

- Outfall
- Discharge Route
- WWTP
- Parcels
- AffectedParcels

IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

EXHIBIT NO. 6

HCMUD 387 TPDES MAJOR AMENDMENT

AFFECTED LANDOWNER MAP

N

0 400 800 1,600 Feet

1 inch = 800 feet

Id	Owner	MAddress	City	State	Zip
1	WOODLANDS TOWNSHIP	WATERWAY PLAZA TWO	SPRING	TX	77389
2	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY	SPRING	TX	77389
3	MONTGOMERY COUNTY	400 N SAN JACINTO ST	CONROE	TX	77301-2823
4	UNKNOWN OWNER	UNKNOWN UNKNOWN			77301
5	TIMBER LAKES/RIDGE ASSOC	25610 TIMBER LAKES DR	SPRING	TX	77380-1653
6	J-P REI SOLUTIONS LLC	15201 MASON RD STE 1000-303	CYPRESS	TX	77433-5932
7	MOREHEAD, ALBERT	1511 AVENUE C	DENTON	TX	76205-694
8	BAILEY, KEVIN DUANE	25019 SPRING CREEK DR	SPRING	TX	77380-2441
9	FORREST GERMANY	PO BOX 130759	SPRING	TX	77393-0759
10	MILLER, CLINTON J	25011 SPRING CREEK DR	SPRING	TX	77380-2441
11	NEAL, ANGEL LEE	25007 SPRING CREEK DR	SPRING	TX	77380-2441
12	WARGO-SUGLERIS, MICHELE E	5927 SANIT LAURENT DR	AGOURA HILLS	CA	91301-4634
13	SUTTER, MICHAEL E & DIANNA	24935 SPRING CREEK DR	SPRING	TX	77380-2439
14	UHLMANN, CASEY	24923 SPRING CREEK DR	SPRING	TX	77380-2439
15	MCKEAN, LEE N JR & CAROLYN F	PO BOX 130250	THE WOODLANDS	TX	77393-0250

Attachment No. 7:

Payment Submittal Form Copy
(Admin. Report 1.0, Section 1)

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

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

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

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

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

BY OVERNIGHT/EXPRESS MAIL

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

Fee Code: WQP **Waste Permit No:** WQ0014347-001

1. Check or Money Order Number: 220694
2. Check or Money Order Amount: $2,050.00
3. Date of Check or Money Order: 6/5/2025
4. Name on Check or Money Order: IDS ENGINEERING GROUP, INC.
5. APPLICATION INFORMATION

   Name of Project or Site: Harris County MUD No. 387 Wastewater Treatment Plant

   Physical Address of Project or Site: 25810 1/2 Gosling Road, Spring, TX 77389

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

Staple Check or Money Order in This Space

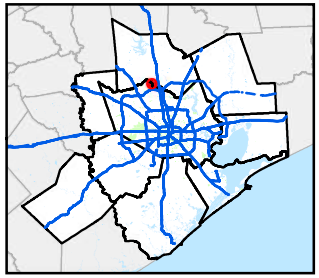
Attachment No. 8:

Buffer Zone Map
(Admin. Report 1.1, Section 3)

IDS Engineering Group

Legend

- IDS MUDs
- Freeways
- Major Rds
- Minor Rds
- Railroads
- Harris Co Parcels (2023-04)
- County Line
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations
- 1.2m Resolution Metadata



Buffer Zone Map

Print Date: 6/5/2025 11:00:18 AM IDS Engineering Group

1 inch = 300 feet

N W E S

Patrick Bond

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: Harris County Municipal Utility District No. 387

   Permit No. WQ00 14347-001 EPA ID No. TX 0124907

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

   25810 ½ Gosling Road, Spring, Tx, 77389

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: Chad Abram

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.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: cabram@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.

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.

Discharge from a 36-inch pipe into Spring, Creek, Segment No. 1008

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):

There are no caves or karst features on the WWTP site. The surface area to be impacted is 6.46 acres

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

There are existing wastewater treatment units at the WWTP site surrounded by grass.

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

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

N/A

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

N/A

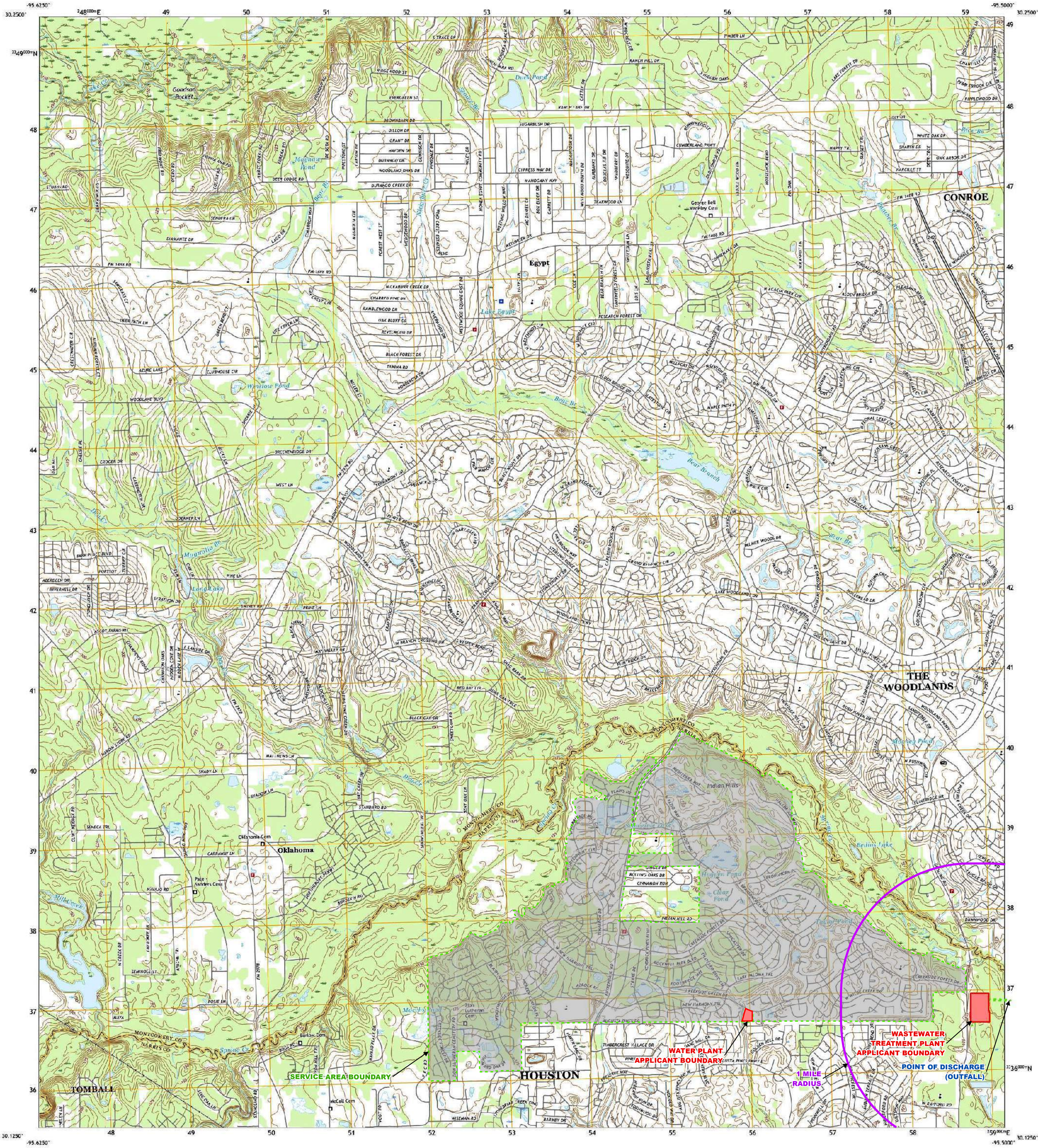
Attachment No. 10:

USGS 7.5’ Quadrangle Map
(SPIF, 5)

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

The National Map US Topo

OKLAHOMA QUADRANGLE
TEXAS
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 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.....NAIP, September 2016 - November 2016
Roads.....U.S. Census Bureau, 2015 - 2019

MN
GN
1°17'
23 MILS
2°28'
44 MILS
UTM GRID AND 2019 MAGNETIC NORTH

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

TEXAS
QUADRANGLE LOCATION

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

IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

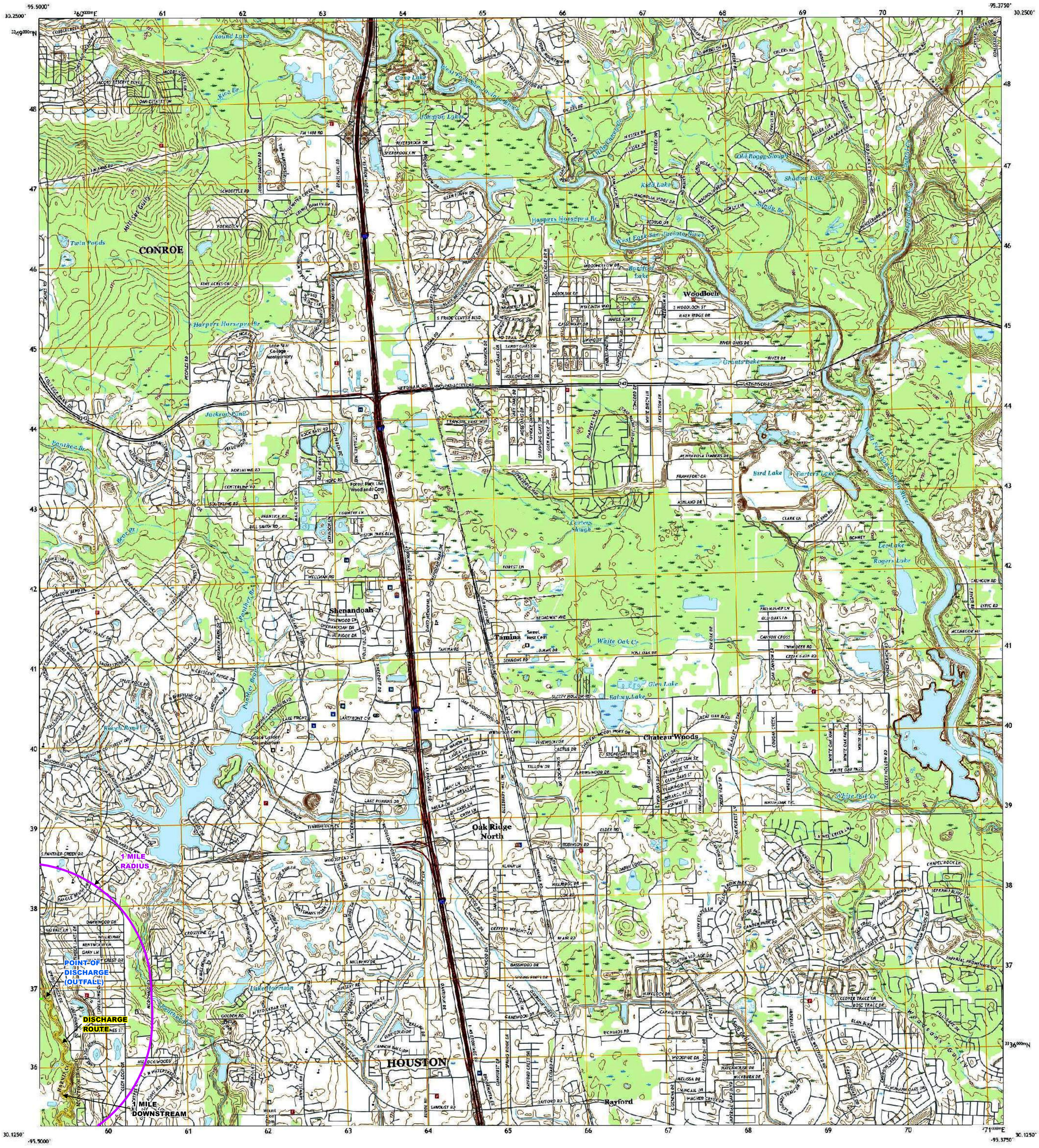
N
0 1,000 2,000 4,000 6,000 8,000 Feet
1 inch = 2,000 feet

H.C.M.U.D. NO. 387 WWTP
USGS 7.5' QUADRANGLE MAP
ATTACHMENT NO. 10

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

The National Map US Topo

TAMINA QUADRANGLE
TEXAS
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 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.....NAIP, September 2016 - November 2016

GN 2°24' 43 MILS
1°14' 22 MILS

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

TEXAS
QUADRANGLE LOCATION

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

IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

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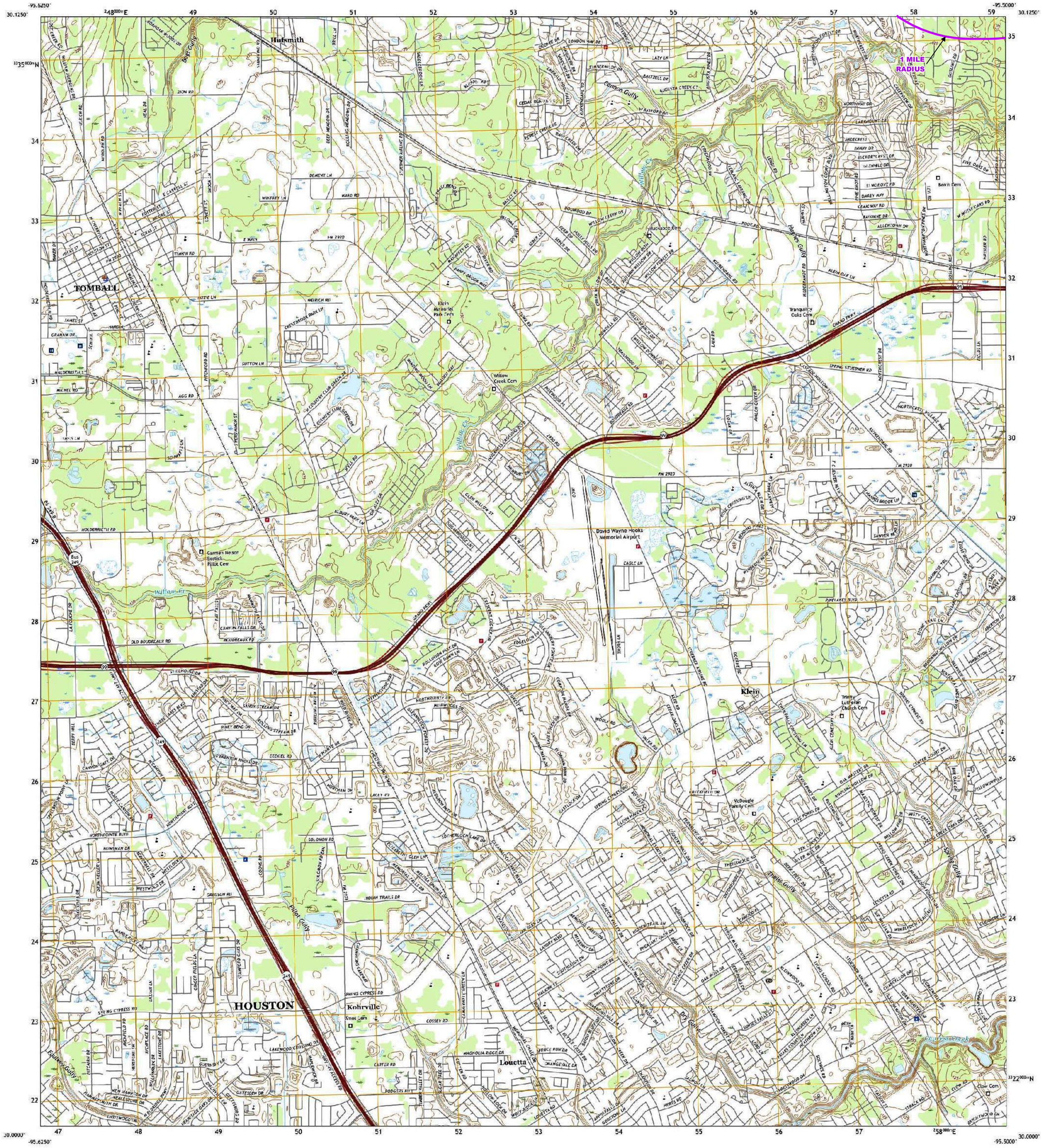
0 1,000 2,000 4,000 6,000 8,000 Feet
1 inch = 2,000 feet

H.C.M.U.D. NO. 387 WWTP
USGS 7.5' QUADRANGLE MAP
ATTACHMENT NO. 10

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

The National Map US Topo

TOMBALL QUADRANGLE
TEXAS - HARRIS COUNTY
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 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.....NAIP, September 2016 - November 2016

MN 2°28' 44 MILS GN 1°17' 23 MILS

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

TEXAS
QUADRANGLE LOCATION

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

IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
TxEng Firm 2726
TxSurv Firm 10110700

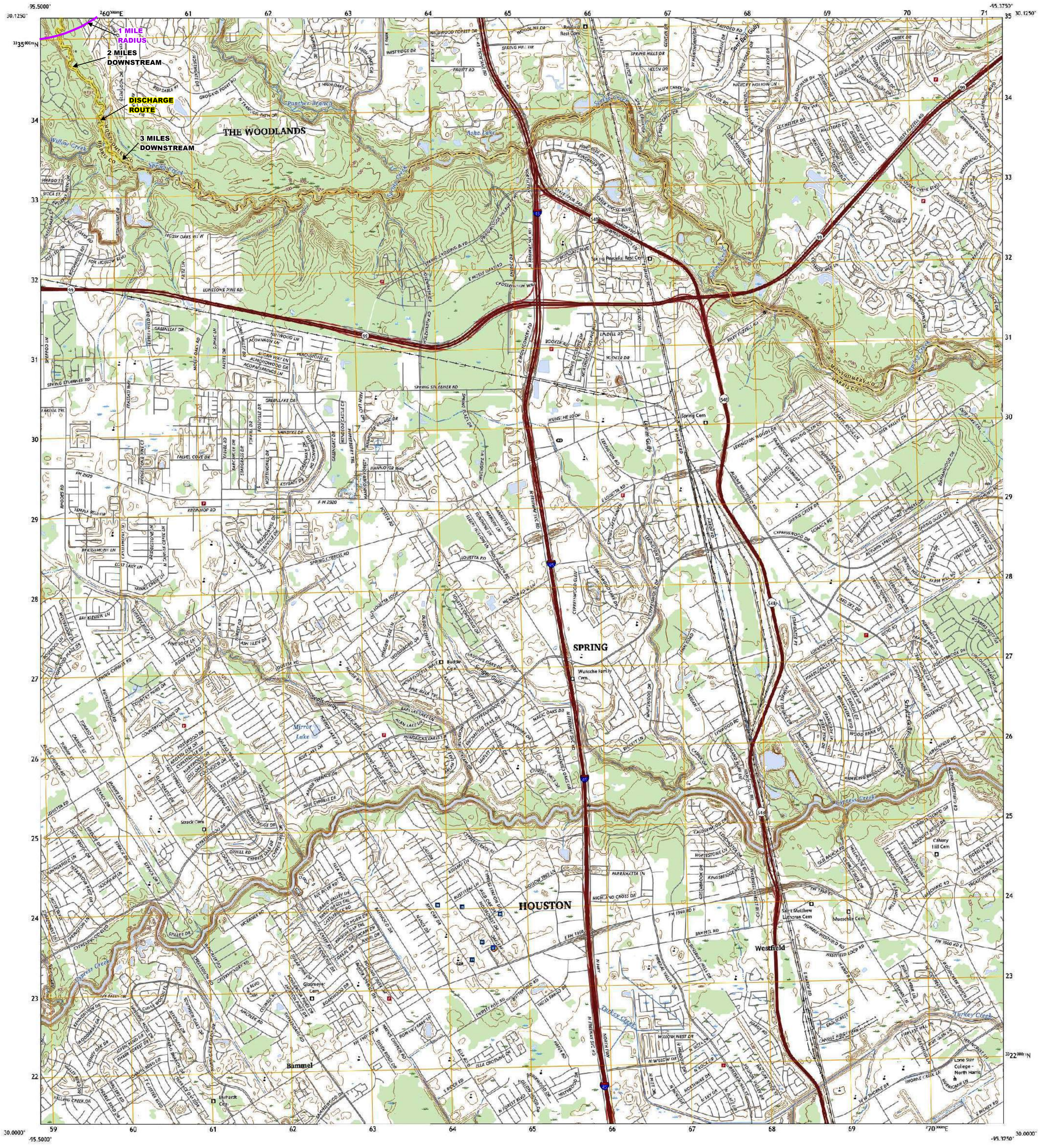
N
0 1,000 2,000 4,000 6,000 8,000 Feet
1 inch = 2,000 feet

H.C.M.U.D. NO. 387 WWTP
USGS 7.5' QUADRANGLE MAP
ATTACHMENT NO. 10

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

The National Map US Topo

SPRING QUADRANGLE
TEXAS
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 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 ..... NAIP, September 2016 - November 2016

1°13' 22 MILS | 2°0' 36 MILS

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

TEXAS
QUADRANGLE LOCATION

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

IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Texas 77040
713.462.3178
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N
0 1,000 2,000 4,000 6,000 8,000 Feet
1 inch = 2,000 feet

H.C.M.U.D. NO. 387 WWTP
USGS 7.5' QUADRANGLE MAP
ATTACHMENT NO. 10

Attachment No. 11:

Description of Treatment Process
(Tech. Report 1.0, Section 2.A)

Technical Report 1.0

3. Treatment Units
a. Description

Existing Phase. Within the existing phase, the first portion totaling 0.96 MGD flow was designed and built under Chapter 317 regulations and the remaining portion totaling 0.54 MGD was designed and built under Chapter 217 regulations. The total permitted flow of the existing phase is 1.5 MGD.

The existing 0.96 MGD treatment facility has been modified to accommodate a centralized headworks with a fine mechanical screen. The existing 0.96 MGD treatment facility has twelve rectangular basins with a total of 47,616 CF aeration volume and a total of 32,256 CF digester volume, four 32-ft diameter clarifiers and two 3,592 CF chlorine contact basins, totaling 7,184 CF, sized for a 20-minute contact time.

The existing 0.54 MGD treatment facility utilizes the centralized headworks with a fine mechanical screen. The existing 0.54 MGD treatment unit has six rectangular basins with a total of 35,328 CF aeration volume and a total of 33,024 CF digester volume, a 48-ft diameter clarifier and a 4,431 CF chlorine contact basin sized for a 20-minute contact time.

Return sludge pumps are provided and sized to produce 75 to 175 percent of average daily flow. Treated effluent flows from the plant to the outfall via a 36-inch pipe. Sludge is disposed by a contract hauler.

The total existing phase aeration volume is 82,944 CF. The total existing phase digester volume is 65,280 CF. There are four 32-ft diameter clarifiers and one 48-ft diameter clarifier. The total existing phase chlorine contact basin volume is 11,615 CF.

ACTIVE / *Interim Phase II*. With the construction of this phase, the entire plant will be brought into compliance with current regulations under Chapter 217. The existing treatment capacity will be expanded by 0.30 MGD to a total permitted flow of 1.8 MGD. The proposed 0.30 MGD treatment facility will have six rectangular basins with a total of 46,440 CF aeration volume and a total of 43,021 CF digester volume, a 56-ft diameter clarifier and a 5,762 CF chlorine contact basin sized for a 20-minute contact time. Return sludge pumps will be sized to produce 75 to 175 percent of average daily flow. Treated effluent will flow from the plant to the outfall via a 36-inch pipe. Sludge will be disposed by a contract hauler.

The total interim phase II aeration volume will be 129,208 CF. The total interim phase II digester volume will be 108,322 CF. There will be a total of four 32-ft diameter clarifiers, one 48-ft clarifier, and one 56-ft diameter clarifier. The total interim phase II chlorine contact basin volume will be 17,305 CF.

Final Phase. The final phase will comply with current regulations under Chapter 217. The interim phase II will be expanded by 1.20 MGD to a total permitted flow of 3.0 MGD. The proposed 1.20 MGD treatment facility will have six rectangular basins with a total of 75,288 CF aeration volume and a total of 70,678 CF digester volume, two 48-ft diameter clarifiers and a 6,330 CF chlorine contact basin sized for 20-minute contact time. Return sludge pumps will be sized to produce 75 to 175 percent of average daily flow. Treated effluent will flow from the plant to the outfall via a 36-inch pipe. Sludge will be disposed by a contract hauler.

The total final phase aeration volume will be 189,601 CF. The total final phase digester volume will be 176,035 CF. There will be four 32-ft diameter clarifiers and four 48-ft diameter clarifiers. The total final phase chlorine contact basin volume will be 22,376 CF.

Attachment No. 12:

Treatment Units
(Tech. Report 1.0, Section 2.B)

Technical Report 1.0
3. Treatment Units
b. Dimensions

Existing/Interim Phase I -1.5 MGD Flow

Basin Type	Dimensions (length x width x side water depth)
12 - Aeration	31’ x 12’ x 10.67’
4 - Clarifier	32’ diameter
2 - Chlorine Contact	25’ x 16’ x 8.98’
12 - Digester	21’ x 12’ x 10.67’
6 - Aeration	46’ x 12’ x 10.67’
1 - Clarifier	48’ diameter
1 - Chlorine Contact	35’ x 12’ x 10.55’
6 - Digester	43’ x 12’ x 10.67’

Current/Interim Phase II – 1.8 MGD Flow

Basin Type	Dimensions (length x width x side water depth)
12 - Aeration	31’ x 12’ x 10.67’
4 - Clarifier	32’ diameter
2 - Chlorine Contact	25’ x 16’ x 8.98’
12 - Digester	21’ x 12’ x 10.67’
6 - Aeration	46’ x 12’ x 10.67’
1 - Clarifier	48’ diameter
1 - Chlorine Contact	35’ x 12’ x 10.55’
6 - Digester	43’ x 12’ x 10.67’
6 - Aeration	59’ x 12’ x 10.67’
1 - Clarifier	56’ diameter
1 - Chlorine Contact	47’ x 12’ x 10.55’
6 - Digester	55’ x 12’ x 10.67’

Final Phase – 3.0 MGD Flow

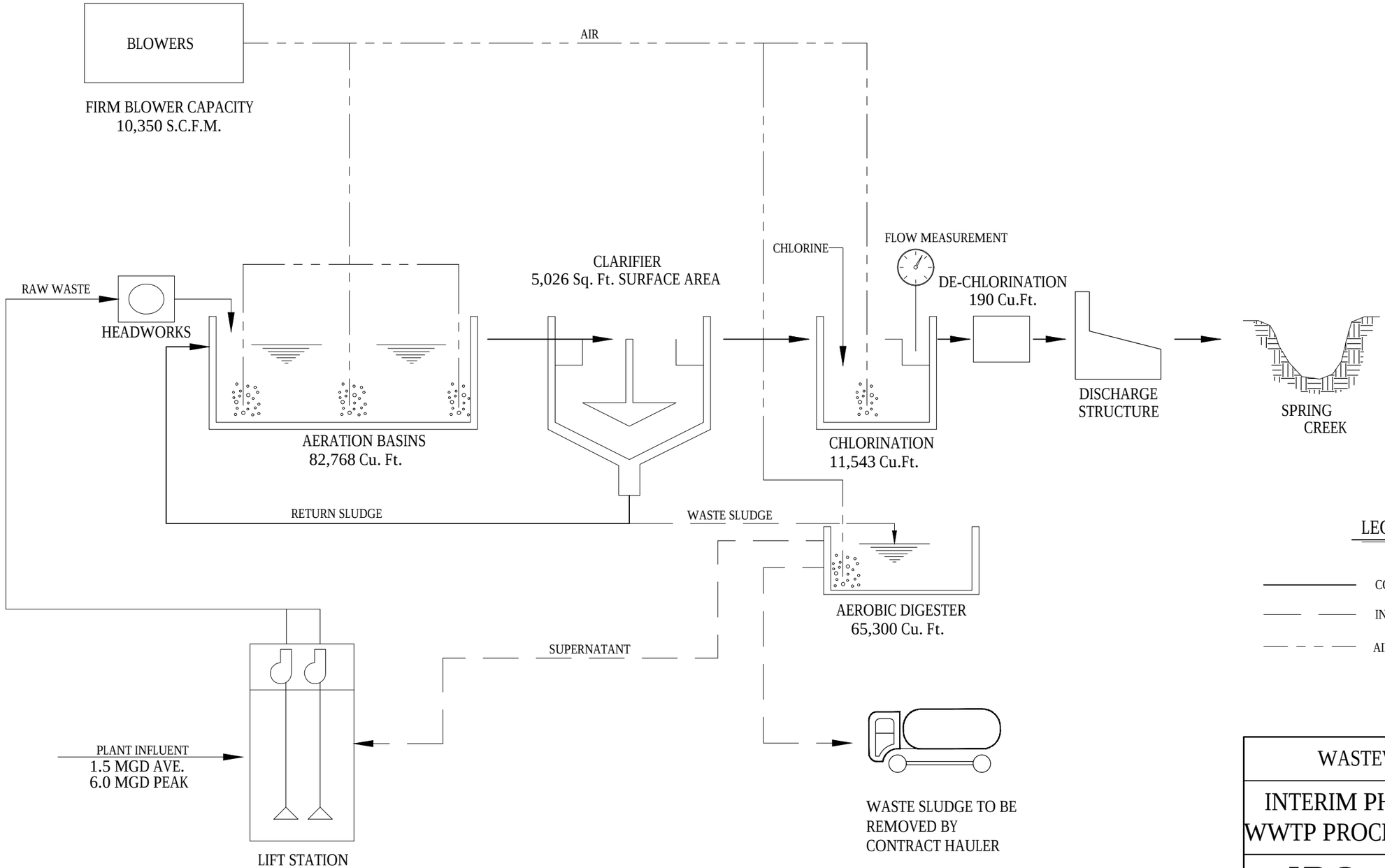
Basin Type	Dimensions (length x width x side water depth)
12 - Aeration	31’ x 12’ x 10.67’
4 - Clarifier	32’ diameter
2 - Chlorine Contact	25’ x 16’ x 8.98’
12 - Digester	21’ x 12’ x 10.67’
6 - Aeration	46’ x 12’ x 10.67’
1 - Clarifier	48’ diameter

1 - Chlorine Contact	35’ x 12’ x 10.55’
6 - Digester	43’ x 12’ x 10.67’
6 - Aeration	*59’ x 12’ x 10.67’*
1 - Clarifier	*56’ diameter*
1 - Chlorine Contact	*43 x 12’ x 10.55’*
6 - Digester	*55’ x 12’ x 10.67’*
12 - Aeration	***49’ x 12’ x 10.67’***
2 - Clarifier	***48’ diameter***
1 - Chlorine Contact	***50’ x 12’ x 10.55’***
12 - Digester	***46’ x 12’ x 10.67’***

Attachment No. 13:

Flow Diagrams
(Tech. Report 1.0, Section 2.C)

MODE OF TREATMENT
COMPLETE MIX ACTIVATED SLUDGE
WITH NITRIFICATION



LEGEND

- CONTINUOUS FLOWS
- INTERMITTENT FLOWS
- AIR LINES

WASTEWATER FACILITY

INTERIM PHASE I - 1.5 M.G.D.
WWTP PROCESS FLOW DIAGRAM

IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Tx. 77040
713.462.3178
TBPE F-002726
TBPLS 10110700

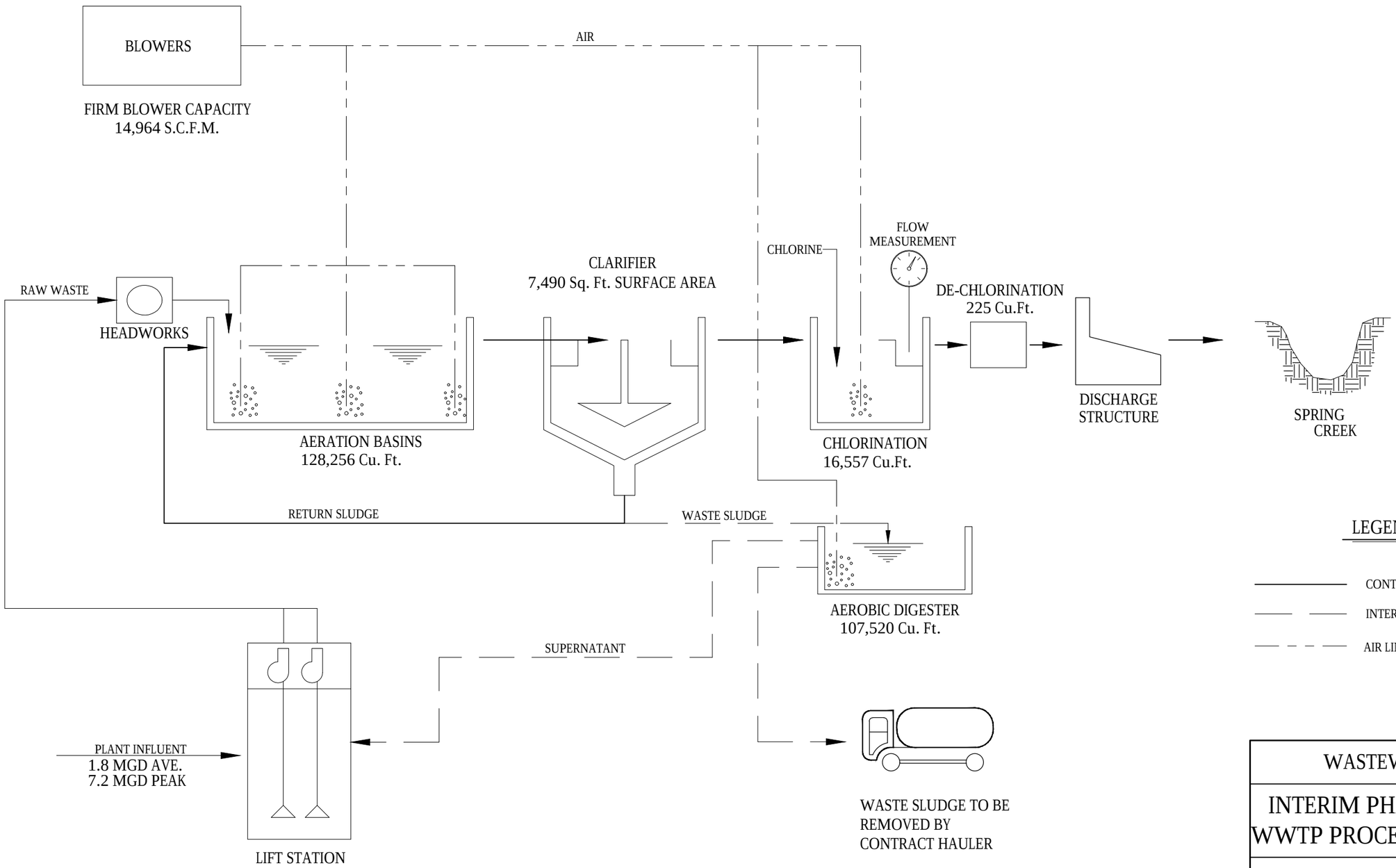
ATTACHMENT NO. 13

JOB NO.: 1414-010-00

DATE: MAY 2025

SHEET 1 OF 3

MODE OF TREATMENT
COMPLETE MIX ACTIVATED SLUDGE
WITH NITRIFICATION



LEGEND

- CONTINUOUS FLOWS
- INTERMITTENT FLOWS
- AIR LINES

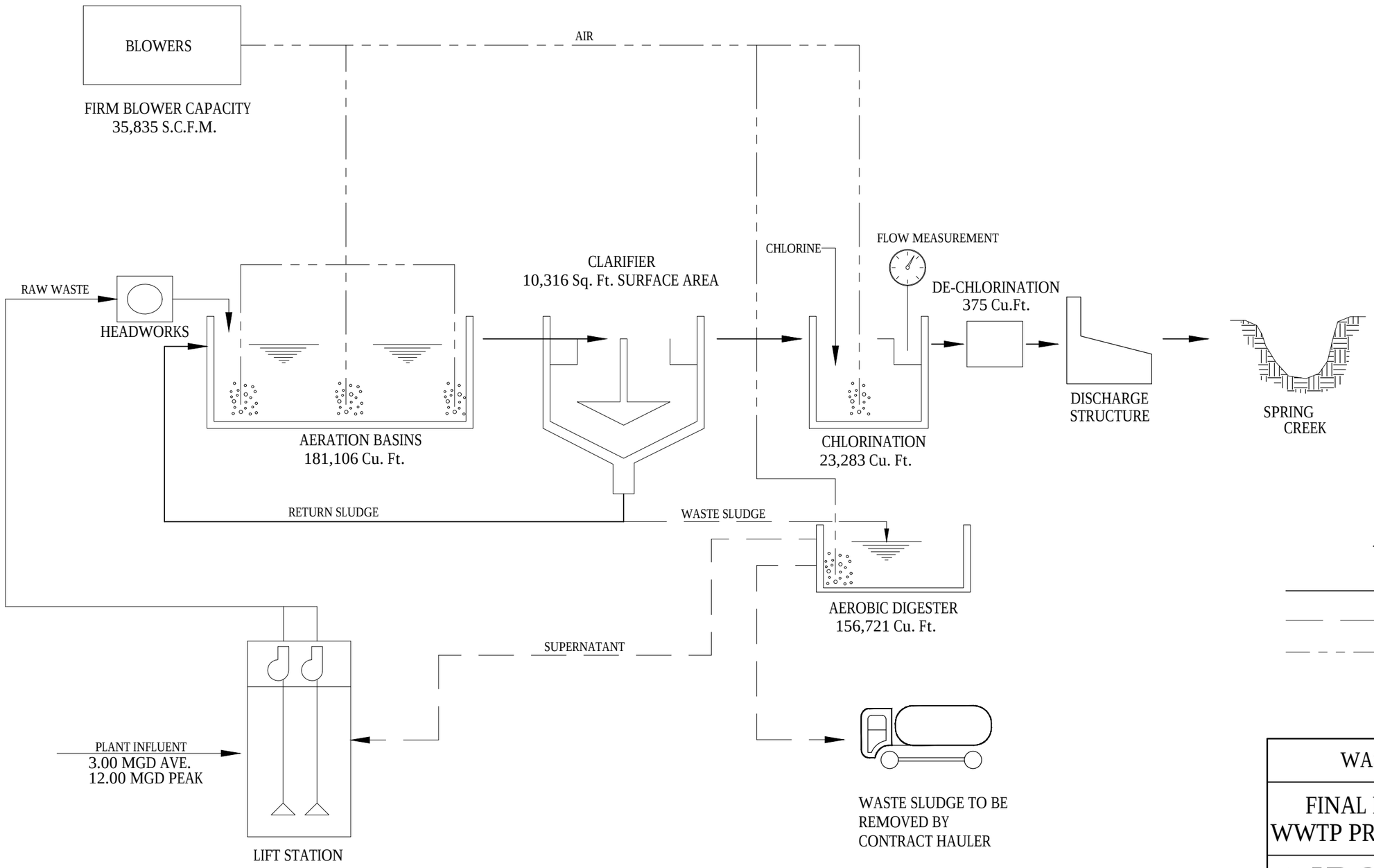
WASTEWATER FACILITY

INTERIM PHASE II - 1.8 M.G.D.
WWTP PROCESS FLOW DIAGRAM

IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Tx. 77040
713.462.3178
TBPE F-002726
TBPLS 10110700

ATTACHMENT NO.	13
JOB NO.:	1414-010-00
DATE:	MAY 2025

MODE OF TREATMENT
COMPLETE MIX ACTIVATED SLUDGE
WITH NITRIFICATION



LEGEND

- CONTINUOUS FLOWS
- INTERMITTENT FLOWS
- AIR LINES

WASTEWATER FACILITY

FINAL PHASE - 3.00 M.G.D.
WWTP PROCESS FLOW DIAGRAM

IDS Engineering Group
13430 NW. Freeway
Suite 700
Houston, Tx. 77040
713.462.3178
TBPE F-002726
TBPLS 10110700

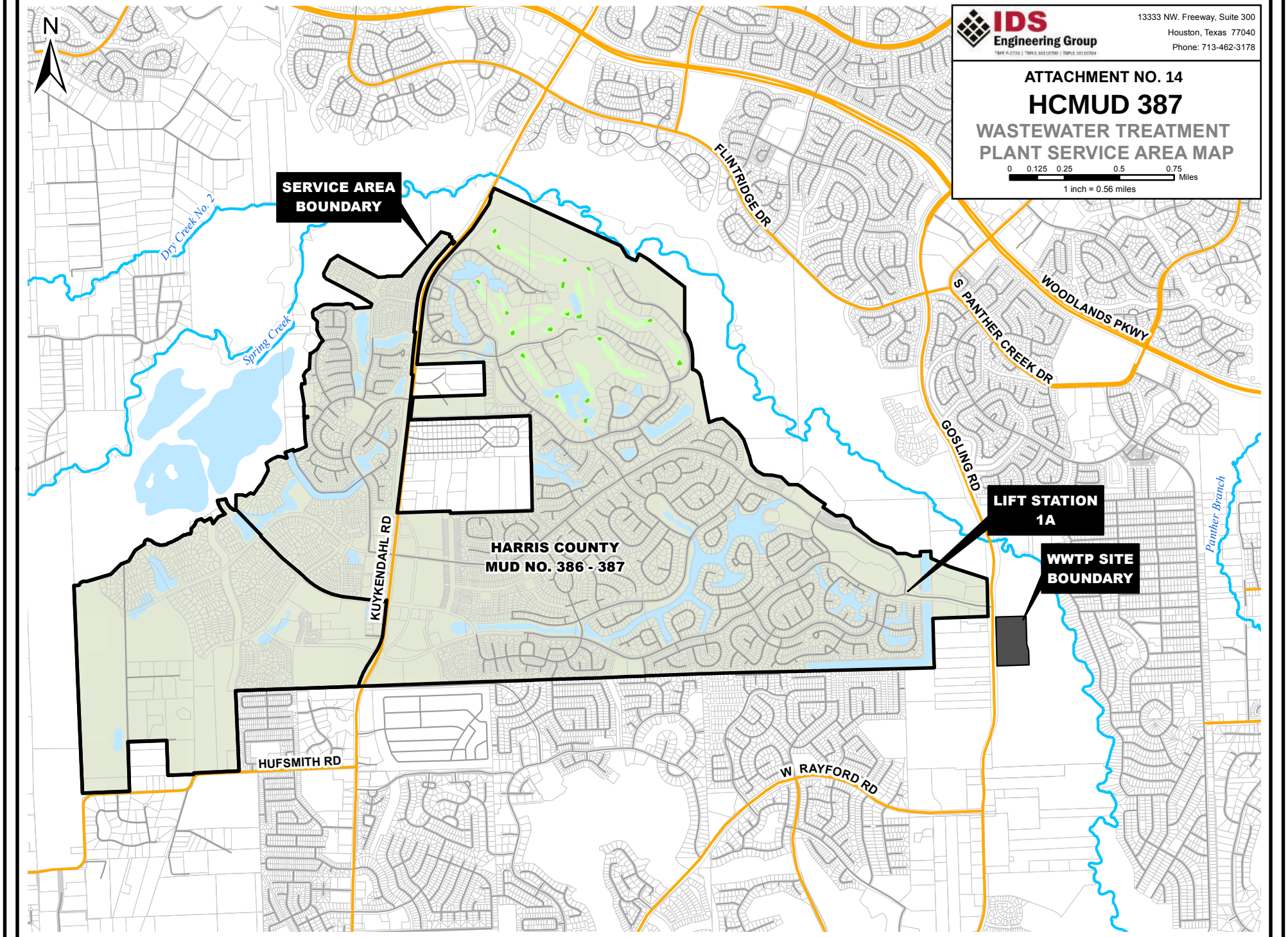
ATTACHMENT NO. 13

JOB NO.: 1414-010-00

DATE: MAY 2025

Attachment No. 14:

Site Drawing
(Tech. Report 1.0, Section 3)


N
IDS Engineering Group
13333 NW. Freeway, Suite 300
Houston, Texas 77040
Phone: 713-462-3178
ATTACHMENT NO. 14
HCMUD 387
WASTEWATER TREATMENT PLANT SERVICE AREA MAP
0 0.125 0.25 0.5 0.75 Miles
1 inch = 0.56 miles
SERVICE AREA BOUNDARY
Dry Creek No. 2
Spring Creek
FLINTRIDGE DR
WOODLANDS PKWY
S PANTHER CREEK DR
GOSLING RD
LIFT STATION 1A
WWTP SITE BOUNDARY
Panther Branch
KUYKENDAHL RD
HARRIS COUNTY MUD NO. 386 - 387
HUFSMITH RD
W RAYFORD RD

Attachment No. 15:

Sewage Sludge Solids Management Plan
(Tech. Report 1.0, Section 6.F)

Existing/Interim I Phase - Capacity of Digester 1.5 MGD

The total design flow of the existing phase is 1.5 MGD, however, the first 0.96 MGD design flow was built for an influent concentration of 200 mg/L and the remaining 0.54 MGD design flow was built for an influent concentration of 265 mg/L. Therefore, the digester capacities are calcualted in two separate tables and their results combined.

Design Flow	**0.96**	MGD Influent Flow
Minimum Retention Time	**15**	days
Digester Volume	**32,256**	ft^3
Digester Dimensions	**12 @ 12'-0" W x 21'-0" L x 10'-8"D**	
Side Water Depth	**10.67**	ft.
Digester Sludge Retention Time	**15**	days

CBOD5 Removal	Influent concentration	**200.0**	mg/l
	Effluent concentration	**10.0**	mg/l
	Net removal	**190.0**	mg/l

Solids Generated	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Pounds BOD5/day removed	**1521**	**1141**	**761**	**380**
Pounds of dry sludge produced*	**479**	**359**	**240**	**120**
Pounds of wet sludge produced**	**31946**	**23959**	**15973**	**7986**
Volume of wet sludge produced in gals.	**3840**	**2880**	**1920**	**960**
Volume of wet sludge produced in ft^3	**513**	**385**	**257**	**128**
Days between sludge removal	**63**	**84**	**126**	**251**

Design Flow	**0.54**	MGD Influent Flow
Minimum Retention Time	**15**	days
Digester Volume	**33,024**	ft^3
Digester Dimensions	**6 @ 12'-0" W x43'-0" L x 10'-8"D**	
Side Water Depth	**10.67**	ft.
Digester Sludge Retention Time	**15**	days

CBOD5 Removal	Influent concentration	**265.0**	mg/l
	Effluent concentration	**10.0**	mg/l
	Net removal	**255.0**	mg/l

Solids Generated	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Pounds BOD5/day removed	**1148**	**861**	**574**	**287**
Pounds of dry sludge produced*	**362**	**271**	**181**	**90**
Pounds of wet sludge produced**	**24117**	**18088**	**12058**	**6029**
Volume of wet sludge produced in gals.	**2899**	**2174**	**1449**	**725**
Volume of wet sludge produced in ft^3	**387**	**291**	**194**	**97**
Days between sludge removal	**85**	**114**	**170**	**341**

Total Design Flow	**1.50**	MGD Influent Flow
Total Digester Volume	**65,280**	ft^3

Combined Solids Generated	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Pounds BOD5/day removed	**2670**	**2002**	**1335**	**667**
Pounds of dry sludge produced*	**841**	**631**	**420**	**210**
Pounds of wet sludge produced**	**56062**	**42047**	**28031**	**14016**

Volume of wet sludge produced in gals.	**6738**	**5054**	**3369**	**1685**
Volume of wet sludge produced in ft^3	**901**	**676**	**450**	**225**
Removal Schedule (days)	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Days between sludge removal	**72**	**97**	**145**	**290**

MLSS operating range = 3000 mg/l

The sludge is wasted from the clarifier to the aerobic digester. At the digester the sludge is further processed to achieve sludge stabilization.

Following stabiliztion the sludge is periodically removed from the digester and hauled offsite by a registrated hauler to a registered site.

*Assuming 0.315 pounds of dry sludge produced per pound of BOD5 removed.
**Assuming 1.5% solids.

Interim II Phase - Capacity of Digester 1.8 MGD

Design Flow	**1.80**	MGD Influent Flow
Minimum Retention Time	**15**	days
Digester Volume	**108,322**	ft^3
Digester Dimensions	**12 @ 12'-0" W x 21'-0" L x 10'-8"D**	
Digester Dimensions	**12 @ 12'-0" W x31'-0" L x 10'-8"D**	
Digester Dimensions	**6 @ 12'-0" W x 43'-0" L x 10'-8" D**	
Digester Dimensions	**6 @ 12'-0" W x 55'-0" L x 10'-8" D**	
Side Water Depth	**10.67**	ft.
Digester Sludge Retention Time	**15**	days

CBOD5 Removal	Influent concentration	**265.0**	mg/l
	Effluent concentration	**10.0**	mg/l
	Net removal	**255.0**	mg/l

Solids Generated	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Pounds BOD5/day removed	**3828**	**2871**	**1914**	**957**
Pounds of dry sludge produced*	**1206**	**904**	**603**	**301**
Pounds of wet sludge produced**	**80389**	**60292**	**40195**	**20097**
Volume of wet sludge produced in gals.	**9662**	**7247**	**4831**	**2416**
Volume of wet sludge produced in ft^3	**1292**	**969**	**646**	**323**

*Assuming 0.315 pounds of dry sludge produced per pound of BOD5 removed.
**Assuming 1.5% solids.

MLSS operating range = 3000 mg/l

The sludge is wasted from the clarifier to the aerobic digester. At the digester the sludge is further processed to achieve sludge stabilization.

Removal Schedule (days)	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Days between sludge removal	**84**	**112**	**168**	**335**

Following stabiliztion the sludge is periodically removed from the digester and hauled offsite by a registrated hauler to a registered site.

Final Phase - Capacity of Digester 3.0 MGD

Design Flow	**3.00**	MGD Influent Flow
Minimum Retention Time	**15**	days
Digester Volume	**178,978**	ft^3
Digester Dimensions	**12 @ 12'-0" W x 21'-0" L x 10'-8"D**	
Digester Dimensions	**12 @ 12'-0" W x31'-0" L x 10'-8"D**	
Digester Dimensions	**6 @ 12'-0" W x 43'-0" L x 10'-8" D**	
Digester Dimensions	**6 @ 12'-0" W x 55'-0" L x 10'-8" D**	
Digester Dimensions	**12 @ 12'-0" W x 46'-0" L x 10'-8" D**	
Side Water Depth	**10.67**	ft.
Digester Sludge Retention Time	**15**	days

CBOD5 Removal	Influent concentration	**265.0**	mg/l
	Effluent concentration	**10.0**	mg/l
	Net removal	**255.0**	mg/l

Solids Generated	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Pounds BOD5/day removed	**6380**	**4785**	**3190**	**1595**
Pounds of dry sludge produced*	**2010**	**1507**	**1005**	**502**
Pounds of wet sludge produced**	**133982**	**100487**	**66991**	**33496**
Volume of wet sludge produced in gals.	**16104**	**12078**	**8052**	**4026**
Volume of wet sludge produced in ft^3	**2153**	**1614**	**1076**	**538**

*Assuming 0.315 pounds of dry sludge produced per pound of BOD5 removed.
**Assuming 1.5% solids.

MLSS operating range = 3000 mg/l

The sludge is wasted from the clarifier to the aerobic digester. At the digester the sludge is further processed to achieve sludge stabilization.

Removal Schedule (days)	**100% Flow**	**75% Flow**	**50% Flow**	**25% Flow**
Days between sludge removal	**83**	**111**	**166**	**333**

Following stabiliztion the sludge is periodically removed from the digester and hauled offsite by a registrated hauler to a registered site.

Attachment No. 16:

Written Statement / Contractual Agreement with Permitted Sludge Processing Facility
(Tech. Report. 1.0, Section 9.A.)

TERRA
renewal

May 14, 2012

Mr. David Ross
Pate Engineers
13333 Northwest Freeway, Suite 300
Houston, TX 77040

RE: Harris County Municipal Utility District No. 387 WWTP
Permit Application

Dear Mr. Ross:

The attached information is to be used for the referenced WWTP permit application. Sludge from the Harris County Municipal Utility District No. 387 WWTP may be transported to the Richey Road MUD WWTP as outlined in the attached "TRS Enviroganics' Houston Area Regional Biosolids Management Plan." A letter from Richey Road MUD confirming our agreement with the District is enclosed.

As an alternative to transporting biosolids to Richey Road MUD, we also transport biosolids directly to one of our land application farms. The list of Houston area farms is attached. The permit should allow for either method of sludge disposal.

Please note that TRS Enviroganics' TCEQ Transporter Number is 23777. Feel free to contact me at (713) 316-5050 if you have any questions.

Sincerely,

Cindy Carden

Cindy Carden
General Manager/Municipal Sales

Enclosures

RICHEY ROAD MUNICIPAL UTILITY DISTRICT
1001 McKinney, Suite 1000
Houston, Texas 77002-6424
(713) 237-1221

May 10, 2012

Texas Commission on Environmental Quality
Permits Division
P.O. Box 13087
Austin, TX 78711-3087

RE: Harris County Municipal Utility District No. 387 WWTP
Permit Application

To Whom It May Concern:

This letter serves as notice to the Texas Commission on Environmental Quality ("TCEQ") that Richey Road Municipal Utility District, TCEQ Permit No. TPDES 0012378-002 (the "District"), acknowledges the receipt of sludge generated from the Harris County Municipal Utility District No. 387 WWTP.

The District and TRS Enviroganics have entered into an agreement. This agreement allows TRS Enviroganics to bring sludge from municipal wastewater treatment plants to the District's wastewater treatment facility for dewatering (TCEQ Processing Permit No. WQ0004810-000). The District reserves the right to terminate this agreement with TRS Enviroganics, which permits the processing of sludge at the District's facility, to reject sludge from a Generator that does not comply with the agreement, and to refuse to accept sludge from any generator because of quality, quantity or other reasons.

Sincerely,

Dennis Cain

Dennis Cain
President
Richey Road M.U.D. Board of Directors

Cindy Carden

Cindy Carden
General Manager/Municipal Sales
TRS Enviroganics

cc: Alan Petrov, Johnson Radcliffe Petrov & Bobbitt

TRS Enviroganics, Inc.

Permitted Beneficial Land Application Farm Sites

Houston Area

Landowner	TCEQ Permit #	Longitude	Latitude	County	Location	Usable Acres
Barbra Look (water & wastewater)	WQ0004462000	96 Deg 5"	30 Deg 4"	Waller	4.8 mi. W. ofinterstn. of Hwy 290 and Hwy. 6	1,350.00
James Henderson (water & wastewater)	WQ0004460000	94 Deg 30'	30 Deg 33'	Liberty	1 mi S of intersection of Hwy 90 and FM 1009	2,000.00
Susan Cardwell (water & wastewater)	WQ0004501000	96 Deg 5'	30 Deg 6'	Waller	0.2 mi. W of intersection of FM 359 & Pierceall Rd.	115.00
						3,465.00

TCEQ Transporter Registration Number for TRS Enviroganics 23777

Richey Road MUD Wastewater Treatment Plant (sludge transfer and dewatering) **TPDES Permit Number 12378-002**
TRS Enviroganics and Richey Road MUD Processing Permit **TCEQ Permit Number WQ0004810000**

TERRA
renewal

REGIONAL BIOSOLIDS MANAGEMENT PLAN

Terra Renewal provides biosolids removal services for over 325 wastewater treatment plants throughout the Houston area. The regionalization of the sludge/biosolids management has resulted in cost effective disposal options for the wastewater treatment plants while maintaining the highest level of environmental compliance available. Terra Renewal liquid transports over 70,000,000 gallons of wastewater treatment residuals annually. Over 110,000 CY of cake biosolids are transported in end dumps and roll off boxes.

LIQUID MUNICIPAL SEWAGE SLUDGE

Liquid municipal sludges that are transported to the Richey Road MUD WWTP Processing Facility (TCEQ Processing Permit No. WQ0004810-000) are dewatered and transported to a co-disposal landfill. Sludges that have passed the required testing for compliance with USEPA 40 CFR 503 and TCEQ 30 TAC 312 beneficial land application requirements may also be transported directly to a permitted beneficial land application farm.

CAKE BIOSOLIDS

Cake biosolids are generated from municipal wastewater treatment plants with dewatering facilities. These facilities include belt presses, centrifuges, and drying beds. Land application is the preferred disposal method if biosolids meet USEPA 40 CFR Part 503 metals levels and Class B requirements. If site conditions do not allow for land application or biosolids do not meet USEPA CFR Part 503 Table 1 or Class B requirements, the biosolids may be landfilled.

LAND APPLICATION

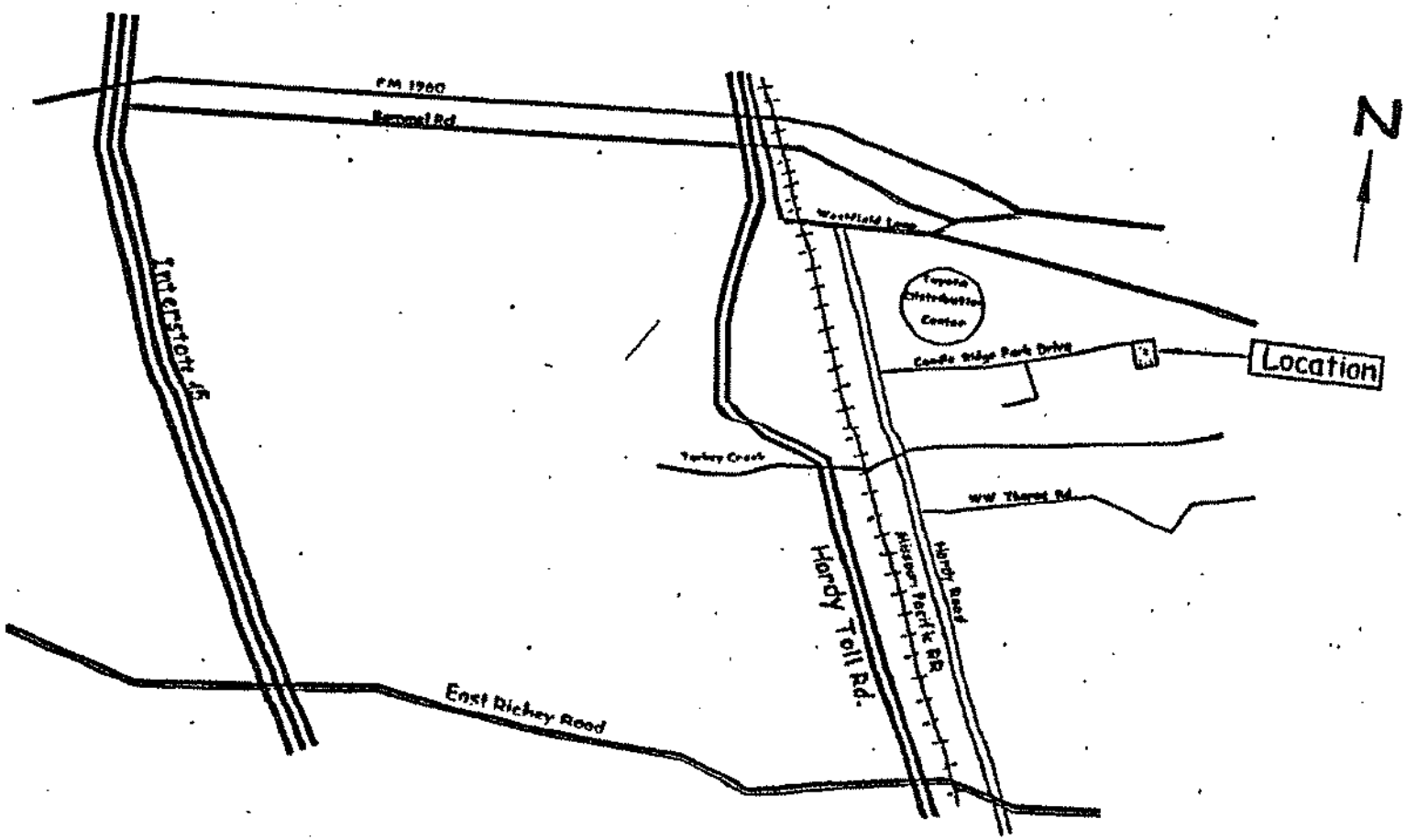
Terra Renewal utilizes farms in various locations surrounding the greater Houston area. All farms are owned by the farmer or rancher and the biosolids program is used to enhance the agricultural activities. Terra Renewal operates the biosolids beneficial land application program for each farm utilized. Site restrictions required by Texas Commission on Environmental Quality 30 TAC 312 rules, the USEPA 40 CFR Part 503 regulations, and those outlined in the land application site permit issued by the Texas Commission on Environmental Quality are followed at the farms.

Richey Road M.U.D. WWTP Processing Facility

TCEQ Permit No.: TPDES 0012378-002

USEPA Permit No. : TX0087319

Location: (Long: 95 Deg 23' 30" W, Lat: 30 Deg 00' 45" N)
From intersection of East Richey Road and Hardy Road, turn north. Drive approximately 0.9 miles to Candle Ridge Park Drive, just before the Toyota Distribution Center. Turn right and proceed to end of road. Facility will be on right.



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RICK L. BARKER

July 12, 2017

Ms. Rebecca Marcucci
Vice President
Municipal District Services, LLC
406 West Grand Parkway South
Suite 260
Katy, Texas 77494

Re: Harris County Municipal Utility District No. 387 (the "District")

Dear Rebecca:

Enclosed for your records is one (1) fully executed original of the Consent to Assumption of Agreement By and Among the District, Magna-Flow International, Inc. and Municipal District Services, L.L.C., entered into as of April 26, 2017.

Sincerely,

SCHWARTZ, PAGE & HARDING, L.L.P.

Julie Kime, Paralegal

Enclosure

CONSENT TO ASSUMPTION OF AGREEMENT
BY AND AMONG
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 387,
MAGNA-FLOW INTERNATIONAL, INC., AND
MUNICIPAL DISTRICT SERVICES, L.L.C.

This Consent to Assumption is entered into effective this 26th day of April, 2017, by and among HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 387, a political subdivision of the State of Texas (the "District"), MAGNA-FLOW INTERNATIONAL, INC. (d/b/a MANGA-FLOW ENVIRONMENTAL), a Texas corporation ("Magna-Flow"), and MUNICIPAL DISTRICT SERVICES, L.L.C., a Texas limited liability company ("MDS").

WITNESSETH:

WHEREAS, the District, Sludge-Net Dewatering Systems, Inc. (d/b/a Enviro Sludge Solutions), a Texas corporation ("Sludge Manager"), and MDS entered into that certain Sludge Management Agreement, dated effective May 23, 2013, as amended by the First Amendment to Sludge Management Agreement, dated effective January 27, 2016, for the collection, transportation, processing, disposal and control of the District's sewage waste (the "Sludge-Net Agreement"); and

WHEREAS, Manga-Flow entered into an agreement with Sludge Manager to acquire certain assets and operations of the Sludge Manager effective as of March 17, 2017, including Sludge Manager's right, title, interest and obligations in and to the Sludge-Net Agreement;

WHEREAS, the District, Magna-Flow, and MDS entered into that certain Sludge Management Agreement, dated effective March 1, 2009, for the collection, transportation, processing, disposal and control of the District's sewage waste (the "Magna-Flow Agreement"); and

WHEREAS, the District, Magna-Flow and MDS are desirous of affirming the Sludge-Net Agreement and the assumption of same by Magna-Flow.

NOW THEREFORE, for and in consideration of the mutual covenants and agreements herein contained and contained in the Sludge-Net Agreement, the District, Magna-Flow and MDS hereby (a) confirm and agree that the facts set forth in the recitals hereof are true and correct and made a part hereof, (b) acknowledge and affirm the effectiveness of the Sludge-Net Agreement and of the assumption by Magna-Flow of the Sludge-Net Agreement and of all obligations, duties, rights, titles and interests of Sludge Manager thereunder, all in accordance with the terms, provisions, stipulations and conditions of the Sludge-Net Agreement, and (c) acknowledge and affirm that this Consent to Assumption in no way affects the effectiveness of the Manga-Flow Agreement or Magna-Flow's obligations, duties, rights, titles and interests thereunder.

IN WITNESS WHEREOF, the District, Magna-Flow and MDS have each executed this Consent to Assumption in multiple originals by and through their duly authorized officers, on the date specified herein.

[SIGNATURES COMMENCE ON FOLLOWING PAGE]

HARRIS COUNTY MUNICIPAL UTILITY
DISTRICT NO. 387

By: _____

Name: Stephen A. Mills

Title: President, Board of Directors

MUNICIPAL DISTRICT SERVICES, L.L.C.,
a Texas limited liability company

By:_____
Name: Rebecca Marcucci
Title: Vice President

MAGNA-FLOW INTERNATIONAL, INC.
(d/b/a Manga-Flow Environmental),
a Texas corporation

By:_____
Name: Jerry McCurtain
Title: Vice President

456603.1

Attachment No. 17:

Proposed Amendment Description
(Admin Report 1.0, Section 2.e)

Attachment 17

Administrative Report 1.0, Section 2.e
Description of Proposed Changes to Permit by Amendment

The purpose of this amendment is to remove the Total Dissolved Solids (TDS) limits and monitoring in all phases up to and including the Final Phase for TPDES Permit WQ0014347001. TDS limits were initially added to this permit in 2012. Based on new information on the harmonic mean streamflow calculations for the receiving waters of Spring Creek that was not available at the time the TDS limit was introduced, the TDS limit should now be removed for the reasons set forth herein.

33 U.S.C. § 1342(o)(2)(B)(i) provides that a permit's modified effluent limitations may be less stringent if "information is available which was not available at the time of permit issuance . . . and which would have justified the application of a less stringent effluent limitation at the time of permit issuance."

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM I PHASE **January 2020**

TX0124907

		Grab Samples					Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l			TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0			<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	188	38	125	Report	Report	Day	
1	0.754	3.03	3.14	3.32	0.01	0.840															1	0
2	0.788	2.20	2.41	2.70	0.01	0.906	8.9	7.6		1.0	0.1	2.0	73	524	320	6.57	0.66	13.14	480	3444	2	0.1
3	0.892	2.72	2.13	3.02	0.02	1.214															3	3
4	0.871	3.29	3.08	2.99	0.02	0.366															4	0.25
5	0.787	3.23	3.13	3.02	0.02	0.841															5	0
6	0.813	2.90	3.41	2.25	0.03	0.852															6	0
7	0.849	3.22	2.92	Offline	0.02	0.902	9.1	7.8		1.0	0.2	2.4	72	524	350	7.08	1.42	16.99	510	3710	7	0
8	0.868	2.93	2.30	Offline	0.03	0.853															8	0
9	0.896	3.30	2.12	Offline	0.01	0.965	9.1	7.7	156	1.3	0.6	2.0	75	480	372	9.71	4.48	14.95	560	3587	9	0
10	0.933	3.00	2.69	Offline	0.02	0.880															10	0
11	0.848	3.42	2.90	Offline	0.01	1.184															11	0
12	0.719	3.10	2.55	Offline	0.02	0.913															12	0.25
13	0.844	2.92	2.41	Offline	0.01	0.651															13	0
14	0.944	2.70	2.95	Offline	0.01	1.034	9.4	7.6		1.0	0.1	2.0	60	492	296	7.87	0.79	15.75	472	3873	14	0
15	0.831	2.11	2.82	Offline	0.03	0.636															15	0
16	0.851	2.41	2.90	Offline	0.01	0.821	8.3	7.8		1.0	0.1	2.0	60	400	302	7.10	0.71	14.19	426	2839	16	0
17	0.817	2.80	2.41	Offline	0.03	0.731			2												17	0.1
18	0.802	2.52	2.69	Offline	0.02	0.715															18	0
19	0.733	2.71	2.52	Offline	0.01	1.101															19	0.5
20	0.715	2.39	2.11	Offline	0.03	0.677															20	0
21	0.997	2.20	2.34	Offline	0.02	0.808	9.2	7.7		1.0	0.1	2.0	70	448	314	8.31	0.83	16.63	582	3725	21	0
22	0.805	2.50	2.80	Offline	0.02	0.889															22	0
23	0.852	2.21	2.39	Offline	0.04	0.922	9.3	7.6	2	1.0	0.1	2.0	66	448	288	7.11	0.71	14.21	469	3183	23	1
24	0.833	2.85	2.10	Offline	0.02	0.394															24	0
25	0.606	3.09	2.70	2.10	0.04	0.741															25	0
26	0.667	3.40	2.30	2.71	0.03	0.553															26	0
27	0.418	2.91	2.67	2.25	0.02	1.120															27	0
28	0.798	3.41	2.12	2.80	0.01	0.962	8.8	7.6		1.0	0.1	2.0	67	480	286	6.66	0.67	13.31	446	3195	28	0
29	0.832	2.08	2.80	2.41	0.03	0.714															29	0
30	0.923	2.81	2.41	2.12	0.01	0.742	8.4	7.4	2	1.0	0.1	2.0	66	420	290	7.70	0.77	15.40	508	3233	30	0
31	0.757	3.10	2.32	2.50	0.05	0.701															31	0
										7.57	**1.23**	**14.95**	**495**	**3421**								
AVG	**0.827**					**0.827**			**6**	**1.03**	**0.17**	**2.04**	**68**	**468**								
MIN	**0.418**	**2.08**				**0.366**	**8.3**	**7.4**	**2**	**1.0**	**0.1**	**2.0**	**60**	**400**		**6.57**	**0.66**	**13.14**	**426**	**2839**		**0.00**
MAX	**0.997**	**3.42**			**0.05**	**1.214**		**7.8**	**156**	**1.3**	**0.6**	**2.4**	**75**	**524**		**9.71**	**4.48**	**16.99**	**582**	**3873**		**3.00**

2-Hour Peak Flow, <4,167 GPM:
1,250

Monthly Average Flows								
	01/20	0.827	04/19	0.831	07/19	0.753	10/19	0.792
	02/19	0.765	05/19	0.870	08/19	0.796	11/19	0.801
	03/19	0.731	06/19	0.827	09/19	0.835	12/19	0.795
			Annual Average Flow:				**0.802**	

Total **5.2**

Reading 1/1/2020 410946
Reading 2/1/2020 436574
# of days 31
Daily Average Flow= **0.8267** **MGD**

Reading 2/1/2019 142896
Reading 2/1/2020 436574
Total
Annual Average Flow: **0.805** **MGD**
Capacity: **55%**

Plant 3 was offline from January 7, 2020 to January 24, 2020 for inspection.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **February 2020**

TX0124907

		Grab Samples					Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l			TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0			<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit	MGD	Plant 1	Plant 2	Plant 3	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	188	38	125	Report	Report	Day	
1	0.757	3.52	2.84	2.74	0.01	0.797															1	0
2	0.793	3.70	2.55	2.52	0.02	1.087															2	0
3	0.839	2.81	2.80	2.41	0.01	0.645															3	0
4	0.839	2.42	3.11	3.12	0.01	0.946	8.7	7.6		1.0	0.1	2.0	69	496	294	7.00	0.70	13.99	483	3471	4	0
5	0.795	3.10	2.90	2.90	0.02	0.746															5	0
6	0.366	2.95	3.29	2.71	0.01	0.869	9.0	7.8	2	1.0	0.1	2.0	67	488	288	3.05	0.31	6.10	205	1490	6	0
7	0.429	2.71	2.92	2.85	0.01	0.619															7	0
8	0.618	2.82	3.11	2.79	0.02	0.799															8	0
9	0.615	2.89	3.02	2.71	0.01	0.917															9	0
10	0.334	2.41	2.91	3.00	0.01	1.064															10	0
11	1.045	2.80	Offline	2.05	0.02	0.881	8.8	7.6		1.0	0.1	2.0	69	508	284	8.72	0.87	17.43	601	4427	11	0.25
12	1.090	2.12	Offline	2.91	0.02	0.824															12	0.25
13	0.803	2.41	Offline	1.92	0.01	0.771	7.9	7.3	2	1.4	0.1	2.0	69	480	290	9.38	0.67	13.39	462	3215	13	0
14	0.765	2.10	Offline	2.39	0.01	0.685															14	0
15	0.818	3.22	Offline	3.50	0.03	0.815															15	0
16	0.786	3.13	Offline	3.22	0.03	0.830															16	0
17	0.796	2.91	Offline	3.01	0.02	0.906															17	0
18	0.846	2.39	Offline	2.71	0.01	0.742	8.8	7.3		1.0	0.1	2.0	69	472	280	7.06	0.71	14.11	487	3330	18	0
19	0.775	2.30	2.75	2.30	0.02	0.650															19	0.25
20	0.658	2.70	3.00	2.82	0.01	0.750	8.7	7.4	2	1.0	0.1	2.0	71	456	300	5.49	0.55	10.98	390	2502	20	0.25
21	0.766	2.35	3.71	2.41	0.02	0.677															21	0
22	0.753	2.82	3.52	2.73	0.01	0.794															22	0
23	0.753	3.10	3.15	2.52	0.02	0.984															23	0
24	0.836	3.71	2.91	2.30	0.01	0.822															24	0.5
25	0.844	2.39	2.40	2.82	0.01	0.684	10.2	7.3	10	1.0	0.1	2.0	71	588	294	7.04	0.70	14.08	500	4139	25	0
26	0.782	2.13	2.92	2.39	0.02	0.907															26	0
27	0.767	2.31	3.27	2.41	0.01	0.607	8.3	7.2		1.3	0.1	2.0	72	548	298	8.32	0.64	12.79	461	3505	27	0
28	0.742	2.14	2.71	3.00	0.03	0.783															28	0
29	0.814	2.23	2.89	2.82	0.02	0.794															29	0
30																					30	
31																					31	

										7.00	**0.64**	**12.86**	**448**	**3260**								
AVG	**0.807**					**0.807**			**3**	**1.09**	**0.10**	**2.00**	**70**	**505**								
MIN	**0.334**	**1.92**				**0.607**	**7.9**	**7.2**	**2**	**1.0**	**0.1**	**2.0**	**67**	**456**		**3.05**	**0.31**	**6.10**	**205**	**1490**		**0.00**
MAX	**1.090**	**3.71**			**0.03**	**1.087**		**7.8**	**10**	**1.4**	**0.1**	**2.0**	**72**	**588**		**9.38**	**0.87**	**17.43**	**601**	**4427**		**0.50**

2-Hour Peak Flow, <4,167 GPM:
1,667

Monthly	01/20	0.827	04/19	0.831	07/19	0.753	10/19	0.792
Average	02/20	0.807	05/19	0.870	08/19	0.796	11/19	0.801
Flows	03/19	0.731	06/19	0.827	09/19	0.835	12/19	0.795
			Annual Average Flow:				**0.805**	

Total **1.5**

Reading 2/1/2020 436574
Reading 3/1/2020 459969

# of days 29
Daily Average Flow= **0.8067**

Reading 3/1/2019 164323
Reading 3/1/2020 459969
Total
Annual Average Flow: **0.810 MGD**
Capacity: **54%**

Plant 2 was offline from February 11-18, 2020 for inspection.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **March 2020**

TX0124907

		Grab Samples					Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l			TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0			<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	188	38	125	Report	Report	Day	
1	0.774	2.32	2.82	2.91	0.02	0.862															1	0
2	0.839	2.09	3.11	3.11	0.01	0.896															2	0
3	0.898	2.70	3.30	3.50	0.03	0.865	8.3	7.4		1.0	0.1	2.0	72	660	292	7.49	0.75	14.98	539	4943	3	0
4	0.832	2.12	3.01	3.31	0.01	0.854															4	0.25
5	0.843	2.49	2.28	2.67	0.02	0.796	7.8	7.5	2	1.0	0.1	2.0	79	476	286	7.03	0.70	14.06	555	3347	5	0
6	0.826	2.72	2.72	2.10	0.01	0.762															6	0
7	0.815	3.00	3.39	3.11	0.02	1.062															7	0
8	0.775	3.00	3.39	3.11	0.01	0.489															8	0
9	0.785	2.31	2.91	2.42	0.01	0.821															9	0
10	0.691	3.72	3.31	2.94	0.02	0.592	9.2	7.5	57	1.0	0.1	2.0	71	512	302	5.76	0.58	11.53	409	2951	10	0
11	0.640	3.13	3.86	2.11	0.03	0.551															11	0
12	0.649	3.34	3.81	1.75	0.05	0.847	8.1	7.7		2.6	2.7	3.5	142	644	284	14.07	14.61	18.94	769	3486	12	0
13	0.750	2.98	3.18	2.25	0.02	0.700															13	0
14	0.750	3.15	3.52	3.70	0.02	0.843															14	0
15	0.827	3.42	3.34	3.42	0.01	0.968															15	0
16	0.874	3.21	3.70	2.91	0.03	0.771															16	0
17	0.854	3.11	3.89	2.99	0.01	1.050	8.7	7.4	2	1.0	0.1	2.0	65	552	300	7.12	0.71	14.24	463	3932	17	0
18	0.919	3.39	3.81	2.92	0.02	0.777															18	0
19	0.866	3.00	2.98	3.07	0.01	0.985	8.3	7.4		1.0	0.5	2.0	70	500	294	7.22	3.61	14.44	506	3611	19	0
20	0.916	3.20	3.30	2.99	0.01	1.358															20	0.2
21	0.840	3.20	3.30	2.99	0.01	0.799															21	1.7
22	0.767	3.12	3.31	3.51	0.01	0.674															22	0.3
23	0.946	2.79	3.71	3.10	0.02	0.904															23	0.25
24	0.902	2.90	3.82	3.27	0.01	0.968	8.7	7.4	2	1.0	0.1	2.0	68	488	294	7.52	0.75	15.05	512	3671	24	0
25	0.936	2.69	3.70	3.01	0.02	0.887															25	0
26	0.923	3.01	3.41	2.70	0.01	0.900	8.5	8.2		1.0	0.1	2.0	61	524	290	7.70	0.77	15.40	470	4034	26	0
27	0.891	2.90	3.75	2.91	0.02	0.877															27	0
28	0.716	2.81	3.59	3.00	0.02	0.909															28	0
29	0.551	2.98	3.37	2.79	0.02	0.885															29	0
30	0.874	2.70	3.79	2.30	0.01	0.862															30	0.28
31	0.871	2.88	3.40	2.71	0.01	0.918	8.2	7.3	19	1.0	0.1	2.0	60	512	300	7.26	0.73	14.53	436	3719	31	0.25
										7.91	**2.58**	**14.80**	**518**	**3744**								
AVG	**0.853**					**0.853**			**6**	**1.18**	**0.43**	**2.17**	**76**	**541**								
MIN	**0.551**		**1.75**			**0.489**	**7.8**	**7.3**	**2**	**1.0**	**0.1**	**2.0**	**60**	**476**		**5.76**	**0.58**	**11.53**	**409**	**2951**		**0.00**
MAX	**0.946**		**3.89**		**0.05**	**1.358**		**8.2**	**57**	**2.6**	**2.7**	**3.5**	**142**	**660**		**14.07**	**14.61**	**18.94**	**769**	**4943**		**1.70**

2-Hour Peak Flow, <4,167 GPM:
1,250

Reading	3/1/2020	459969	
Reading	4/1/2020	486401	
# of days			31
Daily Average Flow=		**0.8526**	

Monthly Average Flows								
	01/20	0.827	04/19	0.831	07/19	0.753	10/19	0.792
	02/20	0.807	05/19	0.870	08/19	0.796	11/19	0.801
	03/20	0.853	06/19	0.827	09/19	0.835	12/19	0.795

Annual Average Flow: **0.816**

Reading 4/1/2019 186999

Reading 4/1/2020 486401

Annual Average Flow: **0.820 MGD**

Capacity: **57%**

Total **3.23**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **April 2020**

TX0124907

DAY	24 Hour	Grab Samples: Chlorine mg/l			TCR mg/l	Flow MGD	Grab Samples: DO	pH	E. coli	Composite Samples: TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0			<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	188	38	125	Report	Report	Day	
1	0.893	3.52	3.72	2.89	0.02	0.814															1	0
2	0.842	3.10	3.81	2.41	0.03	0.918	7.8	7.7		1.0	1.4	2.0	71	496	308	7.02	9.83	14.04	499	3483	2	0
3	0.890	3.42	3.58	2.00	0.01	1.199															3	0
4	0.893	3.42	3.48	3.30	0.01	0.908															4	1
5	0.946	3.41	3.52	3.31	0.01	0.632															5	0.2
6	0.912	3.10	3.70	2.90	0.03	0.897															6	0
7	0.918	2.91	3.15	2.45	0.04	1.059	8.7	7.3	172	1.0	0.1	2.0	61	448	274	7.66	0.77	15.31	467	3430	7	0
8	0.912	3.71	3.69	2.00	0.02	0.846															8	0
9	0.969	2.70	3.01	2.71	0.01	0.881	8.1	7.8		1.0	0.1	2.0	60	452	410	8.08	0.81	16.16	485	3653	9	0
10	0.910	3.12	3.52	3.14	0.02	0.985															10	0
11	0.735	3.01	3.09	2.82	0.02	0.974															11	0
12	0.909	3.19	3.20	2.71	0.02	0.881															12	0.1
13	0.929	2.70	3.05	2.92	0.01	0.904															13	0
14	0.920	2.42	2.91	2.50	0.03	0.927	10.7	7.3		1.0	0.1	2.0	68	428	350	7.67	0.77	15.35	522	3284	14	0
15	0.932	2.91	3.39	2.41	0.01	0.922															15	0
16	0.927	3.00	3.69	2.80	0.01	0.867	7.9	8.1	2	1.0	0.1	2.0	67	480	308	7.73	0.77	15.46	518	3711	16	0
17	0.867	2.83	3.82	1.88	0.03	1.087															17	0
18	0.803	3.15	3.11	3.12	0.01	0.838															18	0
19	0.877	3.51	3.52	3.51	0.01	0.768															19	0.4
20	0.982	3.28	2.90	2.92	0.03	0.850															20	0.5
21	0.862	3.40	3.42	2.81	0.02	1.015	7.6	7.3	597	1.0	0.1	2.0	68	480	306	7.19	0.72	14.38	489	3451	21	0
22	0.876	3.01	3.82	2.39	0.01	0.723															22	0
23	0.853	2.64	3.30	2.92	0.03	0.826	8.0	7.8	2	1.0	0.1	2.0	68	392	306	7.11	0.71	14.23	484	2789	23	0
24	0.842	2.85	3.74	2.70	0.02	0.859															24	0
25	0.843	3.32	3.52	3.13	0.01	0.860															25	0
26	0.843	3.10	3.30	2.90	0.02	0.940															26	0
27	0.879	3.69	3.82	3.00	0.03	0.933															27	0
28	0.882	3.41	3.71	3.21	0.02	1.116	9.6	7.4	2	1.0	0.1	2.0	68	516	308	7.36	0.74	14.71	500	3796	28	0
29	0.959	3.80	3.40	2.91	0.04	0.756															29	1.25
30	0.999	3.68	3.71	3.00	0.01	0.855	7.7	7.8		1.0	0.1	2.0	68	524	308	8.33	0.83	16.66	567	4366	30	0
31																					31	

										7.57	**1.77**	**15.15**	**503**	**3551**								
AVG	**0.901**					**0.901**			**15**	**1.00**	**0.24**	**2.00**	**67**	**468**								
MIN	**0.735**	**1.88**				**0.632**	**7.6**	**7.3**	**2**	**1.0**	**0.1**	**2.0**	**60**	**392**		**7.02**	**0.71**	**14.04**	**467**	**2789**		**0.00**
MAX	**0.999**	**3.82**			**0.04**	**1.199**		**8.1**	**597**	**1.0**	**1.4**	**2.0**	**71**	**524**		**8.33**	**9.83**	**16.66**	**567**	**4366**		**1.25**

2-Hour Peak Flow, <4,167 GPM:
1,375

Monthly Average Flows								
	01/20	0.827	04/20	0.901	07/19	0.753	10/19	0.792
	02/20	0.807	05/19	0.870	08/19	0.796	11/19	0.801
	03/20	0.853	06/19	0.827	09/19	0.835	12/19	0.795

Total **3.45**

Reading	4/1/2020	486401	
Reading	5/1/2020	513441	
# of days			30
Daily Average Flow=		**0.9013333**	

Annual Average Flow: **0.821**

Reading	5/1/2019	211939
Reading	5/1/2020	513441
Annual Average Flow:		**0.826 MGD**
Capacity:		**60%**

*Used daily average flow for plant 1 from 7/12-7/18 when the flow meter stopped working. (0.144 MGD)

New flow meter installed 8/1/18 for final flow.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **May 2020**

TX0124907

		Grab Samples					Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l			TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0			<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	188	38	125	Report	Report	Day	
1	0.855	3.20	3.79	2.87	0.02	0.853															1	0
2	0.851	3.39	3.61	3.09	0.03	0.926															2	0
3	0.885	3.11	3.50	3.21	0.02	0.901															3	0
4	0.928	3.70	3.81	2.92	0.01	0.930															4	0
5	0.932	3.12	3.40	2.80	0.04	0.909	8.3	7.7	2	1.0	0.1	2.0	69	480	318	7.77	0.78	15.55	536	3731	5	0
6	0.903	3.79	3.82	2.92	0.02	0.868															6	0.5
7	0.885	3.88	3.79	3.20	0.03	0.986	7.8	7.6		1.0	0.1	2.0	69	472	320	7.38	0.74	14.76	509	3484	7	0
8	0.953	3.63	3.70	2.71	0.01	1.139															8	0
9	0.892	3.52	3.43	3.42	0.01	0.892															9	0
10	0.871	3.52	3.53	3.52	0.01	0.597															10	0
11	0.871	3.60	3.81	3.09	0.02	0.910															11	0
12	0.870	3.41	3.22	2.91	0.03	1.014	9.7		2	1.0	0.1	2.0	68	492	274	7.26	0.73	14.51	493	3570	12	0
13	0.984	3.10	3.87	3.30	0.01	0.927															13	0.25
14	0.934	3.45	3.71	3.09	0.02	1.048	8.1	8.4		1.0	0.1	3.2	67	460	320	7.79	0.78	24.93	522	3583	14	0
15	1.038	3.71	3.79	3.22	0.02	0.921															15	0
16	0.961	3.52	3.70	3.34	0.01	0.943															16	0.5
17	0.961	3.74	3.92	3.13	0.02	0.954															17	0
18	0.922	3.41	3.41	2.91	0.01	0.810															18	0
19	0.868	3.12	3.71	3.20	0.03	0.952	9.2	7.4	2	1.0	0.1	3.1	73	468	322	7.24	0.72	22.44	528	3388	19	0
20	0.900	3.51	3.40	3.51	0.02	0.971															20	0
21	0.961	3.15	3.85	3.12	0.01	0.912	7.8	8.5		1.0	0.1	2.0	72	444	270	8.01	0.80	16.03	577	3559	21	0
22	0.915	3.40	3.51	3.29	0.01	0.902															22	0
23	0.916	3.09	3.70	3.21	0.02	0.915															23	0
24	0.911	3.31	3.53	3.40	0.01	0.977															24	0
25	1.037	3.52	3.74	3.12	0.02	1.045															25	1.25
26	0.932	3.11	3.31	2.91	0.01	0.959	8.7	7.4	2	1.0	0.1	2.5	70	472	300	7.77	0.78	19.43	544	3669	26	1
27	1.011	3.41	3.70	2.79	0.03	1.020															27	0
28	1.004	3.20	3.01	3.02	0.01	1.066	7.8	8.7		1.0	0.1	2.0	70	500	306	8.37	0.84	16.75	586	4187	28	1.25
29	0.994	2.91	3.69	3.31	0.03	1.159															29	0
30	0.898	3.12	3.50	3.42	0.01	0.678															30	0
31	0.917	3.53	3.52	3.52	0.03	0.811															31	0
Daily Average loading (lbs/day)										**7.70**	**0.77**	**18.05**	**537**	**3646**								
AVG	**0.932**					**0.932**			**2**	**1.00**	**0.10**	**2.35**	**70**	**474**								
MIN	**0.851**	**2.71**				**0.597**	**7.8**	**7.4**	**2**	**1.0**	**0.1**	**2.0**	**67**	**444**		**7.24**	**0.72**	**14.51**	**493**	**3388**		**0.00**
MAX	**1.038**	**3.92**			**0.04**	**1.159**		**8.7**	**2**	**1.0**	**0.1**	**3.2**	**73**	**500**		**8.37**	**0.84**	**24.93**	**586**	**4187**		**1.25**

TOTAL 4.75

2-Hour Peak Flow, <4,167 GPM:
1,458

Monthly Average Flows								
	01/20	0.827	04/20	0.901	07/19	0.753	10/19	0.792
	02/20	0.807	05/20	0.932	08/19	0.796	11/19	0.801
	03/20	0.853	06/19	0.827	09/19	0.835	12/19	0.795
			Annual Average Flow:				**0.827**	

Reading 5/1/2020 513441
Reading 6/1/2020 542336
# of days 31
Daily Average Flow= **0.932097**

Reading 6/1/2019 238899
Reading 6/1/2020 542336
Annual Average Flow: 0.831 MGD
Capacity: 62%

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **June 2020**

TX0124907

		Grab Samples					Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l			TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	Rainfall
	Flow	1.0 - 4.0			<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	Inches
Permit		Plant 1	Plant 2	Plant 3	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	188	38	125	Report	Report	Day
1	0.936	2.91	3.11	3.20	0.02	0.907															1
2	0.901	2.42	2.90	2.88	0.01	0.975	8.7	7.4	2	1.0	0.1	2.0	71	480	296	7.51	0.75	15.03	534	3607	2
3	0.941	2.91	3.81	3.10	0.04	1.093															3
4	1.100	2.70	3.10	2.81	0.02	1.013	7.6	7.6		1.0	0.5	2.0	73	504	302	9.17	4.59	18.35	670	4624	4
5	0.989	2.94	3.72	2.90	0.01	0.895															5
6	0.989	3.15	3.40	3.12	0.02	0.942															6
7	0.933	3.34	3.72	3.30	0.02	1.004															7
8	0.949	3.00	3.11	2.91	0.01	0.909															8
9	0.945	3.54	2.90	3.24	0.02	1.005	7.8	7.6	2	1.0	0.1	2.0	72	468	302	7.88	0.79	15.76	567	3688	9
10	0.995	3.21	3.42	2.80	0.03	0.922															10
11	0.952	3.40	3.79	2.92	0.02	1.055	7.1	7.4		1.0	0.1	2.0	71	424	310	7.94	0.79	15.88	564	3366	11
12	0.961	3.82	2.91	2.92	0.01	0.845															12
13	0.917	3.61	3.12	3.01	0.01	0.886															13
14	0.883	3.69	3.30	3.02	0.02	0.880															14
15	0.901	3.20	3.52	3.41	0.04	0.920															15
16	0.885	3.41	3.10	3.20	0.05	0.884	8.2	7.3	2	1.0	0.1	2.0	73	472	298	7.38	0.74	14.76	539	3484	16
17	0.912	2.92	3.69	3.51	0.03	0.941															17
18	0.955	3.20	3.61	3.12	0.01	0.929	7.9	7.9		1.0	0.1	2.0	71	492	286	7.96	0.80	15.93	565	3919	18
19	0.923	3.12	3.41	3.41	0.02	1.363															19
20	0.923	3.52	3.51	3.51	0.01	0.812															20
21	0.925	3.52	3.51	3.41	0.01	0.708															21
22	0.953	3.11	3.00	3.10	0.02	1.051															22
23	1.039	2.90	3.17	3.73	0.04	1.087	7.7	7.2	2	1.0	0.1	2.0	71	440	300	8.67	0.87	17.33	615	3813	23
24	0.911	3.31	2.81	2.91	0.03	1.149															24
25	1.232	3.12	2.99	2.70	0.01	1.146	8.1	7.9		1.0	0.1	2.0	70	480	300	10.27	1.03	20.55	719	4932	25
26	1.192	3.71	2.93	3.19	0.02	0.857															26
27	1.191	3.52	3.30	3.52	0.01	0.962															27
28	0.964	3.74	3.12	3.30	0.02	1.239															28
29	0.977	3.21	2.90	2.91	0.03	0.709															29
30	0.926	3.52	3.42	3.12	0.02	0.952	7.8	7.6	2	1.0	0.1	2.0	66	504	290	7.72	0.77	15.45	510	3892	30
31																					31
										8.28	**1.24**	**16.56**	**587**	**3925**							
AVG	**0.968**					**0.968**			**2**	**1.00**	**0.14**	**2.00**	**71**	**474**							
MIN	**0.883**	**2.42**				**0.708**	**7.1**	**7.2**	**2**	**1.0**	**0.1**	**2.0**	**66**	**424**		**7.38**	**0.74**	**14.76**	**510**	**3366**	**0.00**
MAX	**1.232**	**3.82**			**0.05**	**1.363**		**7.9**	**2**	**1.0**	**0.5**	**2.0**	**73**	**504**		**10.27**	**4.59**	**20.55**	**719**	**4932**	**2.50**

Total **9.2**

2-Hour Peak Flow, <4,167 GPM:
1,833

Monthly Average Flows								
	01/20	0.827	04/20	0.901	07/19	0.753	10/19	0.792
	02/20	0.807	05/20	0.932	08/19	0.796	11/19	0.801
	03/20	0.853	06/20	0.968	09/19	0.835	12/19	0.795

Annual Average Flow: **0.838**

Reading 6/1/2020 542336
Reading 7/1/2020 571376
# of days 30
Daily Average Flow= **0.968**

Reading 7/1/2019 263704
Reading 7/1/2020 571376
Total:
Annual Average Flow: **0.843 MGD**
Capacity: **65%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **July 2020**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	188	38	125	Report	Report	Day	
1	0.949	3.10	3.81	2.92		0.01	0.927															1	0
2	0.954	3.71	3.73	3.30		0.03	0.894	7.8	7.5		1.0	0.1	2.0	64	476	290	7.96	0.80	15.91	509	3787	2	0
3	0.917	3.52	3.80	3.52		0.02	0.971															3	0
4	0.968	3.41	3.71	3.32		0.02	0.918															4	0
5	0.914	3.49	3.72	3.41		0.03	1.013															5	0
6	0.945	3.50	3.30	2.89		0.01	0.906															6	0
7	0.931	3.21	3.71	3.52		0.02	0.991	8.8	7.6	2	1.0	0.1	2.0	67	524	284	7.76	0.78	15.53	520	4069	7	0
8	0.975	3.83	3.77	3.00		0.01	1.302															8	0
9	0.971	3.92	3.98	3.98		0.05	0.773	8.1	7.4		1.0	0.1	2.0	66	468	302	8.10	0.81	16.20	534	3790	9	0
10	0.995	3.87	3.74	3.79		0.06	1.106															10	0
11	0.930	3.54	3.52	3.61		0.01	0.950															11	0
12	0.978	3.54	3.52	3.51		0.01	0.806															12	0
13	0.994	3.70	3.71	3.10		0.02	0.513															13	0
14	0.639	3.32	3.82	2.92		0.03	1.004	7.8	7.4	2	1.0	0.1	2.0	71	496	304	5.33	0.53	10.66	378	2643	14	0
15	0.957	3.75	3.91	3.11	2.83	0.01	1.111															15	0
16	0.955	3.70	3.69	2.95	3.79	0.01	0.715	7.8	7.8		1.4	0.1	2.0	66	464	292	11.15	0.80	15.93	526	3696	16	0
17	0.919	3.52	3.80	3.80	2.31	0.04	0.950															17	0
18	0.919	3.80	3.73	3.52	1.95	0.02	0.939															18	0
19	0.931	3.72	3.55	3.70	2.23	0.01	0.974															19	0
20	0.967	3.11	3.12	3.82	2.39	0.02	0.954															20	0
21	0.954	3.68	3.80	3.59	2.71	0.01	0.963	8.2	7.4	2	1.0	0.1	2.0	70	452	290	7.96	0.80	15.91	557	3596	21	0
22	0.971	3.85	3.22	3.80	3.30	0.03	0.935															22	0
23	0.919	3.79	3.74	3.41	3.72	0.01	0.957	7.2	7.7		1.0	0.1	2.0	70	460	296	7.66	0.77	15.33	537	3526	23	0.5
24	0.874	3.61	3.75	3.79	3.31	0.03	0.902															24	0
25	0.984	3.70	3.62	3.61	3.79	0.02	0.979															25	0
26	0.976	3.69	3.81	3.70	3.62	0.01	1.187															26	0.7
27	1.211	3.82	3.20	3.30	3.01	0.04	0.988															27	2
28	0.977	3.79	3.72	3.42	3.20	0.01	0.971	7.7	7.4	2	1.0	0.1	2.5	75	484	300	8.15	0.81	20.37	611	3944	28	0
29	0.960	3.42	3.80	3.11	2.92	0.02	0.934															29	0
30	0.937	3.70	3.71	3.20	3.01	0.01	0.911	7.5	7.8		1.0	0.2	2.0	73	472	282	7.81	1.56	15.63	570	3688	30	0
31	0.828	3.22	3.42	3.41	2.87	0.02	1.299															31	0
											7.99	**0.85**	**15.72**	**527**	**3638**								
AVG	**0.959**						**0.959**			**2**	**1.04**	**0.11**	**2.06**	**69**	**477**								
MIN	**0.639**	**1.95**					**0.513**	**7.2**	**7.4**	**2**	**1.0**	**0.1**	**2.0**	**64**	**452**		**5.33**	**0.53**	**10.66**	**378**	**2643**		**0.00**
MAX	**1.211**	**3.98**				**0.06**	**1.302**		**7.8**	**2**	**1.4**	**0.2**	**2.5**	**75**	**524**		**11.15**	**1.56**	**20.37**	**611**	**4069**		**2.00**

2-Hour Peak Flow, <4,167 GPM:
2,833

Monthly Average Flows								
	01/20	0.827	04/20	0.901	07/20	0.959	10/19	0.792
	02/20	0.807	05/20	0.932	08/19	0.796	11/19	0.801
	03/20	0.853	06/20	0.968	09/19	0.835	12/19	0.795
			Annual Average Flow:				**0.856**	

Total 3.2

Reading 7/1/2020 571376
Reading 8/1/2020 601119
# of days 31
Daily Average Flow= **0.959452** **MGD**

Reading 8/1/2019 287999
Reading 8/1/2020 601119
Total:
Annual Average Flow: **0.858** **MGD**
Capacity: **64%**

Plant 4 placed online July 13, 2020.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **August 2020**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	188	38	125	Report	Report	Day	
1	0.945	3.22	3.22	3.51	2.89	0.01	0.923															1	0.4
2	0.932	3.33	3.41	3.32	2.90	0.01	0.602															2	0
3	0.956	3.71	3.70	3.12	3.11	0.03	0.937															3	0
4	0.927	3.42	3.51	2.90	3.48	0.02	0.953	7.8	7.4	2	1.0	0.1	2.0	76	492	300	7.73	0.77	15.46	588	3804	4	0
5	0.957	3.82	3.71	3.01	3.11	0.01	0.916															5	0
6	0.972	3.85	3.79	3.12	3.30	0.02	0.967	7.7	7.8		1.0	0.1	2.0	76	496	312	8.11	0.81	16.21	616	4021	6	0
7	0.882	3.70	3.21	3.40	3.42	0.04	0.799															7	0
8	0.911	3.90	3.52	3.74	3.50	0.02	1.138															8	0
9	0.902	3.52	3.75	3.52	3.32	0.01	0.715															9	0
10	0.933	3.81	3.78	3.11	3.72	0.04	0.891															10	0
11	0.889	3.12	3.21	3.50	3.65	0.05	0.916	7.6	7.3	2	1.0	0.1	2.0	76	524	294	7.41	0.74	14.83	563	3885	11	0
12	0.919	3.72	3.44	3.12	2.91	0.06	0.923															12	0
13	0.915	3.52	3.52	2.91	3.40	0.05	0.869	7.8	7.8		1.0	0.1	2.0	75	480	260	7.63	0.76	15.26	572	3663	13	0
14	0.885	3.62	3.21	3.30	3.02	0.01	0.928															14	0
15	0.886	3.31	3.41	3.12	3.21	0.02	0.881															15	0
16	0.741	3.42	3.33	3.31	3.12	0.02	1.084															16	0
17	0.956	3.72	3.54	3.70	3.40	0.03	0.887															17	0.5
18	1.038	3.33	3.21	3.41	2.91	0.04	1.113	7.6	7.3	2	1.0	0.1	2.0	70	496	316	8.66	0.87	17.31	606	4294	18	0
19	0.974	3.62	3.53	3.52	3.24	0.05	0.841															19	0
20	0.987	3.40	3.81	3.31	3.62	0.01	0.829	7.8	7.9		1.0	0.1	2.0	74	548	290	8.23	0.82	16.46	609	4511	20	0
21	0.832	3.80	3.44	3.42	3.50	0.06	1.208															21	0
22	0.861	3.32	3.33	3.32	3.33	0.01	0.816															22	0
23	0.879	3.31	3.34	3.32	3.31	0.01	0.591															23	0
24	0.880	3.70	3.81	3.70	2.91	0.03	0.867															24	0
25	0.866	3.42	3.60	3.81	3.23	0.01	0.897	7.9	7.3	2	1.0	0.1	2.0	74	444	274	7.22	0.72	14.44	534	3207	25	0
26	0.879	3.80	3.21	3.12	3.72	0.04	1.050															26	0
27	0.978	3.63	3.72	3.10	3.21	0.03	0.803	8.1	7.7		1.0	0.1	2.0	75	428	328	8.16	0.82	16.31	612	3491	27	0
28	0.882	3.31	3.22	3.10	3.44	0.01	0.922															28	0
29	0.882	3.80	3.70	3.52	3.75	0.02	1.247															29	1
30	0.910	3.73	3.52	3.34	3.32	0.01	0.615															30	0
31	0.925	3.41	3.82	3.21	3.82	0.02	0.914															31	0
											7.89	**0.79**	**15.79**	**588**	**3859**								
AVG	**0.905**						**0.905**			**2**	**1.00**	**0.10**	**2.00**	**75**	**489**								
MIN	**0.741**	**2.89**					**0.591**	**7.6**	**7.3**	**2**	**1.0**	**0.1**	**2.0**	**70**	**428**		**7.22**	**0.72**	**14.44**	**534**	**3207**		**0.00**
MAX	**1.038**	**3.90**				**0.06**	**1.247**		**7.9**	**2**	**1.0**	**0.1**	**2.0**	**76**	**548**		**8.66**	**0.87**	**17.31**	**616**	**4511**		**1.00**

2-Hour Peak Flow, <4,167 GPM:
1,611

Monthly Average Flows							
	01/20	0.827	04/20	0.901	07/20	0.959	10/19	0.792
	02/20	0.807	05/20	0.932	08/20	0.905	11/19	0.801
	03/20	0.853	06/20	0.968	09/19	0.835	12/19	0.795
			Annual Average Flow:				**0.865**	

Total **1.9**

Reading 8/1/2020 601119
Reading 9/1/2020 629161
# of days 31
Daily Average Flow= **0.90458**

Reading 9/1/2019 312661
Reading 9/1/2020 629161
Total:
Annual Average Flow: **0.867** **MGD**
Capacity: **0%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **September 2020**

TX0124907

		Grab Samples						Grab Samples		Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	225	45	150	Report	Report	Day	
1	0.879	3.21	3.71	3.02	3.41	0.01	1.027	7.6	7.3	2	1.0	0.1	2.0	74	540	294	7.33	0.73	14.66	542	3959	1	0
2	0.947	3.81	3.40	3.52	3.50	0.03	0.832															2	0
3	0.939	3.41	3.62	3.11	2.87	0.05	0.877	7.4	7.8		1.0	0.1	2.0	74	450	294	7.83	0.78	15.66	580	3524	3	0
4	0.882	3.62	3.71	3.12	3.21	0.01	0.919															4	0
5	0.930	3.51	3.42	3.31	3.09	0.02	0.874															5	1
6	0.881	3.32	3.51	3.22	3.21	0.02	0.864															6	0.1
7	0.872	3.41	3.21	3.00	2.90	0.03	0.971															7	0
8	0.949	3.70	3.82	3.51	3.41	0.01	1.082	7.6	7.8	2	1.0	0.1	2.0	73	524	286	7.91	0.79	15.83	578	4147	8	0
9	0.923	3.84	3.80	3.11	3.50	0.02	1.067															9	0
10	1.039	3.81	3.72	3.42	3.31	0.05	0.721	8.0	7.6		1.0	0.1	2.0	70	556	296	8.67	0.87	17.33	607	4818	10	0.5
11	0.927	3.72	3.61	3.10	3.11	0.04	1.271															11	0
12	0.928	3.52	3.53	3.21	3.11	0.01	0.859															12	0
13	0.906	3.53	3.53	3.51	3.53	0.01	0.687															13	0
14	0.967	2.88	3.40	3.40	3.41	0.05	0.928															14	0
15	0.913	3.41	3.71	3.82	3.12	0.02	0.933	7.8	7.6	2	2.0	0.1	2.0	70	472	302	15.23	0.76	15.23	533	3594	15	0
16	0.939	3.19	3.52	3.72	3.41	0.04	0.885															16	0
17	0.912	3.71	3.34	3.05	3.70	0.01	1.087	7.3	7.6		1.0	0.1	2.0	69	424	294	7.61	0.76	15.21	525	3225	17	0.1
18	0.908	3.20	3.70	3.70	3.23	0.03	0.662															18	0
19	0.908	2.92	3.83	3.90	3.72	0.02	0.849															19	0
20	0.859	3.10	3.92	3.72	3.90	0.03	0.957															20	0
21	0.908	3.71	3.60	3.11	3.82	0.05	0.919															21	0.5
22	0.922	3.11	3.30	2.90	3.11	0.01	1.246	7.4	7.3	2	1.0	0.1	2.0	71	624	292	7.69	0.77	15.38	546	4798	22	1.5
23	1.137	3.70	3.81	3.11	3.40	0.02	0.932															23	2.5
24	1.072	3.41	3.65	3.42	3.14	0.03	1.109	7.7	7.8		1.0	0.1	2.0	73	392	288	8.94	0.89	17.88	653	3505	24	0
25	0.935	3.71	3.70	3.29	3.32	0.02	0.766															25	0
26	0.902	3.19	3.52	3.00	3.41	0.03	0.909															26	0
27	0.910	3.40	3.61	3.39	3.23	0.01	0.983															27	0
28	0.973	3.81	3.84	3.31	3.32	0.05	1.047															28	0.25
29	1.043	3.42	3.41	3.10	3.01	0.04	0.952	9.3	7.5	2	1.0	0.1	2.0	72	460	282	8.70	0.87	17.40	626	4001	29	0
30	1.002	3.15	3.69	3.51	3.40	0.03	0.862															30	0
31	0.863																					31	
											8.88	**0.80**	**16.06**	**577**	**3952**								
AVG	**0.936**						**0.936**			**2**	**1.11**	**0.10**	**2.00**	**72**	**494**								
MIN	**0.859**	**2.87**					**0.662**	**7.3**	**7.3**	**2**	**1.0**	**0.1**	**2.0**	**69**	**392**		**7.33**	**0.73**	**14.66**	**525**	**3225**		**0.00**
MAX	**1.137**	**3.92**				**0.05**	**1.271**		**7.8**	**2**	**2.0**	**0.1**	**2.0**	**74**	**624**		**15.23**	**0.89**	**17.88**	**653**	**4818**		**2.50**

2-Hour Peak Flow, <4,167 GPM:
1,667

Monthly Average Flows								
	01/20	0.827	04/20	0.901	07/20	0.959	10/19	0.792
	02/20	0.807	05/20	0.932	08/20	0.905	11/19	0.801
	03/20	0.853	06/20	0.968	09/20	0.936	12/19	0.795
			Annual Average Flow:				**0.873**	

Total **6.45**

Reading 9/1/2020 629161
Reading 10/1/2020 657238
# of days Total Flow 30
Daily Average Flow= **0.936**

Reading 10/1/2019 337703
Reading 10/1/2020 657238
Annual Average Flow: **0.875** **MGD**
Capacity: **62%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **October 2020**

TX0124907

		Grab Samples					Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	225	45	150	Report	Report	Day	
1	0.863	3.81	3.80	3.70	3.12	0.06	0.918	7.2	7.9		1.0	0.1	2.0	72	400	288	7.20	0.72	14.39	518	2879	1	0
2	0.829	3.32	3.62	3.15	3.68	0.01	0.971															2	0
3	0.790	3.33	3.41	3.32	3.16	0.01	0.775															3	0
4	0.807	3.44	3.33	3.34	3.05	0.01	0.890															4	0
5	0.871	3.21	3.52	3.23	3.24	0.01	0.604															5	0
6	0.863	3.01	3.70	3.50	3.40	0.03	0.859	10.2	7.3	2	1.0	0.1	2.0	70	456	296	7.20	0.72	14.39	504	3282	6	0
7	0.830	3.70	3.32	3.72	3.05	0.05	0.894															7	0
8	0.885	3.43	3.51	3.39	3.20	0.01	0.842	7.4	8.0		1.0	0.1	2.0	77	464	290	7.38	0.74	14.76	568	3425	8	0
9	0.866	3.72	3.40	3.81	3.71	0.02	0.861															9	0
10	0.888	3.50	3.12	3.90	3.62	0.02	0.774															10	0
11	0.724	3.14	2.93	3.82	3.40	0.01	0.935															11	0
12	0.906	3.61	3.52	3.42	3.21	0.05	1.091															12	0
13	0.890	3.10	3.41	3.71	3.72	0.02	0.682	8.2	7.4	2	1.0	0.2	2.0	71	492	288	7.42	1.48	14.85	527	3652	13	0
14	0.884	3.51	3.82	3.43	3.41	0.06	0.884															14	0
15	0.844	3.65	3.73	3.75	3.46	0.01	1.106	8.8	7.7		1.0	0.1	2.0	69	468	300	7.04	0.70	14.08	486	3294	15	0
16	0.897	3.42	3.31	3.61	3.81	0.03	0.636															16	2
17	0.921	3.21	3.42	3.54	3.59	0.02	0.813															17	0
18	0.806	3.29	3.51	3.42	3.51	0.02	0.950															18	0
19	0.907	3.47	3.32	3.30	2.95	0.04	0.964															19	0
20	0.952	3.82	3.44	3.69	3.31	0.02	0.953	7.8	7.3	2	1.0	0.1	2.0	70	456	288	7.94	0.79	15.88	556	3620	20	0.25
21	0.974	3.41	3.11	3.41	3.72	0.01	0.892															21	0
22	0.955	3.22	3.20	3.80	3.41	0.02	1.061	7.5	7.1		1.0	0.1	2.0	69	396	290	7.96	0.80	15.93	550	3154	22	0
23	0.946	3.78	3.71	3.71	3.72	0.04	1.146															23	0
24	0.767	3.42	3.33	3.52	3.53	0.01	0.792															24	0.4
25	0.750	3.51	3.51	3.71	3.62	0.01	0.560															25	0
26	0.873	3.84	3.85	3.12	3.41	0.02	0.904															26	0
27	0.863	3.61	3.31	3.31	3.50	0.02	0.836	8.7	7.5	2	1.5	0.1	2.0	69	432	278	10.80	0.72	14.39	497	3109	27	0
28	0.853	3.90	3.78	3.62	3.09	0.05	0.821															28	0.25
29	0.849	3.82	3.70	3.11	3.30	0.04	0.860	9.2	8.0		1.0	0.1	2.0	73	420	282	7.08	0.71	14.16	517	2974	29	0
30	0.865	3.72	3.35	3.40	3.01	0.01	1.009															30	0
31	0.825	3.50	3.72	3.52	3.34	0.02	0.631															31	0
											7.78	**0.82**	**14.76**	**525**	**3266**								
AVG	**0.868**						**0.868**			**2**	**1.06**	**0.11**	**2.00**	**71**	**443**								
MIN	**0.724**	**2.93**					**0.560**	**7.2**	**7.1**	**2**	**1.0**	**0.1**	**2.0**	**69**	**396**		**7.04**	**0.70**	**14.08**	**486**	**2879**		**0.00**
MAX	**0.974**	**3.90**				**0.06**	**1.146**		**8.0**	**2**	**1.5**	**0.2**	**2.0**	**77**	**492**		**10.80**	**1.48**	**15.93**	**568**	**3652**		**2.00**

2-Hour Peak Flow, <4,167 GPM:
1,333

Monthly Average Flows								
	01/20	0.827	04/20	0.901	07/20	0.959	10/20	0.868
	02/20	0.807	05/20	0.932	08/20	0.905	11/19	0.801
	03/20	0.853	06/20	0.968	09/20	0.936	12/19	0.795
			Annual Average Flow:				**0.879**	

Total **2.9**

Reading 10/1/2020 657238
Reading 11/1/2020 684152
Reading
# of days 31
Daily Average Flow= **0.868**

Reading 11/1/2019 362263
Reading 11/1/2020 684152
Total
Annual Average Flow: **0.882** **MGD**
Capacity: **0%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **November 2020**

TX0124907

		Grab Samples					Grab Samples			Composite Samples													
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit	MGD	Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	225	45	150	Report	Report	Day	
1	0.825	3.90	3.80	3.40	3.22	0.01	0.916															1	0
2	0.855	3.81	3.71	3.11	3.51	0.02	0.842															2	0
3	0.859	3.82	3.61	3.68	3.40	0.06	0.885	8.2	7.5	2	1.0	0.1	2.0	73	500	282	7.16	0.72	14.33	523	3582	3	0
4	0.850	3.71	3.52	3.32	3.32	0.09	0.811															4	0
5	0.829	3.42	3.19	3.51	3.11	0.02	0.828	8.8	7.6		1.0	0.1	2.0	73	604	284	6.91	0.69	13.83	505	4176	5	0
6	0.821	3.82	3.51	3.20	3.52	0.01	0.823															6	0
7	0.851	3.61	3.60	3.42	3.31	0.02	0.844															7	0
8	0.845	3.72	3.41	3.30	3.50	0.02	0.926															8	0
9	0.880	3.81	3.72	3.54	3.36	0.06	0.922															9	0
10	0.898	3.62	3.79	3.36	3.72	0.04	1.047	8.8	7.3	2	1.0	0.1	2.0	73	432	368	7.49	0.75	14.98	547	3235	10	0
11	0.945	3.90	3.62	3.71	3.10	0.01	0.873															11	0
12	0.950	3.81	3.76	3.41	3.71	0.03	0.881	8.7	7.9		1.0	0.1	2.0	72	548	284	7.92	0.79	15.85	570	4342	12	0
13	0.888	3.81	3.72	3.70	3.12	0.01	1.140															13	0
14	0.876	3.52	3.41	3.42	3.13	0.01	0.894															14	0
15	0.889	3.53	3.40	3.41	3.21	0.01	0.555															15	0
16	0.887	3.81	3.82	3.10	3.51	0.02	0.889															16	0
17	0.790	3.72	3.79	3.72	3.33	0.05	1.076	8.8	7.6	2	1.0	0.2	2.0	84	464	288	6.59	1.32	13.18	553	3057	17	0
18	0.916	3.10	3.41	3.83	3.39	0.02	0.705															18	0
19	0.847	3.82	3.70	3.30	3.71	0.03	0.747	9.6	7.8		1.0	0.2	2.0	77	490	282	7.06	1.41	14.13	544	3461	19	0
20	0.848	3.40	3.67	3.21	3.40	0.04	0.845															20	0
21	0.848	3.83	2.92	3.62	3.14	0.02	0.842															21	0
22	0.845	3.64	3.50	3.40	3.70	0.03	0.864															22	0
23	0.838	3.44	3.44	3.22	3.35	0.05	0.829	8.2	7.7	2	1.0	0.1	2.0	72	448	284	6.99	0.70	13.98	503	3131	23	0
24	0.826	3.52	3.62	3.51	3.79	0.05	0.928	8.2	7.3		1.0	0.1	2.0	70	424	280	6.89	0.69	13.78	482	2921	24	0
25	0.910	3.43	3.71	3.70	3.72	0.02	0.868															25	0
26	0.898	3.74	3.52	3.82	3.10	0.01	0.920															26	0
27	0.898	3.52	3.74	3.70	3.53	0.02	0.918															27	0
28	0.895	3.42	3.63	3.71	3.60	0.02	1.279															28	0
29	0.949	3.51	3.42	3.82	3.51	0.02	0.644															29	0.9
30	0.942	3.80	3.71	3.60	3.12	0.05	0.915															30	0
31	0.899																					31	
											7.13	**0.88**	**14.26**	**528**	**3488**								
AVG	**0.882**						**0.882**			**2**	**1.00**	**0.13**	**2.00**	**74**	**489**								
MIN	**0.790**	**2.92**					**0.555**	**8.2**	**7.3**	**2**	**1.0**	**0.1**	**2.0**	**70**	**424**		**6.59**	**0.69**	**13.18**	**482**	**2921**		**0.00**
MAX	**0.950**	**3.90**				**0.09**	**1.279**		**7.9**	**2**	**1.0**	**0.2**	**2.0**	**84**	**604**		**7.92**	**1.41**	**15.85**	**570**	**4342**		**0.90**

2-Hour Peak Flow, <4,167 GPM:
1,292

Monthly Average Flows							
	01/20	0.827	04/20	0.901	07/20	0.959	10/20	0.868
	02/20	0.807	05/20	0.932	08/20	0.905	11/20	0.882
	03/20	0.853	06/20	0.968	09/20	0.936	12/19	0.795

Annual Average Flow: **0.886**

Reading 12/1/2019 386289
Reading 12/1/2020 710608
Total

Annual Average Flow: **0.889** **MGD**
Capacity: **49%**

Total **0.9**

Reading 11/1/2020 684152
Reading 12/1/2020 710608
# of days 30
Daily Average Flow= **0.8819**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **December** **2020**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	Report	NA	225	45	150	Report	Report	Day	
1	0.899	3.85	3.81	3.22	3.73	0.03	0.948	8.2	7.6	10	1.0	0.1	2.0	71	472	276	7.50	0.75	15.00	532	3539	1	0
2	0.917	3.70	3.52	3.31	3.44	0.01	1.031															2	1
3	1.014	3.79	3.40	3.71	3.31	0.02	0.862	8.3	7.9		1.0	0.2	2.0	71	436	282	8.46	1.69	16.91	600	3687	3	0.5
4	0.924	3.71	3.71	3.20	3.72	0.03	0.835															4	0
5	0.640	3.60	3.52	3.41	3.11	0.02	1.164															5	0
6	0.859	3.60	3.52	3.41	3.02	0.02	0.619															6	0
7	0.889	3.01	3.57	3.50	3.72	0.03	0.900															7	0
8	0.893	3.13	3.29	3.82	3.40	0.01	0.936	8.2	7.3	15	1.0	0.1	2.0	66	456	288	7.45	0.74	14.90	492	3396	8	0
9	0.881	3.32	3.70	3.41	3.52	0.02	0.808															9	0
10	0.859	3.11	3.41	3.60	3.30	0.04	0.872	7.1	7.4		1.0	0.1	2.0	69	432	290	7.16	0.72	14.33	494	3095	10	0
11	0.869	3.44	3.52	3.31	3.63	0.01	0.815															11	0
12	0.884	3.72	3.40	3.70	3.52	0.02	0.846															12	0.5
13	0.866	3.50	3.13	3.52	3.70	0.01	0.933															13	0
14	0.860	3.82	2.31	3.11	3.81	0.03	0.861															14	0.5
15	0.832	3.73	3.73	3.40	3.73	0.01	0.997	8.9	8.0	4	1.0	0.1	2.0	69	488	288	6.94	0.69	13.88	479	3386	15	0.25
16	0.869	3.81	3.40	3.62	3.40	0.02	0.719															16	0
17	0.869	3.64	3.71	3.20	3.65	0.01	0.966	8.8	7.8		1.0	0.1	2.0	68	424	296	7.25	0.72	14.49	493	3073	17	0
18	0.921	3.72	3.62	3.51	3.31	0.01	0.888															18	0
19	0.909	3.81	3.69	3.32	3.42	0.02	0.951															19	0
20	0.952	3.63	3.51	3.42	3.53	0.01	0.880															20	1.1
21	0.861	3.54	3.40	3.71	3.51	0.02	0.922	9.2	7.6		1.0	0.1	2.0	71	484	298	7.18	0.72	14.36	510	3475	21	0
22	0.861	3.72	3.82	3.50	3.70	0.03	0.984	8.2	7.6	2	1.0	0.1	2.0	69	460	312	7.18	0.72	14.36	495	3303	22	0
23	0.909	3.90	3.75	3.41	3.42	0.04	0.882															23	0
24	0.909	3.74	3.53	3.12	3.70	0.02	0.934															24	0.25
25	0.884	3.90	3.84	3.70	3.52	0.02	1.205															25	0
26	0.955	3.61	3.72	3.61	3.52	0.03	0.861															26	0
27	0.862	3.71	3.72	3.59	3.62	0.03	0.799															27	0
28	0.878	3.32	3.64	3.71	3.82	0.03	0.814															28	0
29	0.921	3.55	3.43	3.81	3.74	0.04	0.836	8.6	8.0	2	1.0	0.1	2.0	71	486	308	7.68	0.77	15.36	545	3733	29	0
30	0.978	3.38	3.67	3.85	3.67	0.02	1.070															30	0
31	0.978	3.48	3.77	3.49	3.54	0.05	1.006	7.9	7.9		1.6	3.2	2.0	160	688	302	13.05	26.10	16.31	1305	5612	31	1.2
											7.98	**3.36**	**14.99**	**595**	**3630**								
AVG	**0.908**						**0.908**			**5**	**1.06**	**0.42**	**2.00**	**79**	**483**								
MIN	**0.640**	**2.31**					**0.619**	**7.1**	**7.3**	**2**	**1.0**	**0.1**	**2.0**	**66**	**424**		**6.94**	**0.69**	**13.88**	**479**	**3073**		**0.00**
MAX	**1.014**	**3.90**				**0.05**	**1.205**		**8.0**	**15**	**1.6**	**3.2**	**2.0**	**160**	**688**		**13.05**	**26.10**	**16.91**	**1305**	**5612**		**1.20**

2-Hour Peak Flow, <4,167 GPM:
1,500

Monthly Average Flows								
	01/20	0.827	04/20	0.901	07/20	0.959	10/20	0.868
	02/20	0.807	05/20	0.932	08/20	0.905	11/20	0.882
	03/20	0.853	06/20	0.968	09/20	0.936	12/20	0.908
			Annual Average Flow:				**0.896**	

Total **5.3**

Reading 12/1/2020 710608
Reading 1/1/2020 738752
# of days 31
Daily Average Flow= **0.9079**

Reading 1/1/2020 410946
Reading 1/1/2020 738752
Total
Annual Average Flow: **0.898** **MGD**
Capacity: **0%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM I PHASE **January 2021**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.752	3.74	3.53	3.70	3.82	0.02	0.860															1	0.5
2	0.768	3.64	3.72	3.83	3.60	0.03	1.264															2	0
3	0.792	3.72	3.84	3.55	3.44	0.02	0.733															3	0
4	0.899	3.51	3.09	3.10	3.71	0.05	0.796															4	0
5	0.890	3.40	3.75	3.31	3.82	0.04	1.000	8.7	7.9	2	1.0	0.5	2.0	77	476	294	7.42	3.71	14.85	572	3533	5	0
6	0.925	3.81	3.72	3.42	3.58	0.01	0.908															6	0
7	1.000	3.72	3.80	3.10	3.30	0.03	0.866	8.4	8.0		1.0	0.1	2.0	70	428	306	8.34	0.83	16.68	584	3570	7	0.5
8	0.860	3.80	3.42	3.42	3.65	0.05	0.988															8	0
9	0.901	3.71	3.50	3.31	3.39	0.03	0.988															9	0
10	0.957	3.62	3.71	3.42	3.70	0.02	0.937															10	0.5
11	1.032	3.63	3.62	3.30	3.61	0.03	0.931															11	0.75
12	0.960	3.71	3.73	3.81	3.42	0.02	1.085	8.5	8.1	2	1.0	0.1	2.0	64	436	316	8.01	0.80	16.01	512	3491	12	0
13	0.921	3.86	3.12	3.41	3.33	0.04	0.723															13	0
14	0.889	1.69	3.61	3.80	3.71	0.05	0.964	8.0	7.8		1.0	0.1	2.0	69	532	294	7.41	0.74	14.83	512	3944	14	0
15	0.885	1.97	3.40	3.52	3.18	0.02	1.066															15	0
16	0.851	2.03	3.22	3.42	3.10	0.02	0.861															16	0
17	0.868	2.22	3.32	3.42	3.21	0.03	0.587															17	0
18	0.885	1.31	3.38	3.60	3.52	0.05	0.895															18	0
19	0.881	1.47	2.81	2.91	3.60	0.03	0.951	8.6	7.9	2	1.0	0.1	2.0	71	440	296	7.35	0.73	14.70	522	3233	19	0
20	0.911	1.39	3.39	3.81	3.41	0.02	0.841															20	0
21	0.885	2.02	3.32	3.50	3.22	0.01	0.943	8.3	7.6		1.0	0.1	2.0	72	428	284	7.38	0.74	14.76	531	3159	21	0
22	0.889	2.29	3.51	3.72	3.31	0.06	0.787															22	0
23	0.889	2.64	3.42	3.70	3.53	0.03	0.884															23	0
24	0.888	2.42	3.13	3.82	3.71	0.02	0.969															24	0
25	0.922	3.13	3.20	3.20	3.29	0.01	0.872															25	0
26	0.893	3.72	3.52	3.45	3.12	0.03	0.893	8.6	8.0	2	1.0	0.1	2.0	71	452	290	7.45	0.74	14.90	529	3366	26	0
27	0.878	3.34	3.73	3.40	3.51	0.04	0.884															27	0
28	0.893	3.01	3.81	3.28	3.29	0.03	0.876	9.4	7.8		1.0	0.1	2.0	71	444	290	7.45	0.74	14.90	529	3307	28	0
29	0.871	2.79	3.64	3.60	3.81	0.06	0.852															29	0
30	0.893	2.91	3.72	3.49	3.60	0.03	0.884															30	0
31	0.878	3.20	3.63	3.31	3.52	0.03	0.977															31	0
											7.60	**1.13**	**15.20**	**536**	**3450**								
AVG	**0.905**						**0.905**			**2**	**1.00**	**0.15**	**2.00**	**71**	**455**	**296**							
MIN	**0.752**	**1.31**				**0.01**	**0.587**	**8.6**	**7.9**	**2**	**1.0**	**0.1**	**2.0**	**64**	**428**	**284**	**7.35**	**0.73**	**14.70**	**512**	**3159**		**0.00**
MAX	**1.032**	**3.86**				**0.06**	**1.264**		**7.6**	**2**	**1.0**	**0.5**	**2.0**	**77**	**532**	**316**	**8.34**	**3.71**	**16.68**	**584**	**3944**		**0.75**

2-Hour Peak Flow, <5,000 GPM:
1,375

Monthly Average Flows								
	01/21	0.905	04/20	0.901	07/20	0.959	10/20	0.868
	02/20	0.807	05/20	0.932	08/20	0.905	11/20	0.882
	03/20	0.853	06/20	0.968	09/20	0.936	12/20	0.908
			Annual Average Flow:				**0.902**	

Total **2.25**

Reading 1/1/2021 738752
Reading 2/1/2021 766817
# of days 31
Daily Average Flow= **0.9053** **MGD**

Reading 2/1/2020 436574
Reading 2/1/2021 766817
Total
Annual Average Flow: **0.905 MGD**
Capacity: **50%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY — **February 2021**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	Report	Day	
1	0.925	1.32	3.79	3.71	3.22	0.06	0.886															1	0
2	1.000	3.80	3.70	3.39	3.61	0.05	0.931	8.6	8.0		1.0	0.1	2.0	70	448	276	8.34	0.83	16.68	584	3736	2	0
3	0.860	2.92	3.51	3.72	3.41	0.03	0.839															3	0
4	0.901	3.79	3.72	3.51	3.50	0.04	0.881	8.6	7.7	2	1.1	0.5	2.7	158	740	272	8.27	3.76	20.29	1187	5561	4	0
5	0.957	2.91	3.62	3.25	3.42	0.02	1.220															5	0
6	1.032	3.22	3.43	3.29	3.42	0.01	0.901															6	0
7	0.960	3.13	3.42	3.08	3.41	0.01	0.578															7	0
8	0.922	2.08	3.72	3.20	3.60	0.02	0.976															8	0
9	0.889	2.31	3.50	3.41	3.22	0.04	1.235	8.6	7.5		1.0	0.1	2.2	63	472	292	7.41	0.74	16.31	467	3500	9	0
10	0.888	2.19	3.75	3.50	3.72	0.01	0.992			2												10	0
11	0.851	3.43	3.59	3.71	3.41	0.03	0.700	9.1	7.7		1.7	0.1	3.8	148	752	282	12.07	0.71	26.97	1050	5337	11	0.5
12	0.868	3.81	3.81	3.42	3.82	0.02	0.825															12	0.5
13	0.868	3.60	3.52	3.60	3.53	0.01	0.853															13	0
14	0.778	3.33	3.60	3.69	3.45	0.02	0.878															14	0.25
15	0.793	3.41	3.61	3.50	3.42	0.02	1.601															15	0.2
16	1.146	3.10	3.12	3.09	3.30	0.01	2.389															16	0.2
17	1.197	1.91	3.41	3.41	3.21	0.02	1.310															17	1
18	1.847	1.93	1.99	3.71	3.82	0.03	1.527															18	0.5
19	1.541	2.82	3.81	3.22	3.32	0.08	1.370															19	0
20	1.541	3.14	3.70	3.53	3.70	0.02	1.145															20	0
21	1.534	2.93	3.52	3.32	3.53	0.03	0.998															21	0
22	0.977	1.48	3.63	3.85	3.12	0.01	1.012															22	0
23	0.943	1.91	3.40	3.40	3.51	0.02	0.961	6.9	7.5	5	1.5	0.1	2.0	69	488	288	11.80	0.79	15.73	543	3838	23	0
24	0.967	1.80	3.71	3.52	3.40	0.06	1.210															24	0
25	0.986	1.53	3.49	3.71	3.12	0.08	0.741	8.2	7.4		1.0	0.1	2.7	74	452	268	8.22	0.82	22.20	609	3717	25	0
26	0.986	3.71	3.83	3.11	3.19	0.02	1.329															26	0
27	0.993	3.03	3.72	3.32	3.31	0.01	0.972															27	0
28	0.993	3.12	3.62	3.20	3.13	0.01	0.916															28	0
29																						29	
30																						30	
31																						31	
											9.35	**1.28**	**19.70**	**740**	**4281**								
AVG	**1.078**						**1.078**			**3**	**1.22**	**0.17**	**2.57**	**97**	**559**								
MIN	**0.778**	**1.32**					**0.578**	**6.9**	**7.4**	**2**	**1.0**	**0.1**	**2.0**	**63**	**448**		**7.41**	**0.71**	**15.73**	**467**	**3500**		**0.00**
MAX	**1.847**	**3.85**				**0.08**	**2.389**		**8.0**	**5**	**1.7**	**0.5**	**3.8**	**158**	**752**		**12.07**	**3.76**	**26.97**	**1187**	**5561**		**1.00**

Total **3.15**

2-Hour Peak Flow, <5,000 GPM:
2,083

Monthly Average Flows								
	01/21	0.905	04/20	0.901	07/20	0.959	10/20	0.868
	02/21	1.078	05/20	0.932	08/20	0.905	11/20	0.882
	03/20	0.853	06/20	0.968	09/20	0.936	12/20	0.908
			Annual Average Flow:				**0.925**	

Reading 2/1/2021 766817
Reading 3/1/2021 796993

29
# of days 28
Daily Average Flow= **1.077714**

Reading 3/1/2020 459969
Reading 3/1/2021 796993
Total
Annual Average Flow: **0.923 MGD**
Capacity: **60%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **March 2021**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.978	2.21	3.49	3.61	3.53	0.02	0.788															1	0.25
2	0.956	3.66	3.44	3.74	2.50	0.01	0.932	8.5	7.5	2	1.0	0.1	2.0	74	444	276	7.97	0.80	15.95	590	3540	2	0
3	0.925	3.53	3.73	3.42	2.71	0.03	1.048															3	0
4	0.964	3.69	3.31	3.71	3.06	0.02	0.836	8.6	7.7		1.0	0.1	2.0	70	472	244	8.04	0.80	16.08	563	3795	4	0
5	0.931	3.12	3.40	3.05	3.21	0.01	0.877															5	0
6	0.931	3.44	3.72	3.30	3.52	0.02	0.938															6	0
7	0.949	3.35	3.80	3.52	3.34	0.01	1.109															7	0
8	0.982	3.53	3.39	2.22	3.41	0.03	1.343															8	0
9	0.986	3.79	3.56	3.60	3.15	0.01	0.738	8.3	7.4	1	1.0	0.1	2.0	70	492	290	8.22	0.82	16.45	576	4046	9	0
10	1.010	3.65	3.32	3.31	2.92	0.05	1.033															10	0
11	0.991	3.31	3.00	3.19	3.45	0.05	1.133	8.7	8.3		1.0	0.1	2.0	69	484	304	8.26	0.83	16.53	570	4000	11	0
12	1.018	3.10	3.71	3.31	3.21	0.02	0.676															12	0
13	1.005	3.22	3.49	3.12	3.32	0.03	0.923															13	0
14	0.949	3.31	3.43	3.11	3.11	0.02	1.122															14	0
15	0.925	3.14	3.66	3.22	3.40	0.01	0.886															15	0
16	0.841	3.61	3.52	3.03	3.21	0.02	0.943	7.7	7.4	77	1.8	2.0	2.0	157	720	280	12.63	14.03	14.03	1101	5050	16	0
17	0.552	3.20	3.76	2.80	3.49	0.03	0.842															17	0
18	0.886	3.69	3.81	3.66	3.43	0.01	0.628	8.8	7.5		2.0	0.2	2.1	148	756	276	14.78	1.48	15.52	1094	5586	18	0
19	0.827	3.04	3.44	3.71	2.51	0.01	1.146															19	0
20	0.809	3.32	3.33	3.04	3.00	0.03	0.867															20	0
21	0.957	3.41	3.22	2.82	3.01	0.04	0.902															21	0
22	0.951	3.62	3.84	3.10	2.79	0.02	1.201															22	0
23	1.001	3.73	2.90	2.88	2.90	0.00	0.817	7.9	7.6	12	3.3	0.3	4.5	150	772	310	27.55	2.50	37.57	1252	6445	23	0
24	1.000	3.51	3.81	2.79	3.10	0.00	1.126															24	0
25	1.545	3.29	3.70	2.91	2.98	0.05	0.912	7.2	7.6		3.0	0.1	3.2	145	680	306	38.66	1.29	41.23	1868	8762	25	0
26	1.515	3.12	3.53	3.13	3.07	0.00	0.597															26	0
27	0.946	1.85	3.34	2.82	2.91	0.01	0.985															27	0
28	0.984	2.03	3.42	3.00	2.99	0.01	1.382															28	0
29	0.998	1.44	3.74	2.80	2.82	0.03	0.696															29	0
30	0.975	3.62	3.61	2.51	2.21	0.02	1.231	8.6	7.6	2	2.7	1.1	2.4	148	760	314	21.96	8.94	19.52	1203	6180	30	0
31	1.005	3.73	3.50	2.70	3.74	0.03	1.211															31	0
											16.45	**3.50**	**21.43**	**980**	**5267**								
AVG	**0.963**						**0.963**			**5**	**1.87**	**0.46**	**2.47**	**115**	**620**								
MIN	**0.552**	**1.44**					**0.597**	**7.2**	**7.4**	**1**	**1.0**	**0.1**	**2.0**	**69**	**444**		**7.97**	**0.80**	**14.03**	**563**	**3540**		**0.00**
MAX	**1.545**	**3.84**				**0.05**	**1.382**		**8.3**	**77**	**3.3**	**2.0**	**4.5**	**157**	**772**		**38.66**	**14.03**	**41.23**	**1868**	**8762**		**0.25**

2-Hour Peak Flow, <5,000 GPM:
1,333

Monthly Average Flows								
	01/21	0.905	04/20	0.901	07/20	0.959	10/20	0.868
	02/21	1.078	05/20	0.932	08/20	0.905	11/20	0.882
	03/21	0.963	06/20	0.968	09/20	0.936	12/20	0.908
			Annual Average Flow:					**0.934**

Total **0.25**

Reading 3/1/2021 796993
Reading 4/1/2021 826861
# of days 31
Daily Average Flow= **0.963**

Reading 4/1/2020 486401
Reading 4/1/2021 826861
Annual Average Flow: **0.933 MGD**
Capacity: **54%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **April 2021**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	1.085	2.02	3.51	2.93	2.59	0.04	0.529	8.8	7.8		2.3	0.1	2.5	88	556	272	20.81	0.90	22.62	796	5031	1	0
2	1.085	2.24	3.70	3.12	2.93	0.02	1.132															2	0
3	0.948	2.12	3.32	2.94	2.71	0.03	0.966															3	0
4	0.948	1.95	3.14	2.70	3.13	0.02	0.888															4	0
5	1.008	1.31	3.76	2.79	2.91	0.04	1.347															5	0
6	0.955	2.21	3.42	2.61	2.99	0.05	0.946	8.4	7.7		1.6	0.9	2.0	88	532	292	12.74	7.17	15.93	701	4237	6	0
7	0.589	1.67	3.86	2.38	3.07	0.04	1.003															7	0
8	0.889	2.34	3.65	2.97	3.20	0.05	0.712	8.0	7.6	2	1.4	0.8	2.9	84	608	322	10.38	5.93	21.50	623	4508	8	0
9	0.809	2.25	3.76	2.95	3.00	0.03	0.977															9	0
10	0.876	2.24	3.53	2.49	2.81	0.01	0.972															10	0
11	0.825	2.33	3.44	2.03	2.59	0.02	1.205															11	0
12	0.854	2.11	3.66	2.25	2.71	0.03	1.175															12	0
13	0.916	1.85	3.14	2.12	2.10	0.02	0.651	8.1	7.6		1.9	1.3	2.0	84	524	324	14.51	9.93	15.28	642	4003	13	0
14	0.800	2.04	3.25	2.29	2.31	0.04	0.945															14	0
15	0.920	2.32	3.33	2.41	2.69	0.03	1.022	8.8	7.6	2	2.6	1.0	2.0	82	572	316	19.95	7.67	15.35	629	4389	15	0.1
16	0.932	2.11	3.43	2.60	2.82	0.04	1.270															16	0.6
17	0.871	2.22	3.22	2.70	2.62	0.01	0.877															17	1
18	0.731	2.42	3.31	2.63	2.81	0.01	1.233															18	0
19	0.971	2.53	3.49	2.54	2.30	0.03	0.513															19	0
20	0.906	2.41	2.90	2.22	2.39	0.02	1.168	8.7	7.5	6	1.0	0.3	2.0	74	488	296	7.56	2.27	15.11	559	3687	20	0
21	0.780	2.60	3.02	2.41	2.10	0.04	1.176															21	0
22	0.903	2.81	2.91	2.13	2.28	0.02	0.603	8.7	7.3		1.3	0.5	2.0	85	532	294	9.79	3.77	15.06	640	4007	22	0
23	0.833	2.59	3.28	1.19	1.90	0.03	1.239															23	0
24	0.848	2.92	3.50	2.52	2.34	0.02	0.680															24	0
25	0.758	2.70	3.31	3.70	2.92	0.03	1.307															25	0
26	0.908	2.41	2.65	3.48	3.10	0.07	0.867															26	0
27	0.881	2.90	3.03	2.60	2.84	0.05	1.144	7.4	7.6		1.0	0.3	2.1	75	524	322	7.35	2.20	15.43	551	3850	27	0
28	0.934	3.02	2.92	2.38	2.93	0.03	0.770															28	0
29	0.847	2.74	2.84	2.51	2.71	0.04	1.585	8.7	7.8	53	1.6	0.5	2.4	81	544	314	11.30	3.53	16.95	572	3843	29	0
30	0.875	2.65	1.95	1.19	1.62	0.00	1.029															30	4.6
31																						31	
											12.71	**4.82**	**17.03**	**635**	**4173**								
AVG	**0.998**						**0.998**			**6**	**1.63**	**0.63**	**2.21**	**82**	**542**								
MIN	**0.589**	**1.19**					**0.513**	**7.4**	**7.3**	**2**	**1.0**	**0.1**	**2.0**	**74**	**488**		**7.35**	**0.90**	**15.06**	**551**	**3687**		**0.00**
MAX	**1.085**	**3.86**				**0.07**	**1.585**		**7.8**	**53**	**2.6**	**1.3**	**2.9**	**88**	**608**		**20.81**	**9.93**	**22.62**	**796**	**5031**		**4.60**

2-Hour Peak Flow, <5,000 GPM:
2,430

Monthly Average Flows								
	01/21	0.905	04/21	0.998	07/20	0.959	10/20	0.868
	02/21	1.078	05/20	0.932	08/20	0.905	11/20	0.882
	03/21	0.963	06/20	0.968	09/20	0.936	12/20	0.908
			Annual Average Flow:					**0.942**

Total **6.3**

Reading ###### 826861
Reading ###### 856792
# of days 30
Daily Average Flow= **0.9977**

Reading 5/1/2020 513441
Reading 5/1/2021 856792
Annual Average Flow: **0.941 MGD**
Capacity: **55%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **May 2021**

TX0124907	Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.990	2.53	2.05	1.40	1.74	0.01	1.136															1	2.6
2	0.842	2.72	2.24	1.82	1.92	0.01	1.321															2	0.5
3	0.997	2.66	2.33	1.93	2.33	0.03	1.207															3	0
4	1.061	2.43	2.01	2.37	2.25	0.04	0.999	7.1	7.4		1.5	0.7	2.0	85	496	304	13.27	6.19	17.70	752	4389	4	0.15
5	0.858	2.55	2.15	2.28	2.44	0.02	0.651															5	0
6	0.887	2.55	1.95	2.06	1.90	0.05	1.293	8.5	7.8	1	6.6	0.4	3.0	79	468	442	48.82	2.96	22.19	584	3462	6	0
7	1.026	2.43	2.06	2.17	2.35	0.03	0.746															7	0
8	1.011	2.52	2.15	2.25	2.34	0.01	1.028															8	0
9	1.003	2.44	2.25	2.04	2.33	0.01	1.348															9	0
10	1.089	2.33	2.44	2.43	2.52	0.03	0.778															10	0
11	1.025	2.16	2.37	2.82	2.91	0.04	1.387	6.5	7.5		1.0	1.2	2.0	95	552	286	8.55	10.26	17.10	812	4719	11	0
12	1.139	2.24	2.25	2.13	2.18	0.05	1.014															12	0.25
13	1.041	2.02	2.42	2.35	2.03	0.04	1.892	8.4	7.5	2	1.3	0.8	2.0	83	444	296	11.29	6.95	17.36	721	3855	13	0
14	0.979	2.16	2.33	2.24	1.81	0.02	0.000															14	0
15	0.992	2.33	2.75	2.92	2.21	0.03	0.997															15	0
16	0.993	2.70	2.53	2.75	2.52	0.02	1.088															16	0
17	1.013	1.94	2.05	2.84	2.34	0.03	1.418															17	0
18	0.934	1.83	1.92	3.02	2.22	0.02	1.754	7.0	7.6	2420	1.2	1.0	2.0	89	548	358	9.35	7.79	15.58	693	4269	18	4.5
19	1.501	2.02	2.11	2.76	2.05	0.03	1.075															19	3
20	0.979	2.51	2.45	2.94	2.60	0.04	1.019	7.5	7.9		2.0	3.2	2.0	120	588	274	16.33	26.13	16.33	980	4801	20	0.25
21	1.042	2.43	2.52	2.83	2.74	0.03	0.807															21	0
22	1.106	2.34	2.53	2.92	2.23	0.02	1.116															22	0
23	0.878	2.52	2.41	2.34	2.42	0.03	1.763															23	0.75
24	1.112	2.52	2.62	2.56	2.35	0.02	1.256															24	3.25
25	1.047	2.73	2.53	2.73	2.64	0.07	0.761	7.1	7.0		1.4	0.2	2.8	79	528	302	12.22	1.75	24.45	690	4610	25	1.5
26	0.882	2.43	2.36	2.81	2.72	0.05	1.412															26	0.6
27	1.034	2.51	2.23	2.59	2.36	0.04	1.242	7.9	7.5	1	8.9	1.7	3.8	135	660	252	76.75	14.66	32.77	1164	5692	27	0
28	1.046	2.35	2.45	2.30	2.45	0.03	0.637															28	0
29	0.887	2.15	2.14	2.40	2.54	0.01	0.939															29	0.4
30	0.814	2.33	2.34	2.51	2.24	0.01	0.989															30	0
31	0.831	2.22	2.24	2.41	2.44	0.01	1.474															31	0
											24.57	**9.59**	**20.43**	**800**	**4475**								
AVG	**1.108**						**1.114**			**8**	**2.99**	**1.15**	**2.45**	**96**	**536**								
MIN	**0.814**	**1.40**					**0.000**	**6.5**	**7.0**	**1**	**1.0**	**0.2**	**2.0**	**79**	**444**		**8.55**	**1.75**	**15.58**	**584**	**3462**		**0.00**
MAX	**1.501**	**3.02**				**0.07**	**1.892**		**7.9**	**2420**	**8.9**	**3.2**	**3.8**	**135**	**660**		**76.75**	**26.13**	**32.77**	**1164**	**5692**		**4.50**

2-Hour Peak Flow, <5,000 GPM:
2,083

Monthly Average Flows								
	01/21	0.905	04/21	0.998	07/20	0.959	10/20	0.868
	02/21	1.078	05/21	1.108	08/20	0.905	11/20	0.882
	03/21	0.963	06/20	0.968	09/20	0.936	12/20	0.908
			Annual Average Flow:				**0.957**	

Total **17.75**

Reading	5/1/2021	856792	
Reading	6/1/2021	891148	
# of days			31
Daily Average Flow=		**1.108258**	

Reading	6/1/2020	542336
Reading	6/1/2021	891148
Annual Average Flow:		**0.956 MGD**
Capacity:		**62%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **June 2021**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day
1	0.982	1.95	2.06	1.94	1.72	0.02	0.897	7.5	7.6	268	1.1	0.3	2.2	76	528	288	9.01	2.46	18.02	622	4324	1
2	0.886	1.56	1.95	1.85	1.93	0.03	1.220															2
3	1.015	1.64	2.03	1.17	2.66	0.01	1.268	8.2	7.8		1.0	0.3	2.2	79	508	300	8.47	2.54	18.62	669	4300	3
4	1.208	2.21	2.71	1.84	3.41	0.02	0.726															4
5	1.208	2.93	3.12	3.70	2.44	0.03	1.154															5
6	1.144	2.64	2.83	3.32	2.90	0.02	1.233															6
7	1.042	1.84	2.55	3.93	3.81	0.04	0.998															7
8	1.092	1.91	2.02	3.90	2.07	0.05	1.196	6.4	7.6	11	1.2	0.2	3.4	129	652	296	10.93	1.82	30.96	1175	5938	8
9	0.899	2.00	1.94	3.58	2.95	0.04	1.214															9
10	0.890	1.93	2.13	3.79	3.84	0.01	1.026	7.3	7.8		3.0	1.4	2.0	121	624	282	22.27	10.39	14.85	898	4632	10
11	0.875	1.89	2.01	3.60	3.53	0.02	0.691															11
12	0.873	1.92	2.13	3.69	3.81	0.03	1.021															12
13	0.909	2.03	2.12	3.80	3.72	0.02	1.347															13
14	0.962	2.21	2.01	3.58	3.90	0.03	1.055															14
15	0.900	1.99	2.20	3.81	3.78	0.04	0.931	7.0	7.6	1	2.8	0.8	2.9	147	652	290	21.02	6.00	21.77	1103	4894	15
16	0.981	2.14	2.04	3.60	3.69	0.02	1.119															16
17	0.926	1.91	2.12	3.69	3.82	0.03	1.000	7.8	7.8		1.6	0.7	2.8	117	608	286	12.36	5.41	21.62	904	4695	17
18	0.856	2.21	2.30	3.78	3.90	0.05	0.731															18
19	0.840	2.32	2.12	3.70	3.72	0.03	0.995															19
20	0.831	2.23	2.21	3.69	3.61	0.03	1.073															20
21	0.860	2.42	2.43	3.80	3.82	0.04	1.249															21
22	0.906	2.21	2.63	3.61	3.74	0.05	1.216	6.7	7.6	2	2.0	0.9	4.7	124	616	294	15.11	6.80	35.51	937	4655	22
23	0.993	2.69	2.91	3.78	3.62	0.06	1.028															23
24	0.965	2.21	2.72	3.12	3.41	0.02	0.781	7.8	7.7		1.0	0.9	3.6	121	676	236	8.05	7.24	28.97	974	5441	24
25	0.850	2.40	2.18	3.50	3.69	0.01	0.969															25
26	0.936	2.92	2.64	3.73	3.42	0.02	1.028															26
27	0.924	2.74	2.93	3.52	3.64	0.03	1.231															27
28	0.785	3.35	3.31	3.61	3.82	0.03	1.207															28
29	0.980	2.73	3.03	3.10	3.26	0.05	0.755	7.1	7.7	2	4.0	1.4	7.6	160	680	274	32.69	11.44	62.12	1308	5558	29
30	0.820	2.80	2.95	3.53	3.54	0.03	1.311															30
31																						31
											15.54	**6.01**	**28.05**	**954**	**4937**							
AVG	**1.056**						**1.056**			**7**	**1.97**	**0.77**	**3.49**	**119**	**616**							
MIN	**0.785**	**1.17**					**0.691**	**6.4**	**7.6**	**1**	**1.0**	**0.2**	**2.0**	**76**	**508**		**8.05**	**1.82**	**14.85**	**622**	**4300**	
MAX	**1.208**	**3.93**				**0.06**	**1.347**		**7.8**	**268**	**4.0**	**1.4**	**7.6**	**160**	**680**		**32.69**	**11.44**	**62.12**	**1308**	**5938**	

2-Hour Peak Flow, <5,000 GPM:
1,215

Monthly Average Flows								
	01/21	0.905	04/21	0.998	07/20	0.959	10/20	0.868
	02/21	1.078	05/21	1.108	08/20	0.905	11/20	0.882
	03/21	0.963	06/21	1.056	09/20	0.936	12/20	0.908
			Annual Average Flow:					**0.964**

Total

Reading 6/1/2021 891148
Reading 7/1/2021 922818
# of days 30
Daily Average Flow= **1.056**

Reading 7/1/2020 571376
Reading 7/1/2021 922818
Total:
Annual Average Flow: **0.963 MGD**
Capacity: **59%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **July 2021**

TX0124907	Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	188	38	125	Report	11094	Day	
1	0.961	2.62	2.83	3.39	3.71	0.04	1.038	7.9	7.7		1.0	1.2	3.4	135	652	266	8.01	9.62	27.25	1082	5226	1	0
2	0.951	3.09	3.21	3.52	3.79	0.02	0.703															2	0
3	0.867	2.91	3.02	3.30	3.61	0.03	1.002															3	0.25
4	0.857	2.80	3.14	3.41	3.70	0.02	1.092															4	0.25
5	0.908	3.02	2.93	3.49	3.71	0.03	1.412															5	1
6	0.956	2.78	3.12	3.67	3.79	0.02	0.750	7.2	7.5	10	1.3	0.6	3.8	89	528	294	10.36	4.78	30.30	710	4210	6	0.5
7	0.857	3.19	3.00	3.80	3.52	0.03	1.101															7	0
8	0.893	3.11	2.78	3.50	3.33	0.04	0.166	8.0	7.9		1.7	0.5	2.0	134	528	302	12.66	3.72	14.90	998	3932	8	0
9	0.947	3.44	2.88	3.27	3.50	0.03	2.000															9	1.2
10	0.832	3.24	3.01	3.39	3.41	0.01	1.072															10	1.4
11	0.892	3.33	2.90	3.40	3.40	0.01	1.178															11	0
12	0.830	3.12	3.08	3.68	3.78	0.02	1.310															12	0
13	0.954	3.40	3.32	3.41	3.40	0.04	0.762	7.6	7.7	2	1.9	1.4	2.0	148	656	268	15.12	11.14	15.91	1178	5219	13	0
14	0.793	2.94	3.04	3.59	3.65	0.02	1.249															14	0.35
15	0.928	3.01	2.93	3.78	3.52	0.03	0.856	7.9	7.6		1.6	1.0	3.2	143	732	288	12.38	7.74	24.77	1107	5665	15	0
16	0.975	2.95	3.12	3.71	3.71	0.02	1.028															16	0.75
17	1.082	3.12	3.51	3.90	3.62	0.03	1.046															17	1.75
18	1.057	3.30	3.34	3.73	3.82	0.02	1.437															18	0
19	1.046	2.98	3.40	3.38	3.48	0.04	0.766															19	0
20	1.096	3.08	3.21	2.96	3.36	0.02	1.403	6.9	7.2	6	1.2	1.0	2.0	93	528	312	10.97	9.14	18.28	850	4826	20	0
21	1.051	3.20	3.08	3.18	3.28	0.03	1.212															21	0
22	1.101	2.43	3.46	3.30	3.59	0.05	0.951	8.9	7.7		1.3	1.8	2.5	137	656	288	11.94	16.53	22.96	1258	6024	22	0
23	1.163	2.99	3.30	3.02	3.21	0.04	0.965															23	0
24	1.129	3.01	2.72	3.39	3.62	0.03	1.138															24	0
25	1.104	2.80	2.79	3.18	3.41	0.02	1.137															25	0
26	1.635	2.60	2.40	3.31	3.51	0.02	0.883															26	0
27	1.635	2.11	2.43	2.62	3.67	0.02	1.032	6.8	7.7	731	1.8	1.1	4.2	141	756	294	24.54	15.00	57.27	1923	10309	27	0
28	1.155	1.89	1.84	2.90	3.60	0.03	1.391															28	0
29	1.061	1.64	1.32	3.18	3.48	0.04	0.803	7.1	7.6		1.0	0.2	3.7	141	784	268	8.85	1.77	32.74	1248	6937	29	0
30	1.750	3.90	2.90	1.93	3.61	0.06	1.051															30	0
31	1.088	3.80	2.70	2.33	3.51	0.01	1.094															31	0
											12.76	**8.83**	**27.15**	**1150**	**5816**								
AVG	**1.065**						**1.065**			**17**	**1.42**	**0.98**	**2.98**	**129**	**647**								
MIN	**0.793**	**1.32**					**0.166**	**6.8**	**7.2**	**2**	**1.0**	**0.2**	**2.0**	**89**	**528**		**8.01**	**1.77**	**14.90**	**710**	**3932**		**0.00**
MAX	**1.750**	**3.90**				**0.06**	**2.000**		**7.9**	**731**	**1.9**	**1.8**	**4.2**	**148**	**784**		**24.54**	**16.53**	**57.27**	**1923**	**10309**		**1.75**

2-Hour Peak Flow, <5,000 GPM:
1,166

Monthly Average Flows								
	01/21	0.905	04/21	0.998	07/21	1.065	10/20	0.868
	02/21	1.078	05/21	1.108	08/20	0.905	11/20	0.882
	03/21	0.963	06/21	1.056	09/20	0.936	12/20	0.908
			Annual Average Flow:				**0.973**	

Total **7.45**

Reading 7/1/2021 922818
Reading 8/1/2021 955846
# of days 31
Daily Average Flow= **1.065419** **MGD**

Reading 8/1/2020 601119
Reading 8/1/2021 955846
Total:
Annual Average Flow: **0.972** **MGD**
Capacity: **71%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **August 2021**

TX0124907

DAY	24 Hour	Grab Samples: Chlorine mg/l				TCR mg/l	Flow MGD	Grab Samples			Composite Samples												Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	DO mg/L	pH S.U.	E. coli CFU/ml	TSS mg/l	NH3-N mg/l	CBOD mg/l	Chloride mg/l	TDS mg/l	Alkalinity mg/l	TSS lbs/day	NH3-N lbs/day	CBOD lbs/day	Chloride lbs/day	TDS lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	188	38	125	Report	11094	Day	
1	1.058	3.80	2.90	2.63	3.41	0.01	1.384															1	0.9
2	1.083	3.48	3.07	2.91	3.68	0.02	0.737															2	0
3	1.076	3.41	2.99	2.79	3.59	0.03	1.242	7.2	7.8	8	1.4	0.9	4.9	147	704	282	12.56	8.08	43.97	1319	6318	3	0
4	1.071	3.59	2.93	2.98	3.33	0.02	0.964															4	0
5	0.997	3.27	3.21	2.90	3.41	0.01	0.884	8.7	7.9		2.9	0.6	4.0	149	676	304	24.11	4.99	33.26	1239	5621	5	0
6	1.022	2.89	3.12	3.12	3.70	0.04	0.990															6	0
7	1.022	3.40	3.53	3.30	3.52	0.02	1.064															7	0
8	1.033	3.60	3.32	3.53	3.70	0.03	1.395															8	0
9	1.044	3.31	3.10	3.01	3.48	0.01	1.030															9	0
10	1.083	3.08	2.87	3.18	3.01	0.03	1.144	6.9	7.3	2	1.4	1.3	2.8	121	576	270	12.65	11.74	25.29	1093	5203	10	0
11	1.101	3.03	2.99	3.13	3.23	0.02	0.746															11	0
12	1.060	3.42	2.92	2.30	3.00	0.01	0.929	9.3	7.7		1.7	1.4	2.0	153	720	284	15.03	12.38	17.68	1353	6365	12	0
13	1.062	3.11	2.84	2.95	3.08	0.02	0.931															13	0
14	0.982	3.19	2.73	3.23	3.11	0.02	1.043															14	0
15	0.931	3.02	2.91	3.34	2.99	0.02	1.344															15	0
16	1.036	2.90	3.10	3.52	2.93	0.03	1.111															16	0.5
17	1.014	2.83	2.92	3.34	3.12	0.02	2.040	6.9	7.3	2	1.1	1.6	3.2	149	660	290	9.30	13.53	27.06	1260	5581	17	0
18	0.940	3.12	2.90	2.50	2.90	0.01	1.003															18	0.6
19	0.786	3.21	3.02	3.22	3.39	0.02	1.443	7.8	7.7		3.2	4.2	3.0	143	700	292	20.98	27.53	19.67	937	4589	19	0.35
20	1.004	3.01	3.14	3.53	3.73	0.04	1.080															20	0
21	0.967	3.32	3.21	3.61	3.61	0.02	1.120															21	0
22	0.960	3.03	3.09	3.34	3.40	0.03	0.873															22	0
23	0.989	2.90	2.92	3.11	3.41	0.01	0.977															23	0
24	0.887	3.11	2.80	2.93	3.22	0.02	1.056	6.6	7.1	4	1.6	0.9	3.4	89	520	144	11.84	6.66	25.15	658	3847	24	0
25	0.886	3.00	2.98	3.14	2.93	0.03	0.947															25	0
26	0.906	2.72	3.14	3.02	2.80	0.01	0.751	7.1	7.7		1.3	0.4	3.0	81	508	310	9.82	3.02	22.67	612	3838	26	0
27	0.742	2.91	2.92	2.91	2.48	0.04	0.823															27	0
28	0.778	2.82	3.32	3.12	2.60	0.03	0.965															28	0
29	0.742	3.02	3.22	3.12	2.70	0.03	1.374															29	0.2
30	0.742	3.12	2.54	3.02	2.60	0.03	0.691															30	0
31	0.742	2.92	2.63	3.12	2.70	0.03	1.030	6.8	7.7	2	2.2	2.9	3.0	148	652	284	13.61	17.95	18.56	916	4035	31	0
											14.43	**11.76**	**25.92**	**1043**	**5044**								
AVG	**1.027**						**1.068**			**3**	**1.87**	**1.58**	**3.26**	**131**	**635**								
MIN	**0.742**	**2.30**					**0.691**	**6.6**	**7.1**	**2**	**1.1**	**0.4**	**2.0**	**81**	**508**		**9.30**	**3.02**	**17.68**	**612**	**3838**		**0.00**
MAX	**1.101**	**3.80**				**0.04**	**2.040**		**7.9**	**8**	**3.2**	**4.2**	**4.9**	**153**	**720**		**24.11**	**27.53**	**43.97**	**1353**	**6365**		**0.90**

2-Hour Peak Flow, <5,000 GPM:
1,215

Monthly Average Flows							
	01/21	0.905	04/21	0.998	07/21	1.065	10/20	0.868
	02/21	1.078	05/21	1.108	08/21	1.027	11/20	0.882
	03/21	0.963	06/21	1.056	09/20	0.936	12/20	0.908
			Annual Average Flow:				**0.983**	

Total **2.55**

Reading 8/1/2021 955846
Reading 9/1/2021 987676
# of days 31
Daily Average Flow= **1.02677**

Reading 9/1/2020 629161
Reading 9/1/2021 987676
Total:
Annual Average Flow: **0.982** **MGD**
Capacity: **57%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **September 2021**

TX0124907

		Grab Samples						Grab Samples		Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.742	3.12	2.78	3.22	2.60	0.03	0.970															1	0
2	0.742	2.92	3.12	3.32	2.90	0.03	0.968	7.4	7.7		1.2	3.5	2.0	142	656	304	7.43	21.66	12.38	879	4060	2	0
3	0.742	2.22	2.35	2.62	2.40	0.03	0.718															3	0.25
4	0.821	3.13	2.93	3.11	2.72	0.02	0.913															4	0.5
5	0.806	2.90	3.12	2.93	2.51	0.03	0.926															5	0
6	0.753	2.52	2.74	2.73	2.61	0.03	1.322															6	0
7	0.899	2.60	2.99	2.90	2.98	0.04	0.935	7.2	7.7	2	2.2	3.0	3.9	148	660	286	16.49	22.49	29.24	1110	4948	7	0
8	0.812	2.72	2.91	3.03	2.78	0.03	0.787															8	0
9	0.704	2.91	2.82	2.81	2.92	0.02	0.760	7.9	7.8		1.9	1.5	4.1	103	532	300	11.16	8.81	24.07	605	3124	9	0
10	0.749	3.14	2.93	2.92	3.01	0.03	0.859															10	0
11	0.708	3.02	2.74	2.99	2.70	0.02	0.856															11	0
12	0.731	2.81	3.02	2.91	2.83	0.03	1.069															12	0
13	0.807	2.90	3.11	3.13	2.91	0.04	1.115															13	0.2
14	1.153	2.53	2.83	2.95	2.59	0.02	0.840	8.0	7.1	2	1.4	0.4	3.4	91	480	316	13.46	3.85	32.69	875	4616	14	3
15	0.784	3.01	3.11	3.73	3.70	0.07	1.110															15	1
16	0.775	3.42	3.60	3.32	3.38	0.04	0.730	8.7	7.6		1.0	0.1	2.1	73	476	312	6.46	0.65	13.57	472	3077	16	0
17	0.744	2.90	2.84	3.04	3.11	0.01	0.850															17	0
18	0.752	3.00	2.93	3.13	3.11	0.01	0.950															18	0
19	0.706	3.11	2.93	3.13	3.11	0.01	1.100															19	0.5
20	0.812	2.89	3.15	2.91	3.29	0.08	0.920															20	0
21	0.789	3.02	2.72	3.02	2.93	0.01	0.900	7.5	7.5	24	4.6	0.7	2.8	91	500	284	30.27	4.61	18.42	599	3290	21	0
22	0.755	2.95	2.94	3.65	3.35	0.05	1.010															22	0
23	0.775	3.13	3.15	3.43	3.04	0.02	0.780	7.0	8.1		3.6	1.1	2.0	92	492	120	23.27	7.11	12.93	595	3180	23	0
24	0.694	3.05	3.06	3.35	2.92	0.01	1.220															24	0
25	0.702	2.84	2.95	3.33	2.93	0.02	0.760															25	0
26	0.720	3.03	3.13	3.42	3.14	0.02	0.820															26	0
27	0.798	2.96	2.93	3.51	3.01	0.01	0.870															27	0
28	0.799	2.94	3.21	3.30	3.09	0.00	1.510	7.2	7.7	15	1.9	0.5	2.7	94	572	128	12.66	3.33	17.99	626	3812	28	0
29	0.828	3.12	3.03	3.12	2.91	0.01	1.040															29	2.5
30	0.956	3.19	2.82	2.91	2.93	0.01	1.140	7.1	7.5		3.7	0.5	2.4	92	504	304	29.50	3.99	19.14	734	4018	30	1
31																						31	
											16.74	**8.50**	**20.05**	**721**	**3792**								
AVG	**0.965**						**0.958**			**6**	**2.39**	**1.26**	**2.82**	**103**	**541**								
MIN	**0.694**	**2.22**					**0.718**	**7.0**	**7.1**	**2**	**1.0**	**0.1**	**2.0**	**73**	**476**		**6.46**	**0.65**	**12.38**	**472**	**3077**		**0.00**
MAX	**1.153**	**3.73**				**0.08**	**1.510**		**8.1**	**24**	**4.6**	**3.5**	**4.1**	**148**	**660**		**30.27**	**22.49**	**32.69**	**1110**	**4948**		**3.00**

2-Hour Peak Flow, <5,000 GPM:
1,118

Monthly Average Flows								
	01/21	0.905	04/21	0.998	07/21	1.065	10/20	0.868
	02/21	1.078	05/21	1.108	08/21	1.027	11/20	0.882
	03/21	0.963	06/21	1.056	09/21	0.965	12/20	0.908
			Annual Average Flow:				**0.985**	

Total **8.95**

Flow meter rolled over 9/14/21
Flow meter working correctly.
Birdnest not allowing 7 intergers.

Reading 9/1/2021 987676
Reading 10/1/2021 1016630
# of days Total Flow 30
Daily Average Flow= **0.965**

Reading 10/1/2020 657238
Reading 10/1/2021 1016630
Annual Average Flow: **0.985 MGD**
Capacity: **64%**

HC387 Special WWTP Flow Report

Day		HC 387 WWTP01 Log	HC 387 WWTP01 Log	HC 387 WWTP02 Log	HC 387 WWTP02 Log	HC 387 WWTP03 Log	HC 387 WWTP03 Log	HC 387 WWTP04 Log	HC 387 WWTP04 Log
	Total Flow (MGD)	**WWTP 1 Flow Meter**	**WWTP 1 Daily Flow**	**WWTP 2 Flow Meter**	**WWTP 2 Daily Flow**	**WWTP 3 Flow Meter**	**WWTP 3 Daily Flow**	**WWTP 4 Flow Meter**	**WWTP 4 Daily Flow**
09/01/2021	**0.826**	191254	0.149	559880	0.204	581985	0.163	147073	0.310
09/02/2021	**0.828**	191403	0.173	560084	0.172	582148	0.142	147383	0.341
09/03/2021	**0.614**	191576	0.129	560256	0.143	582290	0.101	147724	0.241
09/04/2021	**0.768**	191705	0.158	560399	0.178	582391	0.121	147965	0.311
09/05/2021	**0.775**	191863	0.159	560577	0.178	582512	0.121	148276	0.317
09/06/2021	**1.112**	192022	0.226	560755	0.253	582633	0.191	148593	0.442
09/07/2021	**0.811**	192248	0.165	561008	0.206	582824	0.138	149035	0.302
09/08/2021	**0.647**	192413	0.138	561214	0.126	582962	0.125	149337	0.258
09/09/2021	**0.671**	192551	0.134	561340	0.172	583087	0.119	149595	0.246
09/10/2021	**0.734**	192685	0.144	561512	0.167	583206	0.131	149841	0.292
09/11/2021	**0.755**	192829	0.150	561679	0.166	583337	0.150	150133	0.289
09/12/2021	**0.959**	192979	0.188	561845	0.204	583487	0.203	150422	0.364
09/13/2021	**1.371**	193167	0.264	562049	0.417	583690	0.258	150786	0.432
09/14/2021	**0.812**	193431	0.205	562466	0.171	583948	0.156	151218	0.280
09/15/2021	**0.871**	193636	0.185	562637	0.123	584104	0.190	151498	0.373
09/16/2021	**0.646**	193821	0.173	562760	0.116	584294	0.124	151871	0.233
09/17/2021	**0.669**	193994	0.122	562876	0.125	584418	0.140	152104	0.282
09/18/2021	**0.824**	194116	0.172	563001	0.173	584558	0.163	152386	0.316
09/19/2021	**0.954**	194288	0.193	563174	0.196	584721	0.196	152702	0.369
09/20/2021	**0.821**	194481	0.176	563370	0.170	584917	0.169	153071	0.306
09/21/2021	**0.777**	194657	0.142	563540	0.167	585086	0.167	153377	0.301
09/22/2021	**0.918**	194799	0.152	563707	0.188	585253	0.243	153678	0.335
09/23/2021	**0.641**	194951	0.121	563895	0.126	585496	0.171	154013	0.223
09/24/2021	**1.035**	195072	0.187	564021	0.195	585667	0.276	154236	0.377
09/25/2021	**0.660**	195259	0.133	564216	0.134	585943	0.147	154613	0.246
09/26/2021	**0.734**	195392	0.163	564350	0.147	586090	0.168	154859	0.256
09/27/2021	**1.018**	195555	0.284	564497	0.197	586258	0.222	155115	0.315
09/28/2021	**1.247**	195839	0.231	564694	0.234	586480	0.417	155430	0.365
09/29/2021	**0.828**	196070	0.182	564928	0.192	586897	0.156	155795	0.298
09/30/2021	**1.164**	196252	0.213	565120	0.275	587053	0.342	156093	0.334
10/01/2021		196465		565395		587395		156427	
Max	**1.371**		0.284		0.417		0.417		0.442
Min	**0.614**		0.121		0.116		0.101		0.223
Avg	**0.850**		0.174		0.184		0.180		0.312
Sum	**25.490**		5.211		5.515		5.410		9.354
Count	31	31	31	31	31	31	31	31	31
Scale		1	0.001	1	0.001	1	0.001	1	0.001

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **October 2021**

TX0124907

		Grab Samples					Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.810	3.03	2.91	3.09	3.10	0.00	0.810															1	2
2	0.990	2.91	3.03	3.01	3.01	0.00	0.990															2	1.5
3	1.050	3.14	2.91	2.93	2.92	0.02	1.050															3	1
4	1.000	2.93	3.13	3.11	3.19	0.07	1.000															4	0
5	0.870	3.02	3.44	3.00	3.03	0.06	0.870	7.1	7.3	6	1.5	0.6	2.5	86	464	280	10.88	4.35	18.14	624	3367	5	0
6	0.660	3.25	2.99	2.92	3.35	0.01	0.660															6	0
7	0.960	3.06	3.10	3.23	3.17	0.02	0.960	7.4	7.5		2.7	3.0	3.6	144	716	280	21.62	24.02	28.82	1153	5733	7	0
8	0.800	2.95	2.92	3.41	3.05	0.02	0.800															8	0
9	0.850	2.84	3.01	3.12	3.23	0.01	0.850															9	0
10	0.970	3.03	3.02	3.21	2.94	0.02	0.970															10	0
11	1.170	3.21	3.14	3.33	3.12	0.03	1.170															11	1.5
12	0.580	3.15	2.95	3.04	3.40	0.01	0.580	7.0	7.3		4.9	1.0	3.4	90	532	294	23.70	4.84	16.45	435	2573	12	0
13	1.030	3.04	3.03	2.92	3.02	0.02	1.030															13	0
14	1.040	3.14	2.81	2.95	3.21	0.01	1.040	6.4	7.4	4839	6.4	0.8	2.8	87	436	286	55.51	6.94	24.29	755	3782	14	0.75
15	0.810	2.92	3.20	3.11	3.49	0.03	0.810															15	0
16	0.840	3.33	3.13	3.52	3.41	0.01	0.840															16	0
17	1.070	3.23	3.32	3.31	3.42	0.02	1.070															17	0
18	0.870	3.01	3.44	3.23	3.60	0.02	0.870															18	0
19	0.880	1.96	2.02	3.05	3.38	0.01	0.880	7.2	7.5	2	1.5	0.3	2.0	83	544	296	11.01	2.20	14.68	609	3993	19	0
20	1.050	4.30	2.61	3.92	4.49	0.01	1.050															20	0
21	0.890	4.42	2.90	4.10	4.27	0.01	0.890	6.0	7.4		5.2	1.1	3.5	117	664	292	38.60	8.16	25.98	868	4929	21	0
22	1.070	3.88	3.49	4.44	4.40	0.03	1.070															22	0
23	0.700	4.11	3.41	4.32	4.41	0.01	0.700															23	0.5
24	1.321	4.00	3.32	4.02	4.12	0.01	1.321															24	0
25	1.029	3.89	3.10	3.95	3.95	0.02	1.029															25	0
26	1.270	4.22	4.38	4.23	4.10	0.04	1.270	7.5	7.4		1.0	0.4	2.2	82	452	292	10.59	4.24	23.30	869	4787	26	0
27	1.000	4.00	3.99	3.90	4.02	0.01	1.000															27	1.5
28	1.040	3.83	3.91	3.87	3.91	0.02	1.040	9.2	7.7		2.5	0.9	3.0	78	492	288	21.68	7.81	26.02	677	4267	28	0
29	0.690	3.91	3.90	3.94	3.99	0.01	0.690			2020												29	0
30	1.040	3.73	3.92	3.72	3.90	0.01	1.040															30	0
31	1.120	3.90	3.83	3.90	3.72	0.01	1.120			2												31	0
											24.20	**7.82**	**22.21**	**749**	**4179**								
AVG	**0.951**						**0.951**			**47**	**3.21**	**1.01**	**2.88**	**96**	**538**								
MIN	**0.580**	**1.96**					**0.580**	**6.0**	**7.3**	**2**	**1.0**	**0.3**	**2.0**	**78**	**436**		**10.59**	**2.20**	**14.68**	**435**	**2573**		**0.00**
MAX	**1.321**	**4.49**				**0.07**	**1.321**		**7.7**	**4839**	**6.4**	**3.0**	**3.6**	**144**	**716**		**55.51**	**24.02**	**28.82**	**1153**	**5733**		**2.00**

2-Hour Peak Flow, <5,000 GPM:
1,215

Monthly Average Flows								
	01/21	0.905	04/21	0.998	07/21	1.065	10/21	0.951
	02/21	1.078	05/21	1.108	08/21	1.027	11/20	0.882
	03/21	0.963	06/21	1.056	09/21	0.965	12/20	0.908
			Annual Average Flow:				**0.992**	

Total **8.75**

10/1/2021 1016630
Reading 11/1/2021 1046100
Reading
# of days 31
Daily Average Flow= **0.951**

Reading 11/1/2020 684152
Reading 11/1/2021 1046100
Total
Annual Average Flow: **0.992** **MGD**
Capacity: **0%**

Used total flow for loading as 24 flow reads were reading 140 gpm lower.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **November 2021**

TX0124907

		Grab Samples					Grab Samples			Composite Samples													
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit	MGD	Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.710	2.92	4.15	4.18	4.21	0.00	1.350															1	0
2	0.952	3.24	2.70	3.22	1.55	0.00	1.070	7.2	7.0	2	2.7	0.9	3.3	132	664	300	21.44	7.15	26.20	1048	5272	2	0
3	0.935	3.45	3.13	3.61	1.93	0.01	1.020															3	0
4	0.936	3.43	3.35	3.53	4.12	0.01	1.240	9.0	7.6		5.9	0.2	2.5	86	508	296	46.06	1.56	19.52	671	3966	4	1
5	1.015	3.91	3.23	4.42	4.41	0.02	0.680															5	0
6	0.799	3.52	3.34	3.79	3.80	0.02	1.090															6	0
7	0.758	3.71	3.12	3.70	3.92	0.01	1.120															7	0
8	0.877	4.10	3.55	3.81	4.01	0.03	1.040															8	0
9	0.951	3.91	4.23	4.43	4.44	0.04	1.060	7.7	7.5	8	1.8	0.3	2.0	85	488	112	14.28	2.38	15.86	674	3870	9	0
10	0.907	4.33	4.01	4.22	4.26	0.02	1.150															10	0
11	0.972	4.11	4.42	4.30	4.45	0.03	1.290	8.5	7.7		2.1	0.4	2.0	112	488	310	17.02	3.24	16.21	908	3956	11	1
12	0.914	4.00	4.10	4.14	4.45	0.01	0.820															12	0
13	0.664	3.90	3.90	4.04	4.14	0.02	0.860															13	0
14	0.649	3.90	4.00	4.13	4.22	0.02	1.080															14	0
15	0.831	2.30	2.83	3.86	3.73	0.01	0.800															15	0
16	0.771	3.31	3.56	3.92	3.81	0.02	1.070	7.8	7.5	10	1.4	0.2	2.0	104	500	306	9.00	1.29	12.86	669	3215	16	0
17	0.886	3.42	3.12	3.91	3.93	0.01	0.670															17	0
18	0.712	3.13	3.41	3.94	3.89	0.01	0.770	8.5	7.5		2.9	0.1	2.0	144	792	260	17.22	0.59	11.88	855	4703	18	0
19	0.680	3.51	3.23	3.92	3.89	0.01	0.880															19	0
20	0.726	3.31	3.33	3.92	3.89	0.01	0.810															20	0
21	0.761	3.21	3.43	3.93	3.90	0.01	0.560															21	0
22	0.818	3.60	3.61	4.14	4.18	0.03	1.080	8.5	7.7		2.8	0.8	2.7	84	512	312	19.10	5.46	18.42	573	3493	22	0
23	0.821	3.42	3.91	4.07	4.01	0.01	0.760	8.3	7.5	2	2.8	0.2	2.5	73	468	306	19.17	1.37	17.12	500	3204	23	0
24	0.789	3.51	3.80	4.19	4.28	0.02	0.690															24	0
25	0.850	3.60	4.01	4.31	4.09	0.01	0.950															25	0
26	0.870	3.68	3.89	3.98	3.92	0.02	0.750															26	0
27	0.985	3.80	3.62	3.92	4.01	0.01	0.830															27	0
28	0.745	3.83	3.81	3.73	3.80	0.03	1.250															28	1
29	0.822	3.61	4.00	4.21	4.08	0.02	0.860															29	0
30	0.888	3.69	3.74	4.09	3.89	0.01	0.850	7.0	7.3	2	1.0	0.7	2.0	75	468	292	7.41	5.18	14.81	555	3466	30	0
31																						31	
											18.97	**3.14**	**16.99**	**717**	**3905**								
AVG	**0.948**						**0.948**			**4**	**2.60**	**0.42**	**2.33**	**99**	**543**								
MIN	**0.649**	**1.55**					**0.560**	**7.0**	**7.0**	**2**	**1.0**	**0.1**	**2.0**	**73**	**468**		**7.41**	**0.59**	**11.88**	**500**	**3204**		**0.00**
MAX	**1.015**	**4.45**				**0.04**	**1.350**		**7.7**	**10**	**5.9**	**0.9**	**3.3**	**144**	**792**		**46.06**	**7.15**	**26.20**	**1048**	**5272**		**1.00**

2-Hour Peak Flow, <5,000 GPM:
1,215

Monthly Average Flows								
	01/21	0.905	04/21	0.998	07/21	1.065	10/21	0.951
	02/21	1.078	05/21	1.108	08/21	1.027	11/21	0.948
	03/21	0.963	06/21	1.056	09/21	0.965	12/20	0.908
			Annual Average Flow:				**0.998**	

Total 3

Reading 11/1/2021 1046100
Reading 12/1/2021 1074550
# of days 30
Daily Average Flow= **0.94833**

Reading 12/1/2020 710608
Reading 12/1/2021 1074550
Total
Annual Average Flow: **0.997** **MGD**
Capacity: **53%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **December** **2021**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.903	3.80	3.92	3.92	3.81	0.03	0.580															1	0
2	0.873	3.90	4.01	3.80	4.02	0.04	1.110	9.1	7.8		2.2	2.0	2.5	77	616	312	16.02	14.56	18.20	561	4485	2	0
3	0.867	3.82	3.92	3.93	3.90	0.03	0.700															3	0
4	0.669	3.71	4.01	4.02	4.01	0.03	0.940															4	0
5	0.719	4.03	3.93	3.91	3.94	0.03	1.130															5	0
6	0.897	3.90	3.82	3.83	3.73	0.02	0.630															6	0
7	0.913	3.92	3.93	3.81	3.91	0.02	1.110	7.1	7.4	13	1.0	1.4	2.0	85	632	302	7.61	10.66	15.23	647	4812	7	0
8	0.964	3.73	4.01	4.04	3.79	0.02	0.900															8	0
9	0.853	3.90	3.91	3.82	3.70	0.02	1.000	8.6	7.9		1.2	2.2	2.0	82	524	306	8.54	15.65	14.23	583	3728	9	0
10	0.876	4.12	4.03	3.90	3.81	0.01	0.780															10	0
11	0.955	3.91	4.12	4.09	3.90	0.02	0.730															11	0.5
12	0.805	3.90	4.01	3.90	3.83	0.03	1.010															12	0
13	0.815	3.12	3.23	3.81	3.72	0.01	0.930															13	0
14	0.810	3.41	3.42	3.92	3.84	0.02	0.900	7.8	7.4	2	5.6	0.8	2.1	70	640	116	37.83	5.40	14.19	473	4323	14	0
15	0.855	3.83	3.50	4.03	3.71	0.02	0.920															15	0
16	0.900	3.60	3.74	3.80	3.80	0.03	0.640	8.1	7.4		5.5	1.7	2.5	81	494	308	41.28	12.76	18.77	608	3708	16	0
17	0.927	3.82	3.82	3.91	4.00	0.02	1.230															17	0
18	1.045	3.62	3.52	4.01	3.90	0.02	1.150															18	1.25
19	0.641	3.72	3.73	3.91	4.02	0.02	0.770															19	0
20	0.792	3.85	3.84	3.82	3.91	0.03	0.740	9.1	7.5		5.6	2.4	4.9	87	536	305	36.99	15.85	32.37	575	3540	20	0
21	0.719	3.54	3.62	3.71	3.73	0.02	0.920	7.2	7.6	10	1.0	1.1	2.0	79	540	326	6.00	6.60	11.99	474	3238	21	0
22	0.760	3.93	4.01	3.93	3.82	0.03	0.940															22	0
23	0.795	3.82	3.83	3.70	3.91	0.02	1.020															23	0
24	0.822	3.61	3.52	3.92	3.73	0.03	1.080															24	0
25	0.817	3.94	3.73	3.71	3.92	0.02	1.020															25	0
26	0.704	3.73	3.91	3.82	3.53	0.03	0.900															26	0
27	0.719	3.82	3.82	3.61	3.74	0.04	1.140															27	0
28	0.820	3.64	3.74	3.83	3.82	0.07	1.080	6.8	7.2	2	1.0	1.7	2.2	77	524	326	6.84	11.63	15.05	527	3584	28	0
29	0.827	3.83	3.62	3.92	3.95	0.00	0.800															29	0
30	0.724	3.91	3.93	4.00	3.91	0.08	0.850	8.0	7.8		3.9	2.7	4.0	85	620	356	23.55	16.30	24.15	513	3744	30	0
31	0.833	3.72	3.81	3.91	3.73	0.07	1.000															31	0
											20.52	**12.16**	**18.24**	**551**	**3907**								
AVG	**0.924**						**0.924**			**5**	**3.00**	**1.78**	**2.69**	**80**	**570**								
MIN	**0.641**	**3.12**					**0.580**	**6.8**	**7.2**	**2**	**1.0**	**0.8**	**2.0**	**70**	**494**		**6.00**	**5.40**	**11.99**	**473**	**3238**		**0.00**
MAX	**1.045**	**4.12**				**0.08**	**1.230**		**7.9**	**13**	**5.6**	**2.7**	**4.9**	**87**	**640**		**41.28**	**16.30**	**32.37**	**647**	**4812**		**1.25**

2-Hour Peak Flow, <5,000 GPM:
1,701

Reading	12/1/2021	1074550	
Reading	1/1/2022	1103200	
# of days			31
Daily Average Flow=		**0.924194**	

Monthly Average Flows								
	01/21	0.905	04/21	0.998	07/21	1.065	10/21	0.951
	02/21	1.078	05/21	1.108	08/21	1.027	11/21	0.948
	03/21	0.963	06/21	1.056	09/21	0.965	12/21	0.924
			Annual Average Flow:				**0.999**	

Reading	1/1/2021	738752	
Reading	1/1/2022	1103200	
Total			
Annual Average Flow:		**0.998**	**MGD**
Capacity:		**0%**	

Total **1.75**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM I PHASE **January 2022**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.871	3.83	3.72	3.92	3.91	0.06	1.100															1	0
2	0.794	3.54	3.62	3.83	3.92	0.04	1.110															2	0
3	0.912	3.62	3.93	4.00	4.04	0.06	1.110															3	0
4	0.932	3.83	3.83	4.12	3.93	0.03	0.910	7.2	7.5	2	1.0	0.9	2.0	72	520	346	7.77	7.00	15.55	560	4042	4	0
5	0.853	3.94	3.75	3.94	3.95	0.01	0.840															5	0
6	0.883	4.01	3.84	3.83	3.92	0.00	0.870	8.5	7.5		6.9	1.7	2.0	80	500	326	50.81	12.52	14.73	589	3682	6	0
7	0.708	3.92	3.91	4.01	4.11	0.00	0.720															7	0
8	0.000	4.01	3.73	3.93	4.01	0.07	0.980															8	0
9	0.473	3.81	3.83	4.03	3.91	0.00	1.050															9	0.75
10	0.840	3.92	3.92	3.92	4.02	0.01	1.110															10	0
11	0.885	3.93	3.71	4.01	3.93	0.00	0.720	7.2	7.4	4	1.0	1.1	2.0	75	496	322	7.38	8.12	14.76	554	3661	11	0
12	0.825	4.02	3.82	4.12	3.92	0.02	1.180															12	0
13	0.890	4.24	4.13	4.03	4.31	0.00	0.770	7.8	7.4		1.0	1.2	2.0	75	432	314	7.42	8.91	14.85	557	3207	13	0
14	0.828	4.11	4.02	4.21	4.09	0.00	1.190															14	0
15	0.723	3.92	4.12	4.11	4.19	0.00	0.580															15	0
16	0.384	4.03	3.94	3.92	4.01	0.00	1.130															16	0
17	0.823	4.03	4.03	4.04	4.30	0.00	1.030															17	0
18	0.994	3.94	3.81	3.93	4.11	0.01	0.890	6.7	7.3	2	2.2	2.5	2.2	83	504	318	18.24	20.72	18.24	688	4178	18	0
19	1.019	4.11	3.82	3.91	4.09	0.01	0.960															19	0
20	0.891	4.39	4.10	4.10	4.37	0.02	1.120	8.3	7.8		6.2	1.4	2.0	76	408	328	46.07	10.40	14.86	565	3032	20	3
21	0.945	4.10	3.92	3.92	4.05	0.01	0.530															21	0
22	0.942	4.02	4.01	4.00	4.01	0.01	0.910															22	0
23	0.939	3.93	3.81	3.81	3.92	0.03	0.923															23	0
24	0.931	3.51	4.10	4.20	4.11	0.01	1.297															24	0.25
25	1.007	4.40	4.32	4.39	4.50	0.00	1.000	7.1	7.4	2	2.0	0.7	2.0	73	504	330	16.80	5.88	16.80	613	4233	25	0.2
26	0.891	4.29	4.01	4.22	4.23	0.00	0.890															26	0
27	0.939	4.40	4.13	4.01	4.12	0.02	0.890	9.5	7.5		2.8	1.3	2.0	78	532	332	21.93	10.18	15.66	611	4166	27	0
28	0.909	4.12	4.35	4.20	3.97	0.01	0.590															28	0
29	0.942	3.81	3.92	3.81	3.89	0.02	0.900															29	0
30	0.893	3.79	3.71	3.82	3.83	0.02	1.210															30	0
31	0.927	3.90	3.80	4.00	4.01	0.00	1.150															31	0.25
Average Lbs/ Day:											**22.05**	**10.47**	**15.68**	**592**	**3775**								
AVG	**0.957**						**0.957**			**2**	**2.89**	**1.35**	**2.03**	**77**	**487**								
MIN	**0.000**	**3.51**					**0.530**	**6.7**	**7.3**	**2**	**1.0**	**0.7**	**2.0**	**72**	**408**		**7.38**	**5.88**	**14.73**	**554**	**3032**		**0.00**
MAX	**1.019**	**4.50**				**0.07**	**1.297**		**7.8**	**4**	**6.9**	**2.5**	**2.2**	**83**	**532**		**50.81**	**20.72**	**18.24**	**688**	**4233**		**3.00**

2-Hour Peak Flow, <5,000 GPM:
1,263

Monthly Average Flows								
	01/22	0.957	04/21	0.998	07/21	1.065	10/21	0.951
	02/21	1.078	05/21	1.108	08/21	1.027	11/21	0.948
	03/21	0.963	06/21	1.056	09/21	0.965	12/21	0.924
			Annual Average Flow:				**1.003**	

Total **4.45**

Reading 1/1/2022 1E+06
Reading 2/1/2022 1E+06
# of days 31
Daily Average Flow= **0.9568** **MGD**

Reading 2/1/2021 766817
Reading 2/1/2022 1E+06
Total
Annual Average Flow: **1.003** **MGD**
Capacity: **53%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **February 2022**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	1.061	3.88	3.99	3.89	4.10	0.00	0.880	6.9	7.3	2	1.0	1.3	2.2	80	460	318	8.85	11.50	19.47	708	4070	1	1
2	0.971	4.01	3.88	4.08	4.19	0.02	0.970															2	0
3	0.912	4.40	4.40	4.01	4.42	0.05	1.030	9.3	7.5													3	1.15
4	0.997	4.19	4.12	4.20	4.23	0.04	0.740	9.6	7.6		43.3	3.1	12.4	157	684	300	360.04	25.78	103.11	1305	5687	4	0
5	0.975	4.10	3.91	4.02	4.34	0.06	1.140															5	0
6	0.993	3.91	4.00	3.93	4.11	0.03	1.240															6	0
7	0.999	4.00	4.09	4.01	4.00	0.01	1.010															7	0
8	0.990	3.92	3.73	3.80	3.91	0.05	0.740	7.2	7.3	2	1.6	0.3	2.6	64	512	306	13.21	2.48	21.47	528	4227	8	0
9	0.919	4.11	4.01	3.92	4.38	0.06	1.040															9	0
10	0.877	4.23	4.30	4.19	4.19	0.04	0.630	8.2	7.6		1.3	1.2	2.0	70	516	288	9.51	8.78	14.63	512	3774	10	0
11	0.984	4.10	4.08	4.10	4.12	0.03	1.070															11	0
12	0.999	4.42	4.01	4.01	4.24	0.05	1.180															12	0
13	0.927	4.12	4.21	4.01	4.14	0.05	0.830															13	0
14	0.582	4.31	4.30	4.09	4.23	0.07	1.030															14	0
15	0.594	4.10	4.18	4.30	4.39	0.00	1.040	6.8	7.3	2	1.1	2.3	2.0	75	508	116	5.45	11.39	9.91	372	2517	15	0
16	0.738	4.33	4.09	4.23	4.00	0.00	0.740															16	0
17	0.798	3.91	3.94	4.01	4.12	0.00	0.940	8.1	7.4		1.0	1.0	2.0	74	400	290	6.66	6.66	13.31	492	2662	17	0.2
18	0.756	4.00	4.22	4.43	4.24	0.02	0.750															18	0.2
19	0.654	3.92	3.83	3.90	3.92	0.02	0.880															19	0
20	0.762	3.83	3.91	3.82	3.70	0.02	1.180															20	0
21	0.850	3.91	4.04	4.11	3.85	0.00	1.070															21	0
22	0.877	3.80	3.72	3.93	3.92	0.03	0.900	6.6	7.2	2	1.0	0.6	2.0	54	460	300	7.31	4.39	14.63	395	3365	22	0
23	1.014	3.98	4.19	4.00	3.51	0.01	0.940															23	0
24	0.897	3.92	3.92	3.91	4.03	0.03	0.730	8.3	7.6		1.0	0.9	2.0	61	432	308	7.48	6.73	14.96	456	3232	24	0
25	0.937	4.37	4.11	4.19	4.08	0.01	0.740															25	0
26	0.916	3.79	3.80	3.72	3.81	0.02	0.960															26	0
27	0.907	3.70	3.82	3.81	3.62	0.01	1.290															27	0.5
28	0.941	3.88	3.91	4.00	3.90	0.04	0.980															28	0
29																						29	
30																						30	
31																						31	
Average Lbs/ Day:											**52.31**	**9.71**	**26.43**	**596**	**3692**								
AVG	**0.953**						**0.953**			**2**	**6.41**	**1.34**	**3.40**	**79**	**497**								
MIN	**0.582**	**3.51**					**0.630**	**6.6**	**7.2**	**2**	**1.0**	**0.3**	**2.0**	**54**	**400**		**5.45**	**2.48**	**9.91**	**372**	**2517**		**0.00**
MAX	**1.061**	**4.43**				**0.07**	**1.290**		**7.6**	**2**	**43.3**	**3.1**	**12.4**	**157**	**684**		**360.04**	**25.78**	**103.11**	**1305**	**5687**		**1.15**

2-Hour Peak Flow, <5,000 GPM:
1,312

Monthly Average Flows								
	01/22	0.957	04/21	0.998	07/21	1.065	10/21	0.951
	02/22	0.953	05/21	1.108	08/21	1.027	11/21	0.948
	03/21	0.963	06/21	1.056	09/21	0.965	12/21	0.924
			Annual Average Flow:				**0.993**	

Total **3.05**

Reading 2/1/2022 1132860
Reading 3/1/2022 1159530

# of days 29
Daily Average Flow= **0.9525** 28

Reading 3/1/2021 796993
Reading 3/1/2022 1159530
Total
Annual Average Flow: **0.993 MGD**
Capacity: **53%**

9 DO and pH collected; 1 additional
TSS Exceedance - due to a RAS line getting stopped up caus

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **March 2022**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.954	3.63	3.74	3.53	3.73	0.03	0.900	7.3	7.4	2	1.0	0.7	2.0	66	392	302	7.96	5.57	15.91	525	3119	1	0
2	0.975	3.91	3.80	3.92	4.01	0.05	0.600															2	0
3	0.887	4.30	4.61	4.09	4.09	0.06	0.960	8.6	7.7		1.0	0.4	2.2	71	428	280	7.40	2.96	16.27	525	3166	3	0
4	0.927	4.14	4.09	3.94	4.22	0.04	0.830															4	0
5	0.904	3.92	4.05	4.01	4.03	0.02	0.950															5	0
6	0.867	4.11	3.93	3.93	4.11	0.00	1.220															6	0
7	0.944	3.93	4.24	4.14	3.95	0.06	0.930															7	0
8	0.951	4.00	4.06	3.82	4.24	0.04	0.750	7.0	7.4	2	1.5	0.9	2.0	71	456	286	11.90	7.14	15.86	563	3617	8	0.5
9	0.841	4.26	3.85	3.90	3.93	0.02	0.860															9	0
10	0.877	4.05	3.93	3.99	3.81	0.01	1.160	8.4	7.6		1.0	1.9	3.2	83	420	282	7.31	13.90	23.41	607	3072	10	0
11	0.890	4.13	3.71	4.13	4.10	0.00	0.640															11	0
12	0.712	4.03	3.81	3.83	3.80	0.01	0.810															12	0
13	0.637	3.83	3.81	3.84	3.85	0.01	1.120															13	0
14	0.794	3.70	3.69	3.69	3.72	0.00	0.870															14	0
15	0.753	3.79	3.60	3.51	3.84	0.00	0.680	7.0	7.4	2	1.1	0.9	2.0	74	500	288	6.91	5.65	12.56	465	3140	15	0.4
16	0.699	3.52	3.66	3.60	3.66	0.01	0.810															16	0
17	0.706	3.81	3.78	3.68	3.75	0.00	0.660	8.0	7.8		1.0	0.9	2.5	87	516	310	5.89	5.30	14.72	512	3038	17	0
18	0.630	3.63	3.71	3.77	3.87	0.00	0.680															18	0.2
19	0.625	3.72	3.80	3.69	3.84	0.00	0.790															19	0
20	0.672	3.73	3.82	3.84	3.83	0.01	1.220															20	0
21	0.863	3.81	3.63	3.62	3.62	0.02	0.000															21	0.2
22	0.978	3.85	3.71	3.44	3.83	0.06	0.210	7.0	7.1		1.8	0.7	2.8	79	508	304	14.68	5.71	22.84	644	4144	22	2.7
23	1.850	3.14	3.24	3.28	3.26	0.02	0.970															23	0
24	0.810	3.03	2.92	3.09	2.95	0.00	0.891	8.3	7.2		1.9	0.5	2.0	75	460	304	12.84	3.38	13.51	507	3107	24	0
25	1.000	3.32	3.40	2.96	3.28	0.01	0.607			2												25	0
26	0.670	3.82	3.53	3.06	3.32	0.03	0.903															26	0
27	0.710	3.33	3.32	3.53	3.25	0.02	1.197															27	0
28	0.975	3.44	3.25	3.34	3.41	0.00	0.992															28	0
29	0.860	3.51	3.44	3.65	3.73	0.01	1.051	6.7	6.9	2	1.0	0.4	2.0	70	464	296	7.17	2.87	14.34	502	3328	29	0
30	0.890	3.62	3.36	3.42	3.54	0.01	0.906															30	0.75
31	0.820	3.73	3.53	3.23	3.42	0.02	0.736	8.3	7.5		1.0	0.5	2.0	73	528	280	6.84	3.42	13.68	499	3611	31	0
Average Lbs/ Day:											**8.89**	**5.59**	**16.31**	**535**	**3334**								
AVG	**0.855**						**0.836**			**2**	**1.23**	**0.78**	**2.27**	**75**	**467**								
MIN	**0.625**	**2.92**					**0.000**	**6.7**	**6.9**	**2**	**1.0**	**0.4**	**2.0**	**66**	**392**		**5.89**	**2.87**	**12.56**	**465**	**3038**		**0.00**
MAX	**1.850**	**4.61**				**0.06**	**1.220**		**7.8**	**2**	**1.9**	**1.9**	**3.2**	**87**	**528**		**14.68**	**13.90**	**23.41**	**644**	**4144**		**2.70**

Total **4.75**

2-Hour Peak Flow, <5,000 GPM:
1,215

Monthly Average Flows								
	01/22	0.957	04/21	0.998	07/21	1.065	10/21	0.951
	02/22	0.953	05/21	1.108	08/21	1.027	11/21	0.948
	03/22	0.855	06/21	1.056	09/21	0.965	12/21	0.924
			Annual Average Flow:				**0.984**	

Reading 3/1/2022 1159530 0

Reading 4/1/2022 1176970 9073

# of days 31

Daily Average Flow= **0.855**

Reading 4/1/2021 826861 0

Reading 4/1/2022 1176970 9073

Annual Average Flow: **0.984 MGD**

Capacity: **48%**

Flow meter damaged during storm on 3/24/22.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **April 2022**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.825	3.31	3.22	3.41	3.86	0.01	0.711															1	0
2	0.820	3.72	3.44	3.72	3.63	0.02	0.898															2	0
3	0.720	3.53	3.32	3.51	3.82	0.01	0.981															3	0
4	0.770	3.46	3.53	3.64	3.71	0.01	0.990															4	0
5	0.730	3.21	3.16	3.44	3.65	0.02	1.153	6.9	7.2	2	1.2	0.9	2.0	78	444	282	7.31	5.48	12.18	475	2703	5	0
6	0.840	2.42	3.61	3.51	3.41	0.01	0.967															6	0
7	0.800	1.04	3.34	3.30	3.33	0.01	1.075	8.5	7.5		1.0	0.8	2.9	77	452	284	6.67	5.34	19.35	514	3016	7	0
8	0.990	2.91	3.52	3.68	3.84	0.00	0.561															8	0
9	0.700	3.03	3.42	3.70	3.83	0.01	0.959															9	0
10	0.940	2.82	3.31	3.61	3.74	0.01	1.417															10	0
11	0.990	2.94	3.73	3.83	3.61	0.00	1.101															11	0
12	0.930	3.71	3.91	3.89	3.80	0.00	0.692	6.7	6.9	2	3.0	0.1	3.3	87	504	304	23.27	0.78	25.60	675	3909	12	0
13	0.820	3.83	3.62	3.52	3.89	0.01	1.105															13	0
14	0.738	3.63	3.79	3.46	3.71	0.02	0.924	8.5	7.6		1.0	1.2	2.0	78	476	298	6.15	7.39	12.31	480	2930	14	0
15	0.720	3.73	3.82	3.53	3.81	0.01	1.037															15	0
16	0.740	3.73	3.81	3.43	3.81	0.01	1.032															16	0.1
17	0.730	3.62	3.72	3.42	3.80	0.01	1.430															17	0
18	0.980	3.81	3.61	3.64	3.52	0.00	0.956															18	0
19	1.069	3.70	3.79	3.83	3.44	0.00	0.944	6.8	7.1	2	2.7	2.5	3.3	87	532	322	24.07	22.29	29.42	776	4743	19	0
20	0.890	3.55	3.55	3.71	3.61	0.00	1.030															20	0
21	1.000	3.94	3.83	3.67	3.83	0.01	0.966	8.3	7.2		1.3	0.1	2.0	80	452	318	10.84	0.83	16.68	667	3770	21	0
22	1.009	3.62	3.67	3.44	3.56	0.01	0.804															22	0
23	0.940	3.83	3.75	3.82	3.75	0.00	1.226															23	0
24	1.000	3.51	3.44	3.61	3.74	0.00	0.977															24	0
25	0.999	3.61	3.62	3.53	3.41	0.01	0.984															25	0
26	0.970	3.70	3.81	3.73	3.80	0.03	0.941	7.0	7.3	2	1.0	0.8	2.0	77	496	312	8.09	6.47	16.18	623	4013	26	1.25
27	1.001	3.82	3.50	3.82	3.52	0.01	0.901															27	0
28	0.880	3.46	3.78	3.15	3.85	0.00	0.968	7.7	7.4		1.0	0.1	2.0	78	520	314	7.34	0.73	14.68	572	3816	28	0
29	0.910	3.64	3.92	3.64	3.74	0.00	0.579															29	0
30	0.770	3.71	3.54	3.41	3.66	0.00	0.988															30	0
31																						31	
Average Lbs/ Day:											**11.72**	**6.16**	**18.30**	**598**	**3612**								
AVG	**0.977**						**0.977**			**2**	**1.53**	**0.81**	**2.44**	**80**	**485**								
MIN	**0.700**	**1.04**					**0.561**	**6.7**	**6.9**	**2**	**1.0**	**0.1**	**2.0**	**77**	**444**		**6.15**	**0.73**	**12.18**	**475**	**2703**		**0.00**
MAX	**1.069**	**3.94**				**0.03**	**1.430**		**7.6**	**2**	**3.0**	**2.5**	**3.3**	**87**	**532**		**24.07**	**22.29**	**29.42**	**776**	**4743**		**1.25**

2-Hour Peak Flow, <5,000 GPM:
1,458

Monthly Average Flows								
	01/22	0.957	04/22	0.977	07/21	1.065	10/21	0.951
	02/22	0.953	05/21	1.108	08/21	1.027	11/21	0.948
	03/22	0.855	06/21	1.056	09/21	0.965	12/21	0.924
			Annual Average Flow:				**0.982**	

Total **1.35**

Reading ###### 9073
Reading ###### 38370
# of days 30
Daily Average Flow= **0.97657**

Reading 5/1/2021 856792 0
Reading 5/1/2022 1176970 38370
Annual Average Flow: **0.982 MGD**
Capacity: **54%**

3/24/22: Flow meter damaged.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **May 2022**

TX0124907	Grab Samples					Grab Samples				Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.860	3.83	3.83	3.85	3.82	0.00	1.213															1	0
2	0.890	3.62	3.44	3.73	3.55	0.01	0.979															2	0
3	1.006	3.84	3.80	3.72	3.91	0.02	0.974	6.4	6.8	2	1.0	0.6	2.0	76	544	310	8.39	5.03	16.78	638	4564	3	0
4	1.001	3.71	3.66	3.54	3.74	0.01	0.997															4	0
5	0.900	3.83	3.84	3.65	3.85	0.00	0.922	8.3	7.3		1.2	0.9	2.0	84	468	316	9.01	6.76	15.01	631	3513	5	0
6	0.830	3.65	3.80	3.11	3.61	0.02	0.669															6	1
7	0.750	3.72	3.81	3.42	3.73	0.02	0.997															7	0
8	0.760	3.73	3.82	3.24	3.63	0.01	1.293															8	0
9	0.800	3.85	3.79	3.57	3.11	0.02	0.916															9	0
10	0.830	3.74	3.76	3.41	3.06	0.01	1.291	5.8	7.2	2	1.5	2.5	2.9	96	588	300	10.38	17.31	20.07	665	4070	10	0
11	0.890	3.65	3.43	3.75	3.24	0.02	1.105															11	0
12	1.003	3.83	3.65	3.83	3.52	0.00	0.921	7.9	7.3		2.3	2.1	2.8	86	512	310	19.24	17.57	23.42	719	4283	12	0
13	1.000	3.50	3.81	3.92	3.77	0.00	0.655															13	0
14	0.970	3.61	3.72	3.81	3.64	0.01	1.001															14	0
15	1.000	3.52	3.83	3.72	3.53	0.01	1.423															15	0
16	1.060	3.74	3.51	3.83	3.72	0.03	1.213															16	0
17	1.009	3.45	3.44	3.60	3.81	0.02	0.982	6.8	7.2	2	3.5	1.2	3.7	80	492	302	29.45	10.10	31.14	673	4140	17	0
18	1.001	3.62	3.16	3.54	2.74	0.04	1.025															18	0
19	1.008	3.31	2.93	3.62	3.15	0.02	0.643	8.3	7.7		3.4	3.1	3.8	88	444	300	28.58	26.06	31.95	740	3733	19	0
20	1.191	3.74	3.31	3.46	3.42	0.02	1.019															20	0
21	0.630	3.73	3.22	3.36	3.32	0.02	1.231															21	0
22	0.970	3.62	2.93	3.34	3.43	0.02	1.212															22	1.75
23	0.830	3.55	2.74	3.23	3.51	0.01	0.869															23	0
24	0.885	3.34	3.41	3.00	3.28	0.02	1.111	6.4	7.1	2	1.0	0.2	2.0	66	476	296	7.38	1.48	14.76	487	3513	24	0
25	0.950	3.43	3.55	3.24	3.62	0.01	0.607															25	0.75
26	0.660	3.61	3.73	3.15	3.44	0.00	1.056	7.8	7.3		1.0	0.1	2.0	79	468	288	5.50	0.55	11.01	435	2576	26	0
27	0.780	3.56	3.79	2.97	3.51	0.00	0.780															27	0
28	0.890	3.74	3.62	3.26	3.73	0.01	0.887															28	0
29	0.570	3.73	3.46	3.44	3.85	0.02	0.900															29	0
30	0.910	3.65	3.51	3.52	3.47	0.01	1.238															30	0
31	1.156	3.42	3.74	3.61	3.82	0.02	0.949	7.1	7.4	2	1.0	0.1	2.0	70	472	298	9.64	0.96	19.28	675	4551	31	0
Average Lbs/ Day:											**14.18**	**9.53**	**20.38**	**629**	**3883**								
AVG	**0.971**						**1.003**			**2**	**1.77**	**1.20**	**2.58**	**81**	**496**								
MIN	**0.570**	**2.74**					**0.607**	**5.8**	**6.8**	**2**	**1.0**	**0.1**	**2.0**	**66**	**444**		**5.50**	**0.55**	**11.01**	**435**	**2576**		**0.00**
MAX	**1.191**	**3.92**				**0.04**	**1.423**		**7.7**	**2**	**3.5**	**3.1**	**3.8**	**96**	**588**		**29.45**	**26.06**	**31.95**	**740**	**4564**		**1.75**

2-Hour Peak Flow, <5,000 GPM:
1,458

Reading	5/1/2022	38370	281
Reading	6/1/2022	54939	13808
# of days			31
Daily Average Flow=	**0.970839**	**MGD**	

3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

Monthly Average Flows								
	01/22	0.957	04/22	0.977	07/21	1.065	10/21	0.951
	02/22	0.953	05/22	0.971	08/21	1.027	11/21	0.948
	03/22	0.855	06/21	1.056	09/21	0.965	12/21	0.924
			Annual Average Flow:				**0.971**	

Reading	6/1/2021	891148	0	281
Reading	6/1/2022	1176970	54939	13808
Annual Average Flow:		**0.971**	**MGD**
Capacity:		**54%**	

Total **3.5**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **June 2022**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day
1	1.201	3.51	3.65	3.73	3.71	0.01	0.899															1
2	0.850	3.74	3.82	3.45	3.53	0.03	0.977	6.4	7.3		1.0	0.1	2.3	70	424	288	7.09	0.71	16.30	496	3006	2
3	0.890	3.33	3.56	3.14	3.34	0.02	0.666															3
4	0.640	3.44	3.65	3.24	3.45	0.01	0.951															4
5	0.670	3.33	3.54	3.15	3.34	0.01	1.224															5
6	1.105	3.52	3.62	3.33	3.53	0.00	1.054															6
7	1.110	3.62	3.41	3.46	3.61	0.00	0.815	6.2	7.2	2	6.0	0.8	5.4	165	704	292	55.54	7.41	49.99	1527	6517	7
8	0.790	3.74	3.63	3.65	3.85	0.01	0.672															8
9	0.690	3.45	3.75	3.72	3.54	0.03	1.164	8.1	7.3		3.0	0.5	6.8	148	604	240	17.26	2.88	39.13	852	3476	9
10	0.860	3.53	3.84	3.44	3.72	0.05	0.751															10
11	0.680	3.62	3.46	3.27	3.47	0.04	0.944															11
12	0.930	3.73	3.23	2.95	3.68	0.01	1.238															12
13	0.940	3.47	3.55	3.13	3.55	0.03	0.962															13
14	0.800	3.65	3.87	3.56	3.73	0.05	0.919	7.6	7.2	4	1.0	0.8	2.0	85	496	290	6.67	5.34	13.34	567	3309	14
15	0.780	3.71	3.44	3.74	3.65	0.02	0.879															15
16	0.770	3.24	3.32	3.62	3.44	0.03	1.045	7.1	7.5		2.5	1.9	3.4	161	636	280	16.05	12.20	21.83	1034	4084	16
17	0.999	3.46	3.64	3.85	3.87	0.06	0.648															17
18	0.969	3.53	3.76	3.84	3.65	0.05	0.931															18
19	0.931	3.75	3.87	3.86	3.43	0.02	1.094															19
20	0.998	3.64	3.54	3.65	3.74	0.01	1.130															20
21	0.890	3.43	3.82	3.84	3.51	0.06	0.873	6.4	6.9	6	3.3	1.7	3.7	117	632	272	24.49	12.62	27.46	868	4691	21
22	0.870	3.87	3.76	3.53	3.64	0.04	2.117															22
23	1.345	3.84	3.65	3.62	3.76	0.02	0.796	6.7	7.3		1.4	0.3	2.8	155	732	270	15.70	3.37	31.41	1739	8211	23
24	1.830	3.63	3.54	3.84	3.42	0.03	1.260															24
25	1.270	3.85	3.72	3.41	3.56	0.01	0.139															25
26	1.210	3.73	3.84	3.64	3.75	0.03	0.352															26
27	1.440	3.74	3.83	3.76	3.83	0.03	0.901															27
28	0.990	3.66	3.55	2.90	3.64	0.06	0.667	6.1	6.8	2	3.2	0.3	2.7	99	528	288	26.42	2.48	22.29	817	4359	28
29	0.670	3.80	3.76	3.34	3.82	0.02	1.187															29
30	0.860	3.48	3.63	3.71	3.50	0.03	0.787	7.0	7.6		2.7	0.1	3.0	168	896	276	19.37	0.72	21.52	1205	6426	30
31																						31

Average Lbs/ Day:											**20.96**	**5.30**	**27.03**	**1012**	**4898**							
AVG	**0.935**						**0.935**			**3**	**2.68**	**0.72**	**3.57**	**130**	**628**							
MIN	**0.640**	**2.90**					**0.139**	**6.1**	**6.8**	**2**	**1.0**	**0.1**	**2.0**	**70**	**424**		**6.67**	**0.71**	**13.34**	**496**	**3006**	
MAX	**1.830**	**3.87**				**0.06**	**2.117**		**7.6**	**6**	**6.0**	**1.9**	**6.8**	**168**	**896**		**55.54**	**12.62**	**49.99**	**1739**	**8211**	

2-Hour Peak Flow, <5,000 GPM:
1,118

Monthly Average Flows								
	01/22	0.957	04/22	0.977	07/21	1.065	10/21	0.951
	02/22	0.953	05/22	0.971	08/21	1.027	11/21	0.948
	03/22	0.855	06/22	0.935	09/21	0.965	12/21	0.924
			Annual Average Flow:				**0.961**	

Total

Reading	6/1/2022	13808	
Reading	7/1/2022	41850	
# of days			30
Daily Average Flow=		**0.935**	

3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

Reading	7/1/2021	922818	0	281
Reading	7/1/2022	1176970	54939	41850
	Total:			
Annual Average Flow:		**0.961**	**MGD**	
Capacity:		**52%**		

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **July 2022**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	Rainfall
	Flow	1.0 - 4.0				<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	188	38	125	Report	11094	Day
1	0.780	3.62	3.42	3.53	3.45	0.05	0.900															1 0
2	0.940	3.41	3.62	3.53	3.64	0.04	0.874															2 0
3	0.920	3.53	3.71	3.42	3.62	0.05	0.893															3 0
4	0.900	3.52	3.63	3.61	3.53	0.03	1.196															4 0
5	0.780	3.65	3.62	3.84	3.75	0.01	1.038	5.0	6.9	2	1.9	0.3	2.6	106	576	272	12.36	1.95	16.91	690	3747	5 0
6	0.840	3.84	3.84	3.36	3.31	0.03	0.736															6 0
7	0.710	3.41	3.56	3.52	3.64	0.00	1.074	6.7	7.6		5.0	0.1	3.2	123	932	260	29.61	0.59	18.95	728	5519	7 0
8	0.990	3.77	3.73	3.75	3.86	0.01	0.649															8 0
9	1.023	3.65	3.26	3.44	3.63	0.01	1.464															9 0
10	1.523	3.44	3.54	3.67	3.75	0.02	0.620															10 0
11	0.710	3.36	3.65	3.35	3.47	0.00	1.001															11 0
12	1.410	3.53	3.42	3.53	3.55	0.05	0.656	5.2	7.2	2	1.6	0.4	2.8	91	564	284	18.82	4.70	32.93	1070	6632	12 0
13	0.660	3.61	3.77	3.86	3.83	0.03	1.243															13 0
14	0.890	3.74	3.63	3.74	3.44	0.01	0.846	6.3	7.6		1.7	0.2	3.2	166	724	292	12.62	1.48	23.75	1232	5374	14 0
15	0.699	3.46	3.55	3.52	3.78	0.00	0.879															15 0
16	0.981	3.62	3.42	3.85	3.87	0.02	0.924															16 0
17	0.928	3.74	3.74	3.66	3.85	0.01	1.194															17 0
18	1.167	3.55	3.83	3.44	3.44	0.04	1.036															18 0
19	1.222	3.41	3.61	3.31	3.66	0.02	0.660	5.2	7.1	8	4.9	1.4	4.4	150	640	260	49.94	14.27	44.84	1529	6523	19 0
20	1.433	3.41	3.11	3.65	3.41	0.01	1.207															20 0
21	1.427	3.67	3.42	3.74	3.62	0.05	0.994	6.0	7.7		5.6	0.1	4.0	134	684	284	66.65	1.19	47.60	1595	8140	21 0
22	0.999	3.44	3.74	3.43	3.27	0.04	0.556															22 0
23	0.566	3.58	3.45	3.76	3.44	0.03	1.182															23 0
24	1.440	3.35	3.53	3.54	3.53	0.02	1.004															24 0
25	1.411	3.42	3.61	3.35	3.76	0.00	0.737															25 0
26	0.770	3.63	3.34	3.57	3.61	0.02	0.981	5.7	7.1	2	2.9	0.7	3.1	181	792	290	18.62	4.50	19.91	1162	5086	26 0
27	1.020	3.34	3.58	3.72	3.47	0.00	0.896															27 0
28	0.995	3.56	3.75	3.44	3.84	0.00	0.793	6.8	7.2		1.3	0.1	2.9	183	756	264	10.79	0.83	24.07	1519	6274	28 0
29	0.920	3.62	3.42	3.21	3.56	0.01	0.725															29 0
30	0.890	3.63	3.53	2.92	3.75	0.01	0.931								796						5908	30 0
31	1.025	3.35	3.61	3.36	3.42	0.00	0.879								760						6497	31 0
Average Lbs/ Day:											**27.42**	**3.69**	**28.62**	**1191**	**5970**							
AVG	**0.928**						**0.928**			**3**	**3.11**	**0.41**	**3.28**	**142**	**722**							
MIN	**0.566**	**2.92**					**0.556**	**5.0**	**6.9**	**2**	**1.3**	**0.1**	**2.6**	**91**	**564**		**10.79**	**0.59**	**16.91**	**690**	**3747**	**0.00**
MAX	**1.523**	**3.87**				**0.05**	**1.464**		**7.7**	**8**	**5.6**	**1.4**	**4.4**	**183**	**932**		**66.65**	**14.27**	**47.60**	**1595**	**8140**	**0.00**

2-Hour Peak Flow, <5,000 GPM:
1,215

Monthly Average Flows								
	01/22	0.957	04/22	0.977	07/22	0.928	10/21	0.951
	02/22	0.953	05/22	0.971	08/21	1.027	11/21	0.948
	03/22	0.855	06/22	0.935	09/21	0.965	12/21	0.924

Annual Average Flow: **0.949**

Total **0**

Reading 7/1/2022 41850
Reading 8/1/2022 70618
# of days 31
Daily Average Flow= **0.928** **MGD**
3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

Reading 8/1/2021 955846 0 0
Reading 8/1/2022 1176970 54939 70618
Total:
Annual Average Flow: **0.950 MGD**
Capacity: **62%**

No rain events recorded.
Additional samples pulled for TDS
10 total

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **August 2022**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	188	38	125	Report	11094	Day	
1	0.680	3.71	3.24	3.55	3.60	0.04	1.109															1	0
2	1.410	3.79	3.72	3.73	3.74	0.03	0.774	5.4	7.0	2	2.7	0.3	3.9	183	752	264	31.8	3.53	45.86	2152	8843	2	0
3	0.770	3.46	3.24	3.55	3.27	0.05	1.093															3	0
4	1.031	3.64	3.55	3.76	3.34	0.06	0.902	6.4	7.3		1.1	0.1	2.2	181	808	280	9.5	0.86	18.92	1556	6948	4	0
5	0.790	3.35	3.23	3.42	3.51	0.05	0.771															5	0
6	0.680	3.53	3.47	3.64	3.70	0.03	1.052															6	0
7	0.986	3.55	3.25	3.75	3.62	0.03	1.032															7	0
8	1.410	3.44	3.44	3.56	3.46	0.04	0.952															8	0
9	0.780	3.62	3.62	3.65	3.87	0.05	0.948	6.1	7.4	2	2.1	0.1	4.4	88	616	292	13.7	0.65	28.62	572	4007	9	0
10	0.790	3.43	3.37	2.63	3.55	0.03	0.758															10	0
11	0.710	3.76	3.45	2.94	3.74	0.05	1.149	7.4	7.4		1.4	0.2	4.3	172	800	274	8.3	1.18	25.46	1018	4737	11	1.7
12	1.160	3.83	3.62	3.66	3.45	0.00	0.829															12	0
13	1.004	3.85	3.64	3.41	3.67	0.02	0.998															13	0
14	0.933	3.73	3.45	2.93	3.75	0.00	1.059															14	0
15	0.954	3.61	3.65	2.31	3.51	0.01	1.377															15	0
16	0.850	3.44	3.30	2.74	3.83	0.06	0.876	5.8	6.9	2	2.2	1.0	3.3	178	704	272	15.6	7.09	23.39	1262	4991	16	0
17	0.830	3.72	3.62	2.95	3.37	0.07	1.167															17	0
18	1.130	3.20	3.45	1.53	3.50	0.05	1.077	7.2	7.3		1.0	0.1	2.0	83	520	306	9.4	0.94	18.85	782	4901	18	0
19	0.990	2.85	3.03	1.76	3.28	0.02	0.718															19	3
20	0.670	2.94	3.15	1.97	3.49	0.02	0.995															20	0.25
21	0.650	2.75	2.93	1.96	3.40	0.03	1.326															21	0.25
22	0.810	3.14	3.04	2.34	3.69	0.04	1.056															22	0.2
23	1.610	3.46	3.22	2.83	3.41	0.07	0.830	6.9	7.1	2	1.0	2.3	2.9	96	520	308	13.4	30.88	38.94	1289	6982	23	0.39
24	0.760	3.13	2.85	2.42	3.64	0.06	1.097															24	0
25	0.980	3.45	3.10	2.96	3.83	0.07	0.997	7.4	7.2		1.4	1.3	2.0	92	528	302	11.4	10.63	16.35	752	4315	25	0.35
26	0.880	3.62	3.33	3.42	3.50	0.06	0.629															26	0
27	0.970	3.53	3.21	2.73	3.61	0.05	0.975															27	0
28	0.980	3.41	3.32	3.14	3.42	0.05	1.383															28	0
29	2.720	3.70	3.44	3.31	3.61	0.06	1.081															29	0
30	0.980	3.62	3.60	3.40	3.73	0.03	0.876	6.6	7.2	2	7.3	2.0	3.5	99	604	280	59.66	16.35	28.61	809	4937	30	0.3
31	0.750	3.61	3.79	3.32	3.65	0.05	1.301															31	0.25
Average Lbs/ Day:											**19.19**	**8.01**	**27.22**	**1133**	**5629**								
AVG	**1.006**						**1.006**			**2**	**2.24**	**0.82**	**3.17**	**130**	**650**								
MIN	**0.650**	**1.53**					**0.629**	**5.4**	**6.9**	**2**	**1.0**	**0.1**	**2.0**	**83**	**520**		**8.29**	**0.65**	**16.35**	**572**	**4007**		**0.00**
MAX	**2.720**	**3.87**				**0.07**	**1.383**		**7.4**	**2**	**7.3**	**2.3**	**4.4**	**183**	**808**		**59.66**	**30.88**	**45.86**	**2152**	**8843**		**3.00**

2-Hour Peak Flow, <5,000 GPM:
1,458

Reading	8/1/2022	70618	
Reading	9/1/2022	101805	
# of days			31
Daily Average Flow=		**1.00603**	

3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

Monthly Average Flows								
	01/22	0.957	04/22	0.977	07/22	0.928	10/21	0.951
	02/22	0.953	05/22	0.971	08/22	1.006	11/21	0.948
	03/22	0.855	06/22	0.935	09/21	0.965	12/21	0.924
			Annual Average Flow:					**0.948**

Reading	9/1/2021	987676	0	0
Reading	9/1/2022	1176970	54939	101805
Total:				

Annual Average Flow: 0.948 MGD
Capacity: 56%

Total 6.69

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **September 2022**

TX0124907

		Grab Samples						Grab Samples		Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.890	3.73	3.71	3.54	3.54	0.04	0.811	7.3	7.4		1.0	0.1	2.0	91	444	376	7.42	0.74	14.85	675	3296	1	0
2	0.880	3.54	3.48	3.58	3.46	0.03	0.771															2	0
3	1.002	3.72	3.44	3.32	3.61	0.03	1.309															3	0
4	1.012	3.71	3.60	3.55	3.45	0.03	0.598															4	1.2
5	1.001	3.64	3.81	3.52	3.72	0.02	1.398															5	0
6	1.660	3.83	3.69	3.20	3.51	0.04	1.047	7.4	7.2		1.0	0.3	2.8	86	568	292	13.84	4.15	38.76	1191	7864	6	0
7	0.000	3.55	3.52	3.71	3.39	0.06	0.675															7	0
8	0.690	3.70	3.85	3.54	3.64	0.05	0.942	7.2	7.3	49	2.6	0.1	2.1	93	452	248	14.96	0.58	12.08	535	2601	8	0.15
9	0.930	3.46	3.42	3.83	3.34	0.07	1.154															9	0
10	0.980	3.83	3.58	3.35	3.71	0.06	0.904															10	0
11	0.620	3.81	3.74	3.62	3.60	0.05	1.256															11	0
12	0.800	3.64	3.57	3.73	3.85	0.06	1.116															12	0
13	0.820	3.72	3.85	3.81	3.72	0.07	0.623	6.8	7.2		6.0	1.3	3.2	164	716	224	41.03	8.89	21.88	1122	4897	13	0
14	0.600	3.60	3.36	3.49	3.47	0.06	1.166															14	0
15	0.750	3.55	3.43	3.74	3.64	0.07	0.756	7.2	6.9	2	2.4	0.1	2.8	167	804	214	15.01	0.63	17.51	1045	5029	15	0
16	0.690	3.43	3.65	3.46	3.31	0.06	0.878															16	0
17	0.910	3.61	3.52	3.53	3.42	0.06	0.960															17	0
18	0.970	3.52	3.54	3.53	3.51	0.06	1.283															18	0
19	1.590	3.45	3.66	3.74	3.25	0.08	0.914															19	0
20	0.770	3.53	3.71	3.45	3.43	0.07	0.812	6.4	7.6	2	3.0	0.7	3.7	175	824	292	19.27	4.50	23.76	1124	5292	20	0
21	0.630	3.37	3.45	3.64	3.66	0.06	1.122															21	0
22	0.720	3.75	3.32	3.82	3.34	0.03	0.890	6.9	7.6		1.9	0.1	4.8	181	728	281	11.41	0.60	28.82	1087	4371	22	0
23	0.730	3.42	3.54	3.43	3.57	0.04	1.073															23	0
24	0.892	3.75	3.61	3.23	3.24	0.04	0.612															24	0
25	0.942	3.43	3.82	3.76	3.63	0.03	0.228															25	0
26	0.740	3.61	3.54	3.65	3.52	0.05	1.744															26	0
27	1.061	3.74	3.70	3.84	3.81	0.04	1.077	7.2	7.4	2	1.5	0.3	3.1	87	464	226	13.27	2.65	27.43	770	4106	27	0
28	0.740	3.32	3.73	3.79	3.46	0.06	1.049															28	0
29	1.490	3.20	3.44	3.57	3.74	0.05	0.560	8.1	7.6		1.0	0.1	2.3	100	532	226	12.43	1.24	28.58	1240	6611	29	0
30	0.560	3.43	3.65	3.57	3.35	0.04	0.881															30	0
31																						31	
Average Lbs/ Day:											**16.52**	**2.66**	**23.74**	**976**	**4896**								
AVG	**0.954**						**0.954**			**4**	**2.27**	**0.34**	**2.98**	**127**	**615**								
MIN	**0.000**	**3.20**					**0.228**	**6.4**	**6.9**	**2**	**1.0**	**0.1**	**2.0**	**86**	**444**		**7.42**	**0.58**	**12.08**	**535**	**2601**		**0.00**
MAX	**1.660**	**3.85**				**0.08**	**1.744**		**7.6**	**49**	**6.0**	**1.3**	**4.8**	**181**	**824**		**41.03**	**8.89**	**38.76**	**1240**	**7864**		**1.20**

2-Hour Peak Flow, <5,000 GPM:
1,263

Monthly Average Flows									
	01/22	0.957	04/22	0.977	07/22	0.928	10/21	0.951
	02/22	0.953	05/22	0.971	08/22	1.006	11/21	0.948
	03/22	0.855	06/22	0.935	09/22	0.954	12/21	0.924
			Annual Average Flow:				**0.947**	

Total **1.35**

Reading 9/1/2022 101805
Reading 10/1/2022 130414
# of days Total Flow 30
Daily Average Flow= **0.954**

Reading 10/1/2021 1016630 0 0
Reading 10/1/2022 1176970 54939 130414
Annual Average Flow: **0.947 MGD**
Capacity: **53%**

3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **October 2022**

TX0124907

		Grab Samples					Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.620	3.56	3.80	3.71	3.62	0.05	0.979															1	0
2	1.005	3.64	3.72	3.64	3.43	0.05	1.146															2	0
3	0.770	3.25	3.51	3.66	3.74	0.04	0.621															3	0
4	0.620	3.45	3.33	3.45	3.76	0.00	0.993	7.0	7.3	2	1.8	1.3	3.8	157	776	246	9.31	6.72	19.65	812	4013	4	0
5	0.960	3.77	3.64	3.87	3.64	0.02	0.952															5	0
6	0.730	3.36	3.47	3.24	3.52	0.03	0.947	8.4	7.3		1.1	0.3	2.0	95	552	298	6.70	1.83	12.18	578	3361	6	0
7	0.840	3.53	3.55	3.63	3.85	0.02	0.632															7	0
8	0.530	3.48	3.33	3.65	3.63	0.02	0.937															8	0
9	0.580	3.26	3.62	3.76	3.74	0.03	0.854															9	0
10	0.885	3.37	3.35	3.64	3.62	0.02	0.994															10	0
11	0.912	3.54	3.62	3.63	3.54	0.02	0.957	7.3	7.2	2	1.9	1.7	3.6	138	736	312	14.45	12.93	27.38	1050	5598	11	0
12	0.940	3.43	3.24	3.57	3.73	0.03	0.725															12	0
13	0.690	3.74	3.56	3.25	3.25	0.02	1.077	7.7	7.4		3.1	0.7	3.9	132	708	302	17.84	4.03	22.44	760	4074	13	0
14	0.980	3.15	3.35	3.42	3.47	0.03	0.841															14	0
15	0.842	3.72	3.53	3.64	3.55	0.02	0.938															15	0
16	0.928	3.64	3.24	3.47	3.42	0.02	1.262															16	0
17	0.910	3.46	3.42	3.25	3.01	0.03	1.066															17	0
18	0.790	3.74	3.77	3.82	3.76	0.05	1.023	7.5	7.5	2	1.8	1.0	2.9	85	496	294	11.86	6.59	19.11	562	3268	18	0
19	0.980	3.51	3.50	3.56	3.44	0.07	0.981															19	0
20	0.770	3.25	3.65	3.64	3.78	0.06	1.072	6.8	7.6		4.0	0.5	3.2	114	632	320	25.69	3.21	20.55	732	4059	20	0
21	0.880	3.43	3.83	3.31	3.53	0.07	0.596															21	0
22	0.630	3.34	3.83	3.31	3.53	0.04	0.913															22	0
23	0.610	3.43	3.74	3.13	3.25	0.05	1.185															23	0
24	1.050	3.60	3.51	3.55	3.74	0.07	1.041															24	0
25	0.990	3.52	3.85	3.70	3.42	0.05	0.881	7.0	7.5	2	4.4	2.4	3.3	142	532	304	36.33	19.82	27.25	1172	4393	25	0
26	0.860	3.86	3.66	3.82	3.65	0.07	0.922															26	0
27	1.002	3.61	3.32	3.44	3.33	0.05	0.701	9.2	7.5		1.5	0.1	3.7	143	760	378	12.54	0.84	30.92	1195	6351	27	0
28	0.620	3.74	3.57	3.67	3.51	0.07	0.951															28	0.3
29	0.960	3.52	3.63	3.75	2.24	0.06	0.931															29	0
30	0.940	3.63	3.44	3.53	1.95	0.08	1.319															30	0
31	0.820	3.81	3.71	3.70	3.62	0.05	0.657															31	0
Average Lbs/ Day:											**16.84**	**6.99**	**22.43**	**858**	**4389**								
AVG	**0.939**						**0.939**			**2**	**2.45**	**1.00**	**3.30**	**126**	**649**								
MIN	**0.530**	**1.95**					**0.596**	**6.8**	**7.2**	**2**	**1.1**	**0.1**	**2.0**	**85**	**496**		**6.70**	**0.84**	**12.18**	**562**	**3268**		**0.00**
MAX	**1.050**	**3.87**				**0.08**	**1.319**		**7.6**	**2**	**4.4**	**2.4**	**3.9**	**157**	**776**		**36.33**	**19.82**	**30.92**	**1195**	**6351**		**0.30**

2-Hour Peak Flow, <5,000 GPM:
1,215

Monthly Average Flows								
	01/22	0.957	04/22	0.977	07/22	0.928	10/22	0.939
	02/22	0.953	05/22	0.971	08/22	1.006	11/21	0.948
	03/22	0.855	06/22	0.935	09/22	0.954	12/21	0.924
			Annual Average Flow:				**0.946**	

Total **0.3**

	10/1/2022	130414
Reading	11/1/2022	159508
Reading		
# of days		31
Daily Average Flow=		**0.939**

Reading	11/1/2021	1046100	0	0
Reading	11/1/2022	1176970	54939	159508

Annual Average Flow: **0.946 MGD**
Capacity: **0%**

3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **November 2022**

TX0124907

		Grab Samples					Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	Inches
Permit	MGD	Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day
1	0.640	3.40	3.55	3.52	3.73	0.06	0.791	7.3	7.5	2	2.5	2.6	2.0	80	436	160	13.34	13.88	10.68	427	2327	1	0.7
2	0.870	3.72	3.62	3.81	3.47	0.07	1.404															2	1
3	0.740	3.51	3.80	3.45	3.64	0.04	1.249	8.2	7.5		1.7	2.3	3.8	148	716	304	10.49	14.19	23.45	913	4419	3	0
4	0.820	3.62	3.71	3.82	3.85	0.03	0.443															4	0
5	0.961	3.61	3.80	3.85	3.82	0.03	0.871															5	0.2
6	0.886	3.40	3.53	3.52	3.73	0.03	1.275															6	0
7	0.911	3.73	3.62	3.44	3.75	0.04	0.760															7	0
8	0.680	3.78	3.70	3.63	3.51	0.02	0.995	6.6	7.3	2												8	0
9	0.853	3.60	3.34	3.66	3.69	0.04	0.655	7.7	7.6		2.1	1.5	3.2	92	320	110	14.94	10.67	22.76	654	2276	9	0
10	0.780	3.34	3.43	3.55	3.44	0.02	0.937	6.4	7.5		3.8	1.0	2.0	90	268	96	24.72	6.51	13.01	585	1743	10	0
11	0.700	3.43	3.52	3.31	3.52	0.03	0.877															11	0
12	0.630	3.35	3.33	3.32	3.42	0.02	0.834															12	0.1
13	0.620	3.33	3.64	3.44	3.53	0.03	1.218															13	0
14	0.810	3.61	3.83	3.53	3.71	0.05	1.005															14	0
15	0.820	3.40	3.54	3.65	3.60	0.02	1.038	7.9	7.4	2	8.4	0.8	5.9	180	716	288	57.45	5.47	40.35	1231	4897	15	0
16	0.850	3.83	3.63	3.43	2.92	0.04	0.465															16	0
17	0.740	3.69	3.71	3.25	3.00	0.03	1.249	10.6	7.9		6.4	0.1	3.2	160	632	284	39.50	0.62	19.75	987	3900	17	0
18	0.850	3.32	3.12	3.53	3.83	0.04	0.492															18	0
19	0.900	3.50	3.32	3.62	3.71	0.01	0.917															19	0
20	0.940	3.41	3.53	3.42	3.60	0.02	0.939															20	0.2
21	0.600	2.91	3.01	3.63	3.33	0.04	1.168															21	0.5
22	0.780	3.82	3.82	3.82	3.82	0.07	0.840	7.3	7.1	2	2.1	1.4	2.2	168	812	256	13.66	9.11	14.31	1093	5282	22	0.15
23	0.740	3.80	3.80	3.80	3.80	0.04	0.634															23	0.2
24	0.850	3.83	3.43	3.60	3.81	0.04	1.015															24	0
25	0.991	3.74	3.49	3.44	3.79	0.03	1.399															25	0.3
26	0.879	3.42	3.69	3.65	3.80	0.03	0.440															26	0.8
27	1.027	3.84	3.83	3.71	3.80	0.03	1.147															27	0
28	0.720	3.81	3.81	3.81	3.61	0.05	1.149															28	0
29	0.870	3.70	3.70	3.40	3.80	0.00	0.913															29	0
30	0.870	3.82	3.02	3.82	3.72	0.02	1.022															30	0
31																						31	
Average Lbs/ Day:											**24.87**	**8.63**	**20.62**	**842**	**3549**								
AVG	**0.938**						**0.938**			**2**	**3.86**	**1.39**	**3.19**	**131**	**557**								
MIN	**0.600**	**2.91**					**0.440**	**6.4**	**7.1**	**2**	**1.7**	**0.1**	**2.0**	**80**	**268**		**10.49**	**0.62**	**10.68**	**427**	**1743**		**0.00**
MAX	**1.027**	**3.85**				**0.07**	**1.404**		**7.9**	**2**	**8.4**	**2.6**	**5.9**	**180**	**812**		**57.45**	**14.19**	**40.35**	**1231**	**5282**		**1.00**

2-Hour Peak Flow, <5,000 GPM:
1,166

Monthly Average Flows								
	01/22	0.957	04/22	0.977	07/22	0.928	10/22	0.939
	02/22	0.953	05/22	0.971	08/22	1.006	11/22	0.938
	03/22	0.855	06/22	0.935	09/22	0.954	12/21	0.924

Total **4.15**

Annual Average Flow: **0.945**

Reading	12/1/2021	1074550	0	0
Reading	12/1/2022	1176970	54939	187649

Reading 11/1/2022 159508
Reading 12/1/2022 187649
# of days 30
Daily Average Flow= **0.93803**

Annual Average Flow: **0.945 MGD**
Capacity: **52%**

Due tp a lab error only one sample was collected the week of the 20th. See attached letter.

3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **December** **2022**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.910	2.43	3.33	3.33	2.83	0.00	0.828	7.6	7.8		3.4	1.5	3.6	159	736	270	25.80	11.38	27.32	1207	5586	1	0
2	0.840	3.61	3.81	3.81	3.61	0.01	0.967	8.5	7.6	2	10.6	0.1	5.3	155	744	240	74.26	0.70	37.13	1086	5212	2	0
3	0.800	3.80	3.60	3.40	3.10	0.00	0.670															3	0
4	0.600	3.82	3.72	3.82	3.32	0.02	1.293															4	0
5	0.910	3.81	3.41	3.61	3.51	0.00	0.653															5	0
6	0.740	3.13	3.83	3.43	3.43	0.00	1.227															6	0.09
7	0.790	4.60	4.40	2.30	1.80	0.00	0.869															7	0
8	0.870	3.81	4.09	3.62	2.72	0.00	0.635	7.6	7.8		4.3	0.1	3.7	154	784	252	31.20	0.73	26.85	1117	5689	8	0
9	0.670	3.92	4.02	3.32	4.32	0.00	0.985	7.7	7.6	2	4.7	0.1	3.0	154	672	226	26.26	0.56	16.76	861	3755	9	0
10	0.650	3.80	3.80	3.10	4.10	0.00	1.412															10	0
11	1.070	3.81	3.71	3.71	3.81	0.00	0.571															11	1.75
12	0.650	1.43	2.13	2.43	3.93	0.00	1.344															12	1.1
13	0.940	3.39	2.99	3.59	3.69	0.00	0.798	7.3	7.4		3.4	1.0	4.2	152	644	234	26.65	7.84	32.93	1192	5049	13	0.5
14	0.850	3.81	3.81	3.71	3.31	0.00	0.871															14	2
15	0.670	2.38	1.98	2.88	3.78	0.00	1.263	8.9	7.8	2	4.0	0.6	4.0	161	688	238	22.35	3.35	22.35	900	3844	15	0
16	0.880	3.02	3.72	3.32	3.72	0.00	0.456															16	0
17	0.918	3.21	3.60	3.40	3.69	0.00	0.867															17	0
18	0.862	3.42	3.69	3.48	3.81	0.00	1.278															18	0
19	0.820	2.58	2.88	2.28	3.78	0.00	0.588															19	1.75
20	0.620	2.93	3.43	3.03	3.73	0.00	1.202	7.5	7.3		12.9	0.5	2.9	153	664	282	66.70	2.59	15.00	791	3433	20	0.25
21	0.840	3.29	3.19	2.59	3.79	0.00	0.550															21	0
22	0.670	1.42	1.92	3.12	3.42	0.00	1.084	9.0	7.8	2	4.5	0.6	3.7	147	816	230	25.15	3.35	20.67	821	4560	22	0
23	0.973	2.44	2.72	3.11	3.71	0.00	1.326															23	0
24	1.294	3.12	3.18	3.83	3.79	0.00	1.266															24	0
25	1.272	3.56	3.43	3.79	3.70	0.00	1.391															25	0
26	1.095	3.64	3.62	3.23	3.68	0.00	0.755															26	0
27	0.770	3.10	3.00	2.80	3.40	0.05	0.880	7.4	7.5		2.2	2.2	2.6	150	740	244	14.13	14.13	16.70	963	4752	27	0
28	0.720	3.42	3.72	3.02	3.82	0.00	0.763															28	0
29	0.680	3.81	3.42	3.21	3.41	0.00	1.058	9.3	7.8	2	3.7	4.8	4.1	149	752	306	20.98	27.22	23.25	845	4265	29	0
30	0.948	2.81	2.68	2.85	2.53	0.02	0.898															30	3
31	1.002	2.99	2.91	2.82	2.62	0.01	0.839															31	0
Average Lbs/ Day:											**33.35**	**7.18**	**23.90**	**978**	**4614**								
AVG	**0.954**						**0.954**			**2**	**5.37**	**1.15**	**3.71**	**153**	**724**								
MIN	**0.600**	**1.42**					**0.456**	**7.3**	**7.3**	**2**	**2.2**	**0.1**	**2.6**	**147**	**644**		**14.13**	**0.56**	**15.00**	**791**	**3433**		**0.00**
MAX	**1.294**	**4.60**				**0.05**	**1.412**		**7.8**	**2**	**12.9**	**4.8**	**5.3**	**161**	**816**		**74.26**	**27.22**	**37.13**	**1207**	**5689**		**3.00**

2-Hour Peak Flow, <5,000 GPM:
1,361

Reading 12/1/2022 187649
Reading 1/1/2023 217236
# of days 31
Daily Average Flow= **0.954419**
3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

Monthly Average Flows								
	01/22	0.957	04/22	0.977	07/22	0.928	10/22	0.939
	02/22	0.953	05/22	0.971	08/22	1.006	11/22	0.938
	03/22	0.855	06/22	0.935	09/22	0.954	12/22	0.954

Annual Average Flow: **0.947**

Reading	1/1/2022	1103200	0	0
Reading	1/1/2023	1176970	54939	217236
		Total		

Annual Average Flow: **0.948 MGD**
Capacity: **0%**

Total **10.44**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM I PHASE **January 2023**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.980	3.22	2.60	3.01	2.81	0.01	1.080															1	0
2	0.940	2.91	3.02	2.90	3.12	0.01	1.166															2	0
3	0.710	3.23	2.73	3.43	3.83	0.05	1.314															3	2.5
4	0.840	1.42	1.82	3.03	2.42	0.02	0.888															4	0
5	0.760	2.79	2.99	3.09	3.09	0.01	0.972	8.5	7.6	2	3.9	0.5	3.5	143	680	248	24.72	3.17	22.18	906	4310	5	0
6	0.850	4.28	3.88	1.68	3.38	0.00	0.645	7.5	7.4		3.9	0.6	3.3	147	656	296	27.65	4.25	23.39	1042	4650	6	0
7	0.939	3.80	3.89	2.12	3.50	0.00	1.500															7	0
8	0.940	3.41	3.71	3.11	3.81	0.00	0.918															8	3.5
9	0.810	3.48	4.08	1.58	3.98	0.00	1.017															9	0
10	0.940	3.83	3.63	2.73	3.83	0.01	0.780	7.4	7.5													10	0
11	0.750	3.71	4.01	1.71	3.71	0.00	1.156	7.6	7.7		6.2	0.7	2.8	141	792	248	38.78	4.38	17.51	882	4954	11	0
12	0.800	3.41	3.71	2.41	3.41	0.00	0.724	8.1	7.6	2	10.0	0.4	2.0	116	636	284	66.72	2.67	13.34	774	4243	12	0
13	0.700	3.79	3.39	2.89	3.59	0.00	0.685															13	0
14	0.500	3.30	3.32	2.70	3.51	0.01	0.752															14	0
15	0.520	3.51	3.79	2.42	3.70	0.01	1.111															15	0
16	0.700	3.13	3.73	2.83	3.73	0.02	0.770															16	0
17	0.808	1.22	1.35	1.83	3.88	0.07	0.893	6.5	7.3		2.8	0.5	2.0	152	700	264	18.53	3.37	13.48	1024	4717	17	0
18	0.720	2.73	1.53	3.03	4.23	0.04	0.642															18	0
19	0.720	2.31	2.01	2.31	4.01	0.02	0.593	8.3	7.7	2	4.6	0.3	2.0	153	652	262	27.62	1.80	12.01	919	3915	19	0
20	0.530	2.94	2.84	2.84	4.44	0.00	0.823															20	0
21	0.850	2.82	2.62	2.70	3.81	0.02	0.847															21	0
22	0.850	2.61	2.51	2.23	3.72	0.00	0.971															22	0
23	0.620	2.72	2.32	2.82	3.42	0.01	0.613															23	0
24	0.560	2.35	2.15	1.85	3.85	0.00	1.543	7.7	7.4		7.1	0.1	4.0	154	612	224	33.16	0.47	18.68	719	2858	24	0
25	0.780	2.84	2.54	2.64	4.04	0.02	0.968															25	5.25
26	0.790	3.16	3.86	2.86	3.86	0.03	0.798	9.8	7.9	22	5.3	0.2	2.9	143	363	196	34.92	1.32	19.11	942	2392	26	0.05
27	0.730	3.65	3.45	2.65	3.45	0.02	0.950															27	0
28	0.800	3.34	2.94	2.94	3.84	0.02	1.020															28	0.75
29	1.020	3.66	3.76	3.36	4.36	0.00	1.140															29	3.75
30	0.750	3.71	3.41	2.81	4.01	0.02	1.091															30	2.15
31	0.830	3.16	3.86	3.66	4.16	0.02	0.778	7.8	7.6		4.0	0.1	4.4	136	624	208	27.69	0.69	30.46	941	4319	31	0.15
Average Lbs/ Day:											**33.31**	**2.46**	**18.91**	**906**	**4040**								
AVG	**0.940**						**0.940**			**4**	**5.31**	**0.38**	**2.99**	**143**	**635**								
MIN	**0.500**	**1.22**					**0.593**	**6.5**	**7.3**	**2**	**2.8**	**0.1**	**2.0**	**116**	**363**		**18.53**	**0.47**	**12.01**	**719**	**2392**		**0.00**
MAX	**1.020**	**4.44**				**0.07**	**1.543**		**7.9**	**22**	**10.0**	**0.7**	**4.4**	**154**	**792**		**66.72**	**4.38**	**30.46**	**1042**	**4954**		**5.25**

2-Hour Peak Flow, <5,000 GPM:
2,188

Monthly Average Flows								
	01/23	0.940	04/22	0.977	07/22	0.928	10/22	0.939
	02/22	0.953	05/22	0.971	08/22	1.006	11/22	0.938
	03/22	0.855	06/22	0.935	09/22	0.954	12/22	0.954
Annual Average Flow:								**0.946**

Total **18.1**

Reading 1/1/2023 217236
Reading 2/1/2023 246384
# of days 31
Daily Average Flow= **0.940** **MGD**
3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

		Current		
Reading	2/1/2022	1132860	0	0
Reading	2/1/2023	1176970	54939	246384
		Total		
Annual Average Flow:		**0.946**	**MGD**	
Capacity:		**52%**		

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY — **February 2023**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.800	3.42	3.42	2.92	3.92	0.01	1.030															1	1.05
2	0.860	3.63	3.73	3.53	3.83	0.01	0.853	9.8	7.2	2	4.9	0.1	3.0	144	760	162	35.14	0.72	21.52	1033	5451	2	2.15
3	0.780	2.99	3.79	3.19	3.99	0.01	0.542															3	0
4	0.600	3.12	3.68	3.31	3.80	0.01	0.870															4	0
5	0.590	3.31	3.80	3.12	3.71	0.01	1.222															5	0
6	0.770	2.93	3.43	3.43	3.83	0.01	0.938															6	0
7	0.890	2.31	2.91	3.11	3.61	0.01	0.878	7.3	7.4		5.0	0.9	2.3	155	820	204	37.11	6.68	17.07	1151	6087	7	0
8	0.880	2.92	3.72	3.42	3.82	0.00	0.926															8	1.5
9	0.920	2.68	3.08	3.08	4.08	0.02	0.820	9.2	7.1	2	4.7	0.3	2.5	169	752	204	36.06	2.30	19.18	1297	5770	9	0
10	0.870	3.26	2.76	3.76	3.96	0.01	0.522															10	0
11	0.840	2.83	2.92	3.34	3.81	0.02	0.851															11	0
12	0.840	2.62	3.10	3.41	3.82	0.02	1.123															12	0
13	0.910	2.96	3.46	3.16	3.86	0.01	0.940															13	0
14	0.910	2.54	3.24	2.95	3.45	0.01	0.795	7.0	7.4		3.3	0.1	3.6	168	736	210	25.05	0.76	27.32	1275	5586	14	0.15
15	0.920	3.11	2.91	3.51	3.81	0.01	1.136															15	0
16	0.930	1.99	3.09	3.39	3.39	0.02	0.839	9.8	7.5	1230	3.3	0.2	2.0	170	768	206	25.60	1.55	15.51	1319	5957	16	0.2
17	0.940	2.95	3.75	3.85	3.85	0.02	0.628															17	0
18	0.842	2.96	3.42	3.81	3.83	0.03	0.874															18	0
19	0.875	2.51	3.19	3.85	3.54	0.02	1.194															19	0
20	0.900	3.25	3.85	3.45	3.44	0.01	1.134															20	0
21	0.960	3.41	3.81	3.11	3.81	0.00	0.815	6.8	7.4		4.4	0.1	2.0	180	728	218	35.23	0.80	16.01	1441	5829	21	0
22	1.000	2.93	4.13	3.73	4.13	0.00	1.011															22	0.15
23	1.020	3.25	3.85	3.85	4.05	0.02	1.011	8.7	7.6	2	3.6	0.2	3.2	178	740	216	30.62	1.70	27.22	1514	6295	23	0
24	0.990	3.49	3.89	3.79	3.89	0.01	0.649								404						3336	24	0
25	0.720	3.32	3.80	3.60	3.80	0.01	0.953								536						3219	25	0
26	0.730	3.43	3.90	3.69	3.68	0.01	1.317								608						3702	26	0
27	1.020	4.03	5.13	3.63	1.83	0.08	0.973								600						5104	27	0
28	0.950	3.89	4.69	4.06	2.79	0.04	0.970	6.6	7.2		2.8	0.2	3.3	177	780	190	22.18	1.58	26.15	1402	6180	28	0
29																						29	
30																						30	
31																						31	

Average Lbs/ Day:											**30.87**	**2.01**	**21.25**	**1304**	**5209**								
AVG	**0.922**						**0.922**			**10**	**4.00**	**0.26**	**2.74**	**168**	**686**								
MIN	**0.590**	**1.83**					**0.522**	**6.6**	**7.1**	**2**	**2.8**	**0.1**	**2.0**	**144**	**404**		**22.18**	**0.72**	**15.51**	**1033**	**3219**		**0.00**
MAX	**1.020**	**5.13**				**0.08**	**1.317**		**7.6**	**1230**	**5.0**	**0.9**	**3.6**	**180**	**820**		**37.11**	**6.68**	**27.32**	**1514**	**6295**		**2.15**

2-Hour Peak Flow, <5,000 GPM:
1,215

Monthly Average Flows								
	01/23	0.940	04/22	0.977	07/22	0.928	10/22	0.939
	02/23	0.922	05/22	0.971	08/22	1.006	11/22	0.938
	03/22	0.855	06/22	0.935	09/22	0.954	12/22	0.954
			Annual Average Flow:				**0.943**	

Total 5.2

Reading 2/1/2023 246384
Reading 3/1/2023 272198
29
# of days 28
Daily Average Flow= **0.921929**
3/24/22: Flow meter damaged.
5/18/22: Flow meter recalibrated and reset.

		Current		
Reading	3/1/2021	1159530	0	0
Reading	3/1/2023	1176970	54939	272198
		Total		

Annual Average Flow: **0.944** **MGD**
Capacity: **51%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **March 2023**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	1.010	4.01	4.41	4.21	3.41	0.03	1.163															1	0
2	0.980	3.58	4.08	3.98	3.78	0.01	0.776	7.8	7.5	2	3.2	0.1	3.0	171	732	208	26.15	0.82	24.52	1398	5983	2	0
3	1.050	4.82	3.82	4.92	2.62	0.01	0.763															3	0.15
4	0.950	3.80	3.71	3.91	3.29	0.03	0.949															4	0
5	0.960	3.81	3.79	3.93	3.51	0.04	1.478															5	0
6	0.980	4.09	3.99	4.39	2.79	0.02	0.792															6	0
7	1.080	2.21	3.41	4.21	3.01	0.03	1.181															7	0.15
8	1.090	2.06	3.76	4.16	3.36	0.02	1.215	7.2	7.5		5.6	2.2	3.7	182	776	268	50.91	20.00	33.64	1654	7054	8	0
9	0.960	2.81	3.81	4.31	3.81	0.01	0.878	6.7	7.8		1.1	0.5	2.3	104	612	294	8.81	4.00	18.41	833	4900	9	0
10	1.020	3.05	3.65	4.15	4.15	0.02	0.538			2												10	0
11	0.934	2.91	3.46	4.11	3.91	0.02	0.902															11	0
12	0.912	2.83	3.61	4.20	4.12	0.01	0.877															12	0
13	0.890	4.31	4.03	4.01	3.91	0.01	0.941															13	0
14	0.750	3.99	3.79	4.19	3.59	0.02	0.823	7.6	7.7	2	1.0	0.1	2.0	106	560	292	6.26	0.63	12.51	663	3503	14	0
15	0.740	3.83	3.53	4.13	3.83	0.02	0.521															15	0
16	0.830	3.62	3.11	3.91	3.79	0.01	0.901	8.8	7.8		5.8	0.1	2.0	172	744	192	40.15	0.69	13.84	1191	5150	16	0
17	0.740	3.78	3.47	3.96	3.67	0.03	0.777															17	2
18	0.620	3.74	3.25	3.94	3.55	0.02	0.843															18	0
19	0.630	3.62	3.34	3.82	3.64	0.02	1.099															19	0
20	0.900	4.03	4.11	4.11	3.81	0.01	1.052															20	0
21	0.980	3.85	3.95	3.95	4.35	0.03	0.961	7.3	7.4		2.2	0.1	3.2	181	776	204	17.98	0.82	26.15	1479	6342	21	0
22	1.080	4.09	4.19	3.79	3.99	0.02	1.108															22	0
23	0.950	3.81	3.41	3.41	3.81	0.01	0.963	7.9	7.8	2	1.0	0.1	2.0	99	540	288	7.92	0.79	15.85	784	4278	23	0
24	0.970	3.45	2.95	3.74	2.35	0.00	0.119															24	0.55
25	0.600	3.62	3.33	3.71	2.14	0.01	1.394															25	0
26	0.740	3.73	3.12	3.52	2.03	0.01	0.993															26	0
27	1.320	2.81	3.31	3.11	2.81	0.00	0.883															27	0
28	1.010	3.39	3.69	2.59	2.29	0.00	1.441	6.9	7.3		1.5	0.1	3.2	104	524	278	12.64	0.84	26.95	876	4414	28	0
29	0.970	3.11	4.11	3.71	3.41	0.01	0.861															29	0
30	1.010	3.80	3.90	4.30	4.40	0.02	0.971	8.3	7.4	2	1.2	0.1	2.2	99	504	282	10.11	0.84	18.53	836	4245	30	0
31	0.970	3.65	4.05	4.05	4.05	0.03	0.833															31	0

Average Lbs/ Day:											**20.10**	**3.27**	**21.16**	**1079**	**5097**								
AVG	**0.935**						**0.935**			**2**	**2.51**	**0.38**	**2.62**	**135**	**641**								
MIN	**0.600**	**2.03**					**0.119**	**6.7**	**7.3**	**2**	**1.0**	**0.1**	**2.0**	**99**	**504**		**6.26**	**0.63**	**12.51**	**663**	**3503**		**0.00**
MAX	**1.320**	**4.92**				**0.04**	**1.478**		**7.8**	**2**	**5.8**	**2.2**	**3.7**	**182**	**776**		**50.91**	**20.00**	**33.64**	**1654**	**7054**		**2.00**

2-Hour Peak Flow, <5,000 GPM:
2,090

Monthly Average Flows								
	01/23	0.940	04/22	0.977	07/22	0.928	10/22	0.939
	02/23	0.922	05/22	0.971	08/22	1.006	11/22	0.938
	03/23	0.935	06/22	0.935	09/22	0.954	12/22	0.954
			Annual Average Flow:					**0.950**

Total **2.85**

				OLD	Current
Reading	3/1/2023	272198	Reading	4/1/2022	9073	0
Reading	4/1/2023	301194	Reading	4/1/2023	54939	301194
# of days		31	**Annual Average Flow:**		**0.951**	**MGD**
Daily Average Flow=		**0.935**	**Capacity:**		**52%**	

5/18/22: Flow meter recalibrated and reset.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **April 2023**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.964	3.41	3.80	4.23	3.91	0.02	0.780															1	0
2	0.985	3.59	4.01	3.91	4.10	0.03	1.384															2	0
3	1.010	3.84	4.34	4.24	3.64	0.01	1.081															3	0
4	1.000	4.01	4.11	4.13	3.83	0.02	1.202	7.0	7.3		1.8	0.1	2.3	160	728	276	15.01	0.83	19.18	1334	6072	4	0
5	1.100	4.65	4.55	4.85	4.35	0.03	0.517															5	1.5
6	1.440	4.13	4.84	4.94	4.44	0.03	0.517	7.8	7.4	2	1.8	0.1	2.0	161	768	228	21.62	1.20	24.02	1934	9223	6	5
7	0.889	4.55	4.51	4.61	4.14	0.00	0.225															7	0.8
8	1.010	4.07	4.10	4.02	3.92	0.01	0.531															8	2.5
9	0.940	4.15	3.98	3.89	3.91	0.02	1.429															9	0
10	0.960	3.99	4.19	4.19	4.39	0.02	0.823															10	0
11	0.970	4.44	4.34	4.14	3.44	0.01	1.025	7.2	7.5		1.6	0.1	4.8	160	772	204	12.94	0.81	38.83	1294	6245	11	0
12	0.930	4.02	4.02	4.32	4.02	0.02	0.477															12	0.75
13	0.590	4.13	4.43	4.13	4.23	0.02	1.277	6.7	7.5	2	1.4	0.1	2.0	155	812	238	6.89	0.49	9.84	763	3996	13	0
14	0.890	4.29	4.12	4.02	5.12	0.03	0.476															14	0
15	0.930	3.81	3.63	3.90	4.11	0.01	0.935															15	0
16	0.900	3.90	3.71	3.84	1.95	0.02	1.159															16	0
17	0.880	1.10	3.60	3.20	1.80	0.06	0.986															17	0
18	0.900	3.01	3.41	3.71	2.91	0.04	0.900	7.0	7.4		2.2	0.1	2.0	151	720	230	16.51	0.75	15.01	1133	5404	18	0
19	0.870	3.33	3.13	3.43	3.13	0.05	0.920															19	0
20	0.900	4.69	4.89	4.79	2.79	0.05	0.708	7.4	7.4	2	1.7	0.1	5.2	166	724	234	12.76	0.75	39.03	1246	5434	20	0.15
21	0.930	3.84	4.24	4.12	3.02	0.01	0.840															21	1
22	1.000	3.61	4.05	4.30	3.14	0.00	0.839															22	0
23	0.840	3.93	4.11	4.13	3.00	0.00	1.218															23	0
24	0.900	4.20	3.80	4.40	2.50	0.03	0.900															24	0
25	0.880	4.41	4.01	4.21	2.31	0.02	0.899	7.0	7.4		1.4	0.1	2.0	159	712	194	10.27	0.73	14.68	1167	5226	25	0
26	0.900	4.09	3.79	4.29	3.39	0.02	0.963															26	0
27	0.930	3.94	4.04	4.54	2.84	0.04	0.852	8.1	7.4	2	1.5	0.1	4.4	197	812	224	11.63	0.78	34.13	1528	6298	27	2
28	0.930	3.72	4.22	4.22	3.02	0.05	0.589															28	0
29	0.570	3.71	3.89	3.88	3.23	0.04	0.850															29	0.6
30	0.880	3.80	3.81	3.79	3.14	0.02	1.208															30	0
31																						31	

Average Lbs/ Day:											**13.46**	**0.79**	**24.34**	**1300**	**5987**								
AVG	**0.957**						**0.884**			**2**	**1.68**	**0.10**	**3.09**	**164**	**756**								**0.00**
MIN	**0.570**	**1.10**					**0.225**	**6.7**	**7.3**	**2**	**1.4**	**0.1**	**2.0**	**151**	**712**		**6.89**	**0.49**	**9.84**	**763**	**3996**		
MAX	**1.440**	**5.12**				**0.06**	**1.429**		**7.5**	**2**	**2.2**	**0.1**	**5.2**	**197**	**812**		**21.62**	**1.20**	**39.03**	**1934**	**9223**		**5.00**

2-Hour Peak Flow, <5,000 GPM:
1,312

Monthly Average Flows								
	01/23	0.940	04/23	0.957	07/22	0.928	10/22	0.939
	02/23	0.922	05/22	0.971	08/22	1.006	11/22	0.938
	03/23	0.935	06/22	0.935	09/22	0.954	12/22	0.954
			Annual Average Flow:				**0.948**	

Total 14.3

		4/1-4/6	4/6-5/1
Reading	4/1/2023	301194	0
Reading	5/1/2023	306900	22990
# of days			30
Daily Average Flow=		**0.95653**	

		Old		New
Reading	5/1/2022	45017	0	0
Reading	5/1/2023	54939	306900	22990
Annual Average Flow:		**0.931**	**MGD**	
Capacity:		**53%**		

5/18/22: Flow meter recalibrated and reset.

4/6/23 storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **May 2023**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.830	4.14	4.04	4.04	3.44	0.05	0.915															1	0
2	0.970	4.72	4.32	4.52	3.72	0.03	0.896	6.9	7.5		1.8	0.1	3.4	133	740	224	14.56	0.81	27.51	1076	5986	2	0
3	0.880	5.00	4.50	4.20	3.30	0.04	0.944															3	0
4	0.910	4.81	4.31	4.01	3.61	0.06	1.014	5.7	7.0	2	2.0	0.1	5.3	130	808	256	15.18	0.76	40.22	987	6132	4	0
5	0.880	4.34	4.04	3.64	3.24	0.05	0.608															5	0
6	1.050	4.02	3.93	3.73	3.51	0.04	1.015															6	0
7	1.010	4.11	4.12	3.84	2.93	0.04	1.534															7	0
8	1.070	4.43	4.03	4.13	3.23	0.05	1.246															8	0
9	1.400	4.04	4.24	4.34	3.54	0.07	1.334				2.9	0.1	3.4	135	676	228	33.86	1.17	39.70	1576	7893	9	2
10	1.130	3.63	3.93	4.03	3.13	0.04	1.180	5.0	7.4													10	4
11	1.260	2.84	3.24	4.09	3.79	0.06	1.018	8.9	7.4	2	2.8	0.2	2.8	125	740	220	29.42	2.10	29.42	1314	7776	11	0
12	1.060	2.73	3.13	3.63	3.33	0.04	0.650															12	0
13	1.000	2.93	3.32	3.81	3.51	0.00	1.147															13	0
14	1.060	2.71	3.50	4.06	3.30	0.06	1.717															14	2
15	1.270	2.82	3.12	3.42	3.12	0.05	1.111															15	2
16	1.200	3.34	4.04	2.84	2.84	0.07	1.036	7.0	7.8		3.0	0.1	2.0	147	576	220	30.02	1.00	20.02	1471	5765	16	0
17	1.090	3.02	3.52	3.12	3.02	0.04	1.168															17	0
18	1.040	3.49	3.19	2.79	3.59	0.05	1.062	8.9	7.3	2	2.4	0.1	2.0	162	808	224	20.82	0.87	17.35	1405	7008	18	0
19	1.120	3.72	3.02	3.02	3.92	0.06	1.069															19	0
20	1.060	3.51	3.21	2.93	3.78	0.04	0.928															20	0
21	0.980	3.42	3.12	3.14	3.80	0.04	1.067															21	0
22	1.040	3.73	2.93	2.73	4.13	0.06	1.057															22	0
23	1.120	3.43	2.73	3.03	4.24	0.05	1.072	6.5	7.5		1.9	0.1	3.2	175	588	228	17.75	0.93	29.89	1635	5492	23	1
24	1.080	3.60	2.90	2.80	3.90	0.04	1.091															24	2
25	1.050	3.41	3.11	3.11	3.71	0.05	0.959	6.6	7.5	2	2.2	0.1	2.0	175	716	262	19.27	0.88	17.51	1532	6270	25	0
26	1.010	3.74	2.84	3.34	3.44	0.04	1.023								552						4650	26	0
27	1.000	3.72	3.12	3.53	3.88	0.04	0.961								580						4837	27	0
28	0.950	3.53	3.12	3.42	3.90	0.04	0.561								592						4690	28	0
29	0.920	3.41	3.24	3.64	3.81	0.02	1.195								532						4082	29	0
30	0.970	3.55	4.11	2.21	3.71	0.06	1.090															30	0
31	0.990	3.73	3.73	2.63	3.53	0.04	0.991															31	0
Average Lbs/ Day:											**22.61**	**1.06**	**27.70**	**1374**	**5882**								
AVG	**1.054**						**1.054**			**2**	**2.38**	**0.11**	**3.01**	**148**	**659**								
MIN	**0.830**	**2.21**					**0.561**	**5.0**	**7.0**	**2**	**1.8**	**0.1**	**2.0**	**125**	**532**		**14.56**	**0.76**	**17.35**	**987**	**4082**		**0.00**
MAX	**1.400**	**5.00**				**0.07**	**1.717**		**7.8**	**2**	**3.0**	**0.2**	**5.3**	**175**	**808**		**33.86**	**2.10**	**40.22**	**1635**	**7893**		**4.00**

2-Hour Peak Flow, <5,000 GPM:
1,847

Monthly Average Flows								
	01/23	0.940	04/23	0.957	07/22	0.928	10/22	0.939
	02/23	0.922	05/23	1.054	08/22	1.006	11/22	0.938
	03/23	0.935	06/22	0.935	09/22	0.954	12/22	0.954
			Annual Average Flow:				**0.955**	

Total 13

Reading 5/1/2023 22990
Reading 6/1/2023 55649
# of days 31
Daily Average Flow= **1.053516** **MGD**

Reading 6/1/2022 13808 0
Reading 6/1/2023 306900 55649
12 TDS collected
Annual Average Flow: **0.955** **MGD**
Capacity: **59%**

4/6/2023 A storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **June 2023**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	0.900	3.60	3.60	2.90	3.60	0.05	0.867	7.2	7.4	2	1.7	0.1	2.3	180	624	276	12.76	0.75	17.26	1351	4684	1	0
2	1.090	3.84	3.24	2.74	3.44	0.04	0.701															2	0
3	1.098	3.85	3.41	2.93	3.84	0.05	1.583	9.1	7.7		3.8	0.1	5.4	172	632	302	34.80	0.92	49.45	1575	5787	3	0
4	0.910	3.98	3.78	3.38	3.98	0.01	0.844															4	1.5
5	1.140	3.71	3.61	3.31	3.71	0.03	1.117															5	0
6	0.990	3.53	3.33	3.13	2.83	0.04	0.780	6.6	7.6		1.9	0.1	3.3	165	604	254	15.69	0.83	27.25	1362	4987	6	0
7	1.060	3.22	3.02	2.62	2.52	0.02	1.034															7	0
8	0.970	3.30	2.70	2.90	3.00	0.03	1.059	7.5	7.5	2	2.8	0.1	2.7	132	744	214	22.65	0.81	21.84	1068	6019	8	0
9	0.910	3.05	3.15	3.05	3.25	0.04	0.663															9	0
10	1.080	2.94	3.04	3.14	3.06	0.03	0.992															10	0
11	0.990	3.22	2.85	3.03	3.14	0.04	1.441															11	0
12	0.960	2.82	2.72	3.22	3.32	0.02	1.110															12	0
13	1.100	3.03	2.23	3.43	3.03	0.03	0.803	7.1	7.7		2.3	0.1	2.9	178	600	242	21.10	0.92	26.60	1633	5504	13	0
14	1.170	3.18	3.68	3.78	3.58	0.06	1.217															14	0
15	1.060	3.01	3.51	3.61	3.41	0.05	0.935	6.8	7.4	2	5.7	0.2	5.1	151	852	208	50.39	1.77	45.09	1335	7532	15	0
16	1.040	3.86	3.86	3.16	3.86	0.04	0.942															16	0
17	1.120	3.42	3.70	3.33	3.64	0.05	1.066															17	0
18	1.080	3.61	3.72	3.44	3.71	0.04	1.466															18	0
19	1.040	3.76	4.13	4.73	5.16	0.05	0.973															19	0
20	1.040	4.04	3.94	4.74	3.44	0.07	0.992	6.8	7.5													20	0
21	0.980	3.83	3.83	5.43	2.73	0.04	0.843															21	0
22	1.020	3.42	4.02	4.63	3.74	0.06	0.630	6.3	7.5	2	1.7	0.1	2.6	150	612	250	14.46	0.85	22.12	1276	5206	22	2.5
23	0.700	3.90	3.60	2.90	3.90	0.07	0.523															23	0
24	1.078	3.88	3.92	3.40	4.03	0.07	1.074				2.1	0.1	4.8	164	852	108	18.88	0.90	43.15	1474	7660	24	0
25	1.053	4.01	3.93	3.24	4.04	0.07	1.421															25	0
26	0.960	3.85	3.75	3.65	4.15	0.04	1.107															26	0
27	1.100	4.01	4.01	4.01	3.91	0.06	1.025	6.8	7.6		2.3	0.1	2.9	165	900	200	21.10	0.92	26.60	1514	8257	27	0
28	1.070	4.13	4.23	4.33	4.23	0.04	0.911															28	0
29	1.030	4.30	3.90	3.70	4.30	0.02	1.065	7.1	7.6	2	1.6	0.2	2.6	158	688	230	13.74	1.72	22.33	1357	5910	29	0
30	1.010	3.96	4.16	4.06	4.16	0.03	0.613															30	0
31																						31	

Average Lbs/ Day:											**22.56**	**1.04**	**30.17**	**1395**	**6155**								
AVG	**0.993**						**0.993**			**2**	**2.59**	**0.12**	**3.46**	**162**	**711**								
MIN	**0.700**	**2.23**					**0.523**	**6.3**	**7.4**	**2**	**1.6**	**0.1**	**2.3**	**132**	**600**		**12.76**	**0.75**	**17.26**	**1068**	**4684**		**0.00**
MAX	**1.170**	**5.43**				**0.07**	**1.583**		**7.7**	**2**	**5.7**	**0.2**	**5.4**	**180**	**900**		**50.39**	**1.77**	**49.45**	**1633**	**8257**		**2.50**

2-Hour Peak Flow, <5,000 GPM:
1,604

Monthly Average Flows								
	01/23	0.940	04/23	0.957	07/22	0.928	10/22	0.939
	02/23	0.922	05/23	1.054	08/22	1.006	11/22	0.938
	03/23	0.935	06/23	0.993	09/22	0.954	12/22	0.954
			Annual Average Flow:				**0.960**	

Total 4

Reading ###### 55649
Reading ###### 85446
# of days 30
Daily Average Flow= **0.993**

Reading 7/1/2022 41850 0
Reading 7/1/2023 306900 85446
Total:
Annual Average Flow: **0.960** **MGD**
Capacity: **55%**

4/6/2023 A storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **July 2023**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfal
	Flow	1.0 - 4.0				<0.1	1.500	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	188	38	125	Report	11094	Day	
1	0.970	3.81	3.97	3.93	3.94	0.02	1.012															1	0
2	1.030	3.73	3.90	3.83	3.81	0.02	1.030															2	0
3	1.020	3.82	3.94	3.71	4.12	0.01	1.030															3	0
4	1.054	3.83	4.11	3.84	3.93	0.04	1.273	5.8	7.6		1.8	0.1	2.0	160	620	172	15.82	0.88	17.58	1406	5450	4	0
5	1.020	4.12	4.22	4.32	2.72	0.08	1.091															5	0
6	0.980	4.24	4.34	4.04	2.84	0.06	0.975	7.3	7.5	2												6	0.5
7	1.060	4.01	4.11	3.81	2.51	0.03	0.675	7.5	7.5		1.9	0.1	2.9	151	696	214	16.80	0.88	25.64	1335	6153	7	1
8	1.060	3.82	3.93	3.72	2.32	0.04	1.020															8	0
9	1.000	3.93	4.21	3.93	3.01	0.05	1.405															9	0
10	1.020	4.26	4.06	4.46	2.06	0.04	1.042															10	0
11	1.010	4.04	4.24	4.34	2.44	0.03	1.001	5.9	7.5		2.6	0.1	2.0	155	740	206	21.90	0.84	16.85	1306	6233	11	0
12	1.060	4.22	3.82	4.02	2.22	0.02	1.042															12	0
13	1.050	4.41	4.11	4.21	2.51	0.03	1.141	6.1	7.4	2	1.9	0.1	2.3	155	640	248	16.64	0.88	20.14	1357	5604	13	0
14	1.020	4.33	3.73	3.83	2.83	0.01	0.605															14	0
15	1.030	3.89	3.85	3.88	1.55	0.01	1.119															15	0
16	1.050	3.80	3.84	3.90	2.44	0.02	1.325															16	0
17	1.030	4.14	4.24	4.34	3.54	0.01	0.978															17	0
18	1.030	4.42	4.12	4.72	3.42	0.04	1.193	6.2	7.5		1.1	0.1	2.0	160	752	202	9.45	0.86	17.18	1374	6460	18	0
19	1.060	4.25	4.25	4.43	3.86	0.03	0.944															19	0
20	1.100	3.73	4.03	3.23	3.73	0.05	0.935				2.0	0.1	2.8	150	752	268	18.35	0.92	25.69	1376	6899	20	0
21	0.910	3.86	3.89	3.62	3.49	0.02	0.889			2												21	0
22	1.080	3.74	3.81	3.73	3.85	0.02	1.042	7.4	7.5													22	0
23	1.040	3.72	3.72	3.54	3.81	0.02	1.448															23	0
24	1.090	3.94	3.95	3.84	3.64	0.03	1.072															24	0
25	1.060	4.00	3.80	3.20	3.10	0.01	0.924	6.3	7.4		4.0	0.1	6.6	155	704	246	35.36	0.88	58.35	1370	6224	25	0
26	1.060	3.85	4.05	3.75	3.85	0.01	1.038															26	0
27	1.130	3.72	3.72	3.32	3.32	0.02	1.215	6.5	7.4	2	1.7	0.1	3.1	161	744	208	16.02	0.94	29.22	1517	7012	27	0
28	1.000	4.13	3.93	3.73	3.83	0.03	0.713															28	0
29	1.080	3.62	3.74	3.71	3.53	0.02	1.247															29	0
30	1.030	3.81	3.83	3.62	3.72	0.02	1.353															30	0
31	1.070	3.91	3.61	3.41	3.11	0.03	1.058															31	0
Average Lbs/ Day:											**18.79**	**0.89**	**26.33**	**1380**	**6254**								
AVG	**1.059**						**1.059**			**2**	**2.13**	**0.10**	**2.96**	**156**	**706**								
MIN	**0.910**	**1.55**					**0.605**	**5.8**	**7.4**	**2**	**1.1**	**0.1**	**2.0**	**150**	**620**		**9.45**	**0.84**	**16.85**	**1306**	**5450**		**0.00**
MAX	**1.130**	**4.72**				**0.08**	**1.448**		**7.6**	**2**	**4.0**	**0.1**	**6.6**	**161**	**752**		**35.36**	**0.94**	**58.35**	**1517**	**7012**		**1.00**

2-Hour Peak Flow, <5,000 GPM:
1,555

Monthly Average Flows								
	01/23	0.940	04/23	0.957	07/23	1.059	10/22	0.939
	02/23	0.922	05/23	1.054	08/22	1.006	11/22	0.938
	03/23	0.935	06/23	0.993	09/22	0.954	12/22	0.954
			Annual Average Flow:				**0.971**	

Total **1.5**

Reading 7/1/2023 85446
Reading 8/1/2023 118281
# of days 31
Daily Average Flow= **1.059194** **MGD**

Reading 8/1/2022 70618 0
Reading 8/1/2023 306900 118281
Total:
Annual Average Flow: **0.971** **MGD**
Capacity: **71%**

4/6/2023 A storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **August 2023**

TX0124907

		Grab Samples						Grab Samples			Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	188	38	125	Report	11094	Day	
1	1.140	3.64	3.84	3.74	3.04	0.03	1.161	6.3	7.5		2.1	0.1	3.5	154	740	228	20.0	0.95	33.28	1464	7036	1	0
2	1.080	3.75	4.05	4.05	3.35	0.02	1.037															2	0
3	1.160	4.01	3.91	4.21	3.51	0.01	1.162	5.9	7.8	2												3	0
4	1.050	3.90	3.70	4.60	3.20	0.01	0.906	8.5	7.5		3.3	0.1	4.5	149	780	250	28.9	0.88	39.41	1305	6830	4	0
5	1.100	3.82	3.71	3.93	3.42	0.02	0.827															5	0
6	1.100	3.91	3.82	3.93	3.53	0.03	1.299															6	0
7	1.090	4.01	3.41	4.11	3.81	0.01	1.340															7	0
8	1.130	3.74	3.24	4.34	3.74	0.01	1.195	6.5	7.6		1.6	0.3	4.9	150	752	278	15.1	2.83	46.18	1414	7087	8	0
9	1.110	3.83	3.53	4.03	3.43	0.02	1.138															9	0
10	1.200	3.72	3.72	3.62	3.02	0.01	1.062	7.2	8.2	2	1.4	1.7	4.1	152	584	270	14.0	17.01	41.03	1521	5845	10	0
11	1.140	3.80	3.40	3.80	3.20	0.04	0.896															11	0
12	1.090	3.92	3.44	3.82	3.43	0.04	1.369															12	0
13	1.210	3.74	3.72	3.44	3.75	0.05	1.391															13	0
14	1.190	2.05	3.85	3.05	3.15	0.08	1.279															14	0
15	1.220	3.71	3.61	4.81	5.01	0.05	1.038	6.4	7.4		3.2	3.1	3.1	100	504	300	32.6	31.54	31.54	1014	5128	15	0
16	1.270	3.34	3.83	4.63	4.83	0.05	0.945															16	0
17	1.240	3.98	3.91	3.83	4.44	0.04	1.412	4.8	7.4	2	1.8	0.4	3.1	84	500	296	18.6	4.14	32.06	868	5171	17	0
18	1.160	3.85	3.05	2.05	2.15	0.05	0.945															18	0
19	1.150	3.72	3.53	3.12	2.93	0.04	1.120															19	0
20	1.110	3.80	3.71	3.53	3.32	0.04	1.365															20	0
21	1.140	3.71	3.14	2.54	2.81	0.06	1.154															21	0
22	1.220	4.04	3.53	3.03	2.92	0.03	1.268	6.3	7.4		2.2	0.1	2.0	67	372	304	22.4	1.02	20.35	684	3785	22	0
23	1.170	3.82	3.32	3.22	3.02	0.02	1.080															23	0
24	1.230	3.51	3.41	3.31	2.81	0.03	1.295	6.6	8.0	2	1.6	0.1	2.0	146	700	266	16.4	1.03	20.52	1498	7181	24	0
25	1.120	3.34	3.54	3.44	3.24	0.02	0.636															25	0
26	1.220	3.81	3.82	3.45	3.23	0.02	1.148															26	0
27	1.248	4.01	3.84	3.02	3.33	0.04	1.610															27	0
28	1.130	3.61	3.71	3.31	3.11	0.02	1.233															28	0
29	1.210	3.54	3.63	3.53	3.34	0.02	1.001	6.3	7.4		1.9	0.1	2.0	97	424	284	19.2	1.01	20.18	977	4279	29	0
30	1.160	3.71	3.51	3.21	3.41	0.02	0.705															30	0
31	1.238	3.93	3.74	3.42	3.31	0.00	1.196	6.1	7.5	3110	4.1	0.1	2.6	142	792	208	42.33	1.03	26.84	1466	8177	31	0
Average Lbs/ Day:											**22.94**	**6.14**	**31.14**	**1221**	**6052**								
AVG	**1.136**						**1.136**			**9**	**2.32**	**0.61**	**3.18**	**124**	**615**								
MIN	**1.050**	**2.05**					**0.636**	**4.8**	**7.4**	**2**	**1.4**	**0.1**	**2.0**	**67**	**372**		**14.01**	**0.88**	**20.18**	**684**	**3785**		**0.00**
MAX	**1.270**	**5.01**				**0.08**	**1.610**		**8.2**	**3110**	**4.1**	**3.1**	**4.9**	**154**	**792**		**42.33**	**31.54**	**46.18**	**1521**	**8177**		**0.00**

2-Hour Peak Flow, <5,000 GPM:
1,264

Monthly Average Flows								
	01/23	0.940	04/23	0.957	07/23	1.059	10/22	0.939
	02/23	0.922	05/23	1.054	08/23	1.136	11/22	0.938
	03/23	0.935	06/23	0.993	09/22	0.954	12/22	0.954

Annual Average Flow: **0.982**

Total **0**

Reading 8/1/2023 118281
Reading 9/1/2023 153494
# of days 31
Daily Average Flow= **1.1359**

Reading 9/1/2022 101805 0
Reading 9/1/2023 306900 153494
Total:
Annual Average Flow: **0.982** **MGD**
Capacity: **63%**

No Rain Events Recorded.
11 DO & pH - 1 additional

4/6/2023 A storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **September 2023**

TX0124907

		Grab Samples						Grab Samples		Composite Samples												
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	1.100	4.01	3.92	3.82	3.83	0.02	0.911															1	0
2	1.010	3.92	3.81	3.74	3.42	0.02	1.002															2	0
3	1.000	3.99	3.92	3.83	3.52	0.02	1.203															3	0
4	1.243	3.97	3.91	3.82	3.82	0.05	1.773															4	0
5	1.130	3.80	3.72	3.50	3.71	0.04	1.009	4.7	7.2													5	0
6	1.370	3.68	3.59	3.29	4.03	0.05	1.059															6	0
7	1.110	3.81	3.81	3.41	4.20	0.04	0.802	7.4	7.9	2	2.8	0.5	2.2	105	516	294	25.92	4.63	20.37	972	4777	7	0
8	1.130	2.86	3.44	3.15	3.86	0.02	1.287	5.8	7.2		1.2	0.1	2.0	97	496	288	11.31	0.94	18.85	917	4674	8	0
9	1.100	3.22	3.23	2.90	3.64	0.03	1.072															9	0.1
10	1.090	3.41	3.50	1.93	3.62	0.02	1.270															10	0
11	1.140	3.21	3.61	2.81	4.01	0.02	1.066															11	0
12	1.110	3.41	3.81	3.20	3.90	0.02	1.132	6.8	7.5		2.6	0.1	3.1	153	844	242	24.07	0.93	28.70	1416	7813	12	0
13	1.070	3.53	3.73	3.43	3.53	0.02	1.123															13	0
14	1.110	3.61	3.81	3.62	3.12	0.03	0.941	6.9	7.4	2	11.0	0.1	5.6	151	716	230	101.83	0.93	51.84	1398	6628	14	1
15	1.260	3.88	3.97	3.84	4.14	0.01	1.189															15	1
16	1.230	3.85	3.95	3.93	4.04	0.01	1.283															16	0
17	1.250	3.91	4.00	3.94	4.12	0.02	1.471															17	1.5
18	1.180	3.74	3.93	3.74	4.34	0.01	1.119															18	0
19	1.140	3.84	3.85	3.63	4.25	0.01	1.392	7.0	7.5	2	4.0	0.1	6.2	157	624	224	38.03	0.95	58.95	1493	5933	19	0
20	1.200	3.71	3.75	3.53	4.05	0.02	0.914															20	0
21	1.150	3.81	3.85	3.91	4.12	0.02	1.150	6.5	7.2		3.8	0.1	3.5	162	852	212	36.45	0.96	33.57	1554	8172	21	0
22	1.170	3.61	3.75	4.01	4.32	0.02	0.918															22	0
23	1.210	3.81	3.73	4.03	4.25	0.01	1.487															23	0
24	1.270	3.85	3.82	3.81	4.05	0.04	1.147															24	0
25	1.220	3.93	3.28	1.95	2.03	0.02	1.276															25	0
26	1.180	4.44	3.54	3.46	2.71	0.03	1.233	7.0	7.4		1.8	0.1	4.0	160	724	244	17.71	0.98	39.36	1575	7125	26	0
27	1.160	4.15	3.85	3.63	2.92	0.02	1.015															27	0
28	1.100	3.91	3.95	3.81	3.52	0.01	1.078	6.6	7.6	2	1.9	0.1	2.0	153	756	250	17.43	0.92	18.35	1404	6936	28	0
29	1.120	4.16	3.84	3.45	3.15	0.00	0.649															29	0
30	1.060	3.90	3.83	3.62	3.24	0.01	1.123															30	0
31																						31	
Average Lbs/ Day:											**34.09**	**1.40**	**33.75**	**1341**	**6507**								
AVG	**1.136**						**1.136**			**2**	**3.64**	**0.15**	**3.58**	**142**	**691**								
MIN	**1.000**	**1.93**					**0.649**	**4.7**	**7.2**	**2**	**1.2**	**0.1**	**2.0**	**97**	**496**		**11.31**	**0.92**	**18.35**	**917**	**4674**		**0.00**
MAX	**1.370**	**4.44**				**0.05**	**1.773**		**7.9**	**2**	**11.0**	**0.5**	**6.2**	**162**	**852**		**101.83**	**4.63**	**58.95**	**1575**	**8172**		**1.50**

2-Hour Peak Flow, <5,000 GPM:
1,944

Monthly Average Flows								
	01/23	0.940	04/23	0.957	07/23	1.059	10/22	0.939
	02/23	0.922	05/23	1.054	08/23	1.136	11/22	0.938
	03/23	0.935	06/23	0.993	09/23	1.136	12/22	0.954
			Annual Average Flow:				**0.997**	

Total **3.60**

Reading 9/1/2023 153494
Reading 10/1/2023 187588
# of days Total Flow 30
Daily Average Flow= **1.136**

Reading 10/1/2022 130414 0
Reading 10/1/2023 306900 187588
Annual Average Flow: **0.997** **MGD**
Capacity: **63%**

A storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

1 additional DO & pH - 9 total

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **October 2023**

TX0124907	Grab Samples					Grab Samples			Grab	Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	1.100	3.82	3.74	3.52	3.24	0.04	1.448															1	0
2	1.170	3.74	3.64	3.44	3.44	0.02	1.330															2	0
3	1.130	3.81	3.41	3.32	3.51	0.02	1.134	6.9	7.4		1.4	0.1	3.9	158	992	246	13.19	0.94	36.75	1489	9349	3	0
4	1.290	4.03	3.83	3.81	3.94	0.00	1.373															4	0.75
5	1.220	3.61	2.61	2.71	3.11	0.00	1.154	7.5	8.1	2	1.6	0.1	7.0	158	816	258	16.28	1.02	71.22	1608	8303	5	3.25
6	1.610	3.41	3.41	3.85	3.83	0.00	1.512															6	0.15
7	1.280	3.62	3.65	3.85	3.91	0.02	0.964															7	0.2
8	1.310	3.64	3.73	3.82	3.94	0.00	1.006															8	0.2
9	0.001	1.27	2.65	2.81	3.12	0.00	0.991															9	0.2
10	1.110	3.13	3.43	3.21	3.43	0.00	1.274	7.5	7.4		2.7	0.1	2.0	143	836	218	24.99	0.93	18.51	1324	7739	10	0
11	1.110	3.02	3.22	3.42	3.22	0.01	1.297															11	0
12	1.170	3.61	3.83	3.81	3.31	0.00	1.041	6.5	7.4	2	2.3	0.2	3.7	159	820	228	22.44	1.95	36.10	1551	8001	12	0
13	1.160	3.83	3.43	3.13	3.65	0.00	0.694															13	0
14	1.070	3.72	3.14	2.92	3.44	0.02	1.046															14	0
15	1.005	3.51	3.23	3.01	3.52	0.03	1.286															15	0
16	1.113	3.66	3.86	3.86	3.95	0.01	1.321															16	0
17	1.080	3.01	4.11	3.72	3.11	0.00	0.907	8.1	7.5		2.4	0.1	5.3	149	720	228	21.62	0.90	47.74	1342	6485	17	0
18	1.120	4.59	4.98	4.69	4.89	0.06	1.308															18	0
19	1.130	4.30	4.80	4.38	4.68	0.06	1.075	6.3	7.6	2	6.0	0.1	2.3	153	866	222	56.55	0.94	21.68	1442	8161	19	0
20	1.120	3.89	4.19	4.19	4.09	0.03	1.234															20	0
21	1.180	3.23	4.11	4.37	4.13	0.02	1.140															21	0
22	1.220	3.80	4.17	4.20	4.32	0.02	0.932															22	0
23	1.160	3.03	4.43	3.83	3.83	0.03	1.313															23	0
24	1.170	3.21	4.21	3.61	3.71	0.02	0.964	6.9	7.3		2.8	1.2	6.6	150	744	258	27.32	11.71	64.40	1464	7260	24	0
25	1.180	3.54	4.44	3.85	3.95	0.04	1.052															25	0
26	1.200	3.81	4.11	3.61	3.81	0.01	1.542	7.9	7.1	2	2.0	0.2	3.5	152	800	248	20.02	2.00	35.03	1521	8006	26	1.15
27	1.290	2.93	4.64	3.85	2.85	0.02	1.023															27	2.25
28	1.366	3.33	4.43	3.65	3.56	0.02	1.111															28	2
29	1.280	3.66	4.32	3.76	3.84	0.03	1.386															29	0
30	1.230	3.81	3.91	3.81	3.41	0.02	1.480															30	0.75
31	1.200	3.34	4.15	3.14	3.84	0.06	0.783	7.8	7.3		2.7	0.6	3.4	147	748	260	27.02	6.00	34.03	1471	7486	31	0
Average Lbs/ Day:											**25.49**	**2.93**	**40.61**	**1468**	**7866**								
AVG	**1.165**						**1.165**			**2**	**2.66**	**0.30**	**4.19**	**152**	**816**								
MIN	**0.001**		**1.27**				**0.694**	**6.3**	**7.1**	**2**	**1.4**	**0.1**	**2.0**	**143**	**720**		**13.19**	**0.90**	**18.51**	**1324**	**6485**		**0.00**
MAX	**1.610**		**4.98**			**0.06**	**1.542**		**8.1**	**2**	**6.0**	**1.2**	**7.0**	**159**	**992**		**56.55**	**11.71**	**71.22**	**1608**	**9349**		**3.25**

2-Hour Peak Flow, <5,000 GPM:
1,750

Monthly Average Flows								
	01/23	0.940	04/23	0.957	07/23	1.059	10/23	1.165
	02/23	0.922	05/23	1.054	08/23	1.136	11/22	0.938
	03/23	0.935	06/23	0.993	09/23	1.136	12/22	0.954
			Annual Average Flow:				**1.016**	

Total **10.9**

Reading	10/1/2023	187588	Reading	11/1/2022	159508	0
Reading	11/1/2023	223709	Reading	11/1/2023	306900	223709
# of days		31	**Annual Average Flow:**		**1.017**	**MGD**
Daily Average Flow=		**1.165**	**Capacity:**		**65%**	

4/6/2023 A storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **November 2023**

TX0124907

		Grab Samples					Grab Samples			Composite Samples													
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	>1.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit	MGD	Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	1.110	3.83	3.93	3.84	3.63	0.04	1.287															1	0
2	1.150	3.41	3.61	4.12	3.94	0.03	0.916	7.3	7.6	2	2.6	0.5	3.5	152	850	240	24.94	4.80	33.57	1458	8152	2	0
3	1.100	1.56	4.84	5.28	5.38	0.06	1.466															3	0
4	1.240	2.43	3.91	4.21	4.84	0.03	1.033															4	0
5	1.200	3.41	4.24	4.80	4.99	0.04	0.775															5	0
6	1.110	4.44	4.44	4.14	4.44	0.02	1.422															6	0
7	1.100	2.79	3.89	3.81	3.59	0.02	1.206	6.8	7.4		1.6	0.3	2.7	90	618	294	14.68	2.75	24.77	826	5670	7	0
8	1.180	3.84	4.35	4.01	3.92	0.05	1.172															8	0
9	1.230	5.11	1.51	3.83	5.01	0.03	1.073	7.6	7.4	2	2.3	0.8	3.2	150	994	238	23.59	8.21	32.83	1539	10197	9	0
10	1.340	4.09	3.59	4.08	4.19	0.02	1.678															10	1.15
11	1.330	3.90	3.50	3.80	3.75	0.03	0.667															11	0
12	1.130	3.90	3.41	3.90	3.80	0.02	1.470															12	0
13	1.200	4.23	3.93	3.63	4.54	0.03	1.012															13	1.25
14	1.100	3.74	3.73	3.79	3.91	0.02	1.131	7.9	7.4		3.2	0.1	2.7	140	924	220	29.36	0.92	24.77	1284	8477	14	0.5
15	1.000	4.31	3.31	4.02	3.31	0.03	0.790															15	0
16	0.880	1.82	2.42	4.13	3.83	0.02	0.786	7.9	7.3	2	3.2	0.1	2.0	144	832	206	23.49	0.73	14.68	1057	6106	16	0
17	0.930	3.44	3.15	3.01	3.76	0.00	1.068															17	0
18	1.605	3.65	3.72	3.40	3.94	0.04	0.911															18	0
19	1.240	3.81	3.51	3.99	3.91	0.04	0.668															19	0
20	0.860	4.16	3.79	3.64	3.43	0.05	0.863	7.9	7.4													20	0
21	0.930	4.01	3.41	3.83	3.84	0.02	0.779	6.6	7.8	2	4.1	0.3	4.4	118	786	238	31.80	2.33	34.13	915	6096	21	0
22	0.860	3.84	3.79	4.04	4.33	0.05	0.829	7.5	7.3		1.4	0.2	2.0	124	812	242	10.04	1.43	14.34	889	5824	22	0
23	0.870	3.90	3.80	3.80	3.81	0.01	0.915															23	0
24	0.940	3.81	3.71	3.71	3.92	0.01	0.828															24	0
25	0.820	3.72	3.82	3.92	3.81	0.01	0.880															25	0
26	0.880	3.71	3.81	3.72	3.82	0.01	1.319															26	0
27	0.970	1.30	4.75	2.50	1.34	0.08	0.826															27	0
28	0.890	3.06	3.34	3.14	3.31	0.04	1.021	8.5	7.5		4.0	0.4	4.5	143	900	244	29.69	2.97	33.40	1061	6680	28	0
29	0.900	2.90	2.49	4.02	4.42	0.06	1.107															29	0
30	0.940	2.20	3.01	3.39	3.31	0.04	0.889	7.7	7.2	2	3.8	0.3	3.0	149	780	230	29.79	2.35	23.52	1168	6115	30	0.15
31																						31	
Average Lbs/ Day:											**24.15**	**2.94**	**26.22**	**1133**	**7035**								
AVG	**1.026**						**1.026**			**2**	**2.91**	**0.33**	**3.11**	**134**	**833**								
MIN	**0.820**	**1.30**					**0.667**	**6.6**	**7.2**	**2**	**1.4**	**0.1**	**2.0**	**90**	**618**		**10.04**	**0.73**	**14.34**	**826**	**5670**		**0.00**
MAX	**1.605**	**5.38**				**0.08**	**1.678**		**7.8**	**2**	**4.1**	**0.8**	**4.5**	**152**	**994**		**31.80**	**8.21**	**34.13**	**1539**	**10197**		**1.25**

2-Hour Peak Flow, <5,000 GPM:
1,506

Monthly Average Flows								
	01/23	0.940	04/23	0.957	07/23	1.059	10/23	1.165
	02/23	0.922	05/23	1.054	08/23	1.136	11/23	1.026
	03/23	0.935	06/23	0.993	09/23	1.136	12/22	0.954

Total **3.05**

Annual Average Flow: **1.023**

Reading 12/1/2022 187649 0
Reading 12/1/2023 306900 254496

Reading 11/1/2023 223709
Reading 12/1/2023 254496
# of days 30
Daily Average Flow= **1.02623**

Annual Average Flow: **1.024** **MGD**
Capacity: **57%**

10 total, 1 additional DO & pH

4/6/2023 A storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **December** **2023**

TX0124907

		Grab Samples						Grab Samples			Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	15	3	10	Report	739	NA	225	45	150	Report	11094	Day	
1	1.050	2.81	3.10	3.20	3.40	0.03	1.017															1	0.15
2	1.000	2.69	3.51	3.73	3.52	0.03	0.762															2	0
3	0.910	3.18	3.82	3.81	3.41	0.04	0.890															3	0
4	0.920	3.29	3.57	2.99	3.77	0.04	0.894															4	0
5	0.810	2.81	3.01	3.30	4.13	0.03	0.655	6.8	7.2		2.1	0.1	2.6	137	856	228	14.19	0.68	17.56	925	5783	5	0
6	0.880	5.07	4.29	3.97	2.14	0.06	1.064															6	0
7	0.820	4.09	3.33	3.41	1.83	0.04	0.811	7.5	7.4	2	3.3	0.1	2.1	139	746	208	22.57	0.68	14.36	951	5102	7	0
8	0.860	3.81	3.83	3.12	1.74	0.03	1.041															8	0.15
9	0.990	3.91	3.81	3.10	3.34	0.04	0.438															9	0
10	0.930	3.80	3.81	3.22	3.23	0.03	1.130															10	2.5
11	0.930	4.39	3.97	1.86	2.19	0.04	1.047															11	0
12	0.980	3.77	3.45	3.09	3.81	0.03	0.850	7.5	7.3		3.0	0.1	2.9	157	724	206	24.52	0.82	23.70	1283	5917	12	0
13	0.890	3.04	3.49	2.49	5.04	0.06	0.965															13	0.15
14	0.860	3.51	3.41	3.01	3.98	0.04	0.886	7.1	7.5	2	2.1	0.1	2.9	157	850	208	15.06	0.72	20.80	1126	6097	14	0
15	0.960	2.78	2.84	3.47	2.62	0.02	1.134															15	0
16	1.020	3.30	2.91	3.69	4.22	0.02	0.809															16	1
17	1.040	3.41	3.41	3.39	3.93	0.02	0.548															17	0
18	0.900	1.81	2.84	2.77	2.59	0.02	0.927															18	0
19	0.920	2.28	3.61	3.46	3.47	0.04	0.985	8.1	7.2		4.1	2.5	4.7	154	836	250	31.46	19.18	36.06	1182	6414	19	0
20	0.940	2.81	3.08	3.11	2.81	0.02	1.225															20	0
21	0.930	3.08	3.76	3.75	3.59	0.00	0.491	7.8	7.4	2	3.9	0.2	4.4	152	712	234	30.25	1.55	34.13	1179	5522	21	0
22	0.880	3.20	3.67	3.77	3.70	0.01	0.928															22	0
23	0.930	3.01	3.59	3.68	3.79	0.02	0.939															23	0
24	0.960	2.88	3.80	3.80	3.52	0.02	1.286															24	0
25	1.022	3.20	3.58	4.00	3.91	0.04	0.627															25	0
26	0.890	3.07	2.89	2.87	3.48	0.06	0.914															26	0
27	0.920	2.84	2.92	3.15	2.70	0.07	0.898	6.6	7.7		6.4	1.4	4.1	152	784	248	49.11	10.74	31.46	1166	6015	27	0
28	0.910	2.38	2.56	2.47	2.29	0.05	0.852	8.2	7.3	2	2.1	1.3	2.0	152	756	248	15.94	9.87	15.18	1154	5738	28	0
29	0.850	2.83	2.32	3.16	2.90	0.06	0.895															29	0
30	0.920	2.94	2.65	3.42	3.21	0.04	0.861															30	0
31	0.960	3.04	2.82	3.52	3.39	0.02	0.943															31	0
	flow	Chlorine mg/l				dechlor		DO	pH	E. coli	TSS	NH3-N	CBOD	Chloride	TDS	Alkalinity							
Average Lbs/ Day:											**25.39**	**5.53**	**24.16**	**1121**	**5824**								
AVG	**0.894**						**0.894**			**2**	**3.38**	**0.73**	**3.21**	**150**	**783**								
MIN	**0.810**	**1.74**					**0.438**	**6.6**	**7.2**	**2**	**2.1**	**0.1**	**2.0**	**137**	**712**		**14.19**	**0.68**	**14.36**	**925**	**5102**		**0.00**
MAX	**1.050**	**5.07**				**0.07**	**1.286**		**7.7**	**2**	**6.4**	**2.5**	**4.7**	**157**	**856**		**49.11**	**19.18**	**36.06**	**1283**	**6414**		**2.50**

2-Hour Peak Flow, <5,000 GPM:
1,215

Monthly Average Flows								
	01/23	0.940	04/23	0.957	07/23	1.059	10/23	1.165
	02/23	0.922	05/23	1.054	08/23	1.136	11/23	1.026
	03/23	0.935	06/23	0.993	09/23	1.136	12/23	0.894
			Annual Average Flow:				**1.018**	

Total **3.95**

Reading 12/1/2023 254496
Reading 1/1/2024 282208
# of days 31
Daily Average Flow= **0.893935**

Reading 1/1/2023 217236 0
Reading 1/1/2024 306900 282208
Total
Annual Average Flow: **1.019** **MGD**
Capacity: **50%**

A storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM I PHASE **January 2024**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	0.940	2.95	2.36	3.35	3.22	0.02	1.032															1	0
2	0.920	3.45	2.84	3.59	3.50	0.04	1.186	7.2	7.4													2	0
3	0.950	2.91	1.81	3.03	2.84	0.04	0.793															3	0
4	0.910	3.49	2.79	2.79	3.49	0.03	0.890	8.1	7.4	2	244	3.4	0.1	3.0	153	860	25.80	0.76	22.77	1161	6527	4	0
5	0.910	3.13	3.13	3.23	3.01	0.02	0.808	6.9	7.4		228	2.8	0.4	2.4	149	880	21.25	3.04	18.21	1131	6679	5	2.5
6	1.060	3.22	3.05	3.12	3.12	0.02	0.916															6	0
7	0.910	3.02	2.94	3.21	3.43	0.01	1.355															7	0
8	0.990	2.53	3.51	2.89	3.13	0.02	1.025															8	0
9	1.000	2.99	2.59	3.78	2.92	0.01	0.973	8.9	7.3		290	1.2	0.2	2.0	91	576	10.01	1.67	16.68	755	4804	9	1.75
10	0.990	3.83	3.42	3.41	2.63	0.02	0.981															10	0
11	0.980	4.47	3.79	3.77	3.77	0.06	0.611	7.6	7.4	2	248	3.1	1.1	3.5	160	696	25.34	8.99	28.61	1308	5689	11	0
12	0.950	3.31	3.03	3.52	3.31	0.02	0.938															12	1.15
13	0.950	3.10	3.42	3.62	3.54	0.02	1.096															13	1.35
14	0.990	3.33	3.62	3.80	3.53	0.02	0.805															14	0
15	0.910	3.21	3.51	3.71	3.61	0.02	1.208															15	0.5
16	1.160	3.30	3.84	3.72	3.42	0.02	1.646	8.5	7.7		244	2.2	0.4	2.5	154	800	21.28	3.87	24.19	1490	7740	16	0
17	1.300	3.81	4.51	3.01	2.83	0.00	0.826															17	0
18	1.110	3.49	1.24	4.17	5.41	0.05	1.014	7.8	7.8	2	226	2.6	0.1	2.0	147	832	24.07	0.93	18.51	1361	7702	18	0
19	0.980	3.63	6.57	3.49	4.33	0.06	0.643															19	0
20	1.720	3.71	4.67	3.78	4.81	0.05	0.980															20	0
21	0.324	3.52	4.40	3.68	4.52	0.08	1.382															21	0
22	0.950	3.64	3.44	2.89	2.57	0.04	0.968															22	2.5
23	1.180	3.31	3.01	3.41	3.79	0.02	1.347	8.3	7.3		224	7.0	1.3	2.0	154	684	68.89	12.79	19.68	1516	6731	23	3.5
24	1.140	3.83	3.82	3.01	4.31	0.04	1.317															24	4.75
25	1.370	3.11	3.13	3.49	3.82	0.02	0.940	7.4	7.4	2	186	4.4	0.7	2.6	138	688	50.27	8.00	29.71	1577	7861	25	2.5
26	0.970	3.83	3.81	3.11	3.61	0.06	1.150															26	0
27	1.140	3.52	3.61	3.39	3.84	0.04	0.867															27	0
28	1.180	3.33	3.41	3.22	3.61	0.03	0.944															28	0
29	0.950	offline	3.59	3.78	3.82	0.02	0.643															29	0
30	0.980	offline	3.31	3.11	4.12	0.04	1.169	8.2	7.1		210	12.3	0.3	2.5	159	896	100.53	2.45	20.43	1300	7323	30	0
31	0.910	offline	3.73	2.99	3.58	0.02	0.903															31	0

	24 hr flow	Chlorine	TCR	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS							
Average Lbs/ Day:								**38.60**	**4.72**	**22.09**	**1289**	**6784**							
AVG	**1.011**					**2**		**4.33**	**0.51**	**2.50**	**145**	**768**							
MIN	**0.324**	**1.24**		**6.9**	**7.1**	**2**		**1.2**	**0.1**	**2.0**	**91**	**576**	**10.01**	**0.76**	**16.68**	**755**	**4804**		**0.00**
MAX	**1.720**	**6.57**	**0.08**		**7.8**	**2**		**12.3**	**1.3**	**3.5**	**160**	**896**	**100.53**	**12.79**	**29.71**	**1577**	**7861**		**4.75**

2-Hour Peak Flow, <5,000 GPM:
1,555

Monthly Average Flows								
	01/24	1.011	04/23	0.957	07/23	1.059	10/23	1.165
	02/23	0.922	05/23	1.054	08/23	1.136	11/23	1.026
	03/23	0.935	06/23	0.993	09/23	1.136	12/23	0.894
			Annual Average Flow:				**1.024**	

Total **20.5**

1 additional DO & pH - 10 total

Reading	1/1/2024	282208	
Reading	2/1/2024	313564	
# of days		31	
Daily Average Flow=		**1.011**	**MGD**

		old	new
Reading	2/1/2023	246384	0
Reading	2/1/2024	306900	313564
	Total		
Annual Average Flow:		**1.025**	**MGD**
Capacity:		**56%**	

4/6/2023 storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **February 2024**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	0.980	offline	3.62	3.40	3.80	0.03	0.777	8.6	7.3	2	222	4.0	0.1	4.1	148	740	32.69	0.82	33.51	1210	6048	1	0
2	0.890	offline	4.11	3.31	3.11	0.04	0.688															2	0
3	0.840	offline	3.79	3.73	3.20	0.03	1.000															3	0
4	1.080	offline	3.70	3.62	3.20	0.03	1.265															4	1.5
5	0.960	offline	3.14	3.41	3.83	0.02	0.897															5	0.75
6	0.910	offline	3.79	3.13	3.11	0.01	0.769	8.5	7.2		240	3.9	0.2	4.1	159	800	29.60	1.52	31.12	1207	6072	6	0
7	0.990	offline	5.01	1.59	5.78	0.01	1.006															7	0
8	0.900	offline	4.06	2.81	4.31	0.02	0.869	6.9	7.4	2	220	7.1	0.1	3.7	165	896	53.29	0.75	27.77	1238	6725	8	0
9	0.950	offline	3.81	3.12	4.01	0.01	0.960															9	0
10	0.920	offline	3.09	3.39	3.81	0.03	0.845															10	0
11	0.940	offline	3.81	2.93	4.09	0.01	1.081															11	0.5
12	0.960	offline	3.68	3.19	3.67	0.02	0.778															12	0
13	0.920	offline	5.61	1.79	5.11	0.00	0.730	8.1	7.3		232	1.7	0.2	5.7	158	820	13.04	1.53	43.73	1212	6292	13	0
14	0.730	offline	4.01	1.41	5.51	0.01	0.984															14	0
15	0.720	offline	3.79	2.23	4.61	0.01	0.679	7.2	7.2	2	222	7.5	0.2	3.7	154	780	45.04	1.20	22.22	925	4684	15	0
16	0.800	offline	4.09	2.69	4.32	0.02	0.671															16	0.15
17	0.092	offline	4.13	2.91	4.60	0.01	1.117															17	0
18	1.030	offline	3.80	2.83	4.27	0.03	0.916															18	0
19	1.430	offline	3.68	2.69	3.86	0.02	0.647															19	0
20	0.900	offline	4.01	2.99	4.11	0.01	1.163	7.9	7.1		208	5.6	0.1	2.2	153	852	42.03	0.75	16.51	1148	6395	20	0
21	0.880	offline	3.77	3.17	3.77	0.02	0.916															21	0
22	0.940	offline	3.58	2.08	3.68	0.01	0.878	6.2	7.5	2	206	6.5	0.1	2.5	155	992	50.96	0.78	19.60	1215	7777	22	0
23	0.910	offline	3.70	2.41	4.10	0.01	0.639															23	0
24	0.850	offline	3.50	2.70	3.90	0.01	0.826															24	0
25	0.850	offline	3.29	2.39	3.99	0.01	1.180															25	0
26	0.920	offline	3.67	2.57	4.17	0.02	0.829									810					6215	26	0
27	0.920	offline	3.11	2.33	4.01	0.01	0.972	7.5	7.2		234	5.4	0.2	5.3	152	739	41.43	1.53	40.67	1166	5670	27	0
28	0.910	offline	3.30	2.55	4.23	0.01	0.838									776					5889	28	0
29	0.920	offline	3.78	2.59	3.89	0.06	1.081	7.8	7.5	2	218	5.0	0.1	2.1	152	756	38.36	0.77	16.11	1166	5801	29	0
30																						30	
31																						31	

	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS						
Average Lbs/ Day:												**38.49**	**1.07**	**27.92**	**1165**	**6143**						
AVG	**0.897**						**0.897**			**2**		**5.19**	**0.14**	**3.71**	**155**	**815**						
MIN	**0.092**		**1.41**				**0.639**	**6.2**	**7.1**	**2**		**1.7**	**0.1**	**2.1**	**148**	**739**	**13.04**	**0.75**	**16.11**	**925**	**4684**	**0.00**
MAX	**1.430**		**5.78**			**0.06**	**1.265**		**7.5**	**2**		**7.5**	**0.2**	**5.7**	**165**	**992**	**53.29**	**1.53**	**43.73**	**1238**	**7777**	**1.50**

2-Hour Peak Flow, <5,000 GPM:
1,118

Monthly Average Flows	01/24	1.011	04/23	0.957	07/23	1.059	10/23	1.165
	02/24	0.897	05/23	1.054	08/23	1.136	11/23	1.026
	03/23	0.935	06/23	0.993	09/23	1.136	12/23	0.894
			Annual Average Flow:				**1.022**	

Total **2.9**

TDS 3 additional - 12 total

Reading 2/1/2024 313564
Reading 3/1/2024 339565

29
# of days 28
Daily Average Flow= **0.896586**

		old	new
Reading	3/1/2023	272198	0
Reading	3/1/2024	306900	339565
	Total		
Annual Average Flow:		**1.025**	**MGD**
Capacity:		**50%**	

storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **March 2024**

TX0124907

DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	0.890	offline	4.07	2.73	3.77	0.04	0.595															1	0
2	0.860	offline	4.29	2.91	3.89	0.05	0.816															2	0
3	0.890	offline	3.81	2.61	3.91	0.03	1.355															3	0
4	0.940	offline	2.43	1.83	2.58	0.00	0.816															4	0
5	1.000	offline	1.33	1.04	1.91	0.03	1.068	7.3	7.1		248	5.8	1.2	3.7	148	752	48.37	10.01	30.86	1234	6272	5	0
6	1.000	offline	1.89	2.89	5.45	0.04	0.927															6	0
7	0.980	offline	2.95	2.68	4.57	0.05	0.889	7.1	7.4	1	210	8.7	0.1	4.0	158	680	71.11	0.82	32.69	1291	5558	7	0
8	0.920	offline	3.79	6.25	7.05	0.09	0.655															8	0
9	0.920	offline	3.56	5.13	6.33	0.06	0.829															9	0
10	0.800	offline	3.65	5.35	5.95	0.06	0.844															10	0
11	0.770	offline	3.78	4.97	5.77	0.05	0.770															11	0
12	0.750	offline	3.46	2.04	4.16	0.05	0.673	7.8	7.3		196	5.1	0.2	4.2	168	970	31.90	1.25	26.27	1051	6067	12	0
13	0.800	offline	3.82	3.71	3.90	0.08	0.976															13	0
14	0.760	offline	3.59	2.41	6.08	0.08	0.725	7.7	7.4		198	4.9	0.2	5.2	166	860	31.06	1.27	32.96	1052	5451	14	0
15	0.740	offline	5.47	3.59	4.31	0.04	0.637			1												15	0
16	0.740	offline	4.20	3.70	4.51	0.04	0.985															16	0
17	1.600	offline	4.73	3.61	4.33	0.03	0.882															17	0
18	0.880	offline	3.61	2.73	4.29	0.08	0.615															18	0
19	0.800	offline	3.70	4.40	4.40	0.02	0.941	8.1	7.6		214	4.0	0.1	3.5	167	900	26.69	0.67	23.35	1114	6005	19	0
20	0.830	offline	3.80	4.40	4.40	0.02	1.137															20	0
21	0.970	offline	3.47	4.17	4.07	0.02	1.193	8.0	7.4		204	3.1	0.1	4.5	157	790	25.08	0.81	36.40	1270	6391	21	0
22	1.120	offline	3.71	3.41	3.79	0.01	0.690			1												22	3.5
23	1.070	offline	5.08	2.83	4.27	0.05	0.936															23	0
24	0.990	offline	3.61	3.18	3.01	0.01	1.305															24	0
25	1.040	4.38	4.28	2.77	4.09	0.05	0.756															25	1.15
26	0.820	1.43	3.29	3.31	5.21	0.03	0.920	8.5	7.2		196	2.8	0.3	2.0	160	790	19.15	2.05	13.68	1094	5403	26	0
27	0.910	5.39	5.49	5.57	6.59	0.05	0.929															27	0
28	0.880	4.04	3.81	4.11	4.71	0.02	0.935	7.3	7.5	1	178	4.2	0.1	2.0	158	830	30.82	0.73	14.68	1160	6092	28	0
29	0.880	3.91	4.00	3.68	3.01	0.01	0.935															29	0
30	1.040	4.19	4.20	3.88	4.38	0.03	0.474															30	0
31	0.900	4.43	4.22	4.71	4.81	0.02	1.218															31	0
	24 Hour		Chlorine mg/l			TCR mg/	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS							
Average Lbs/ Day:												**35.52**	**2.20**	**26.36**	**1158**	**5905**							
AVG	**0.885**						**0.885**			**1**		**4.83**	**0.29**	**3.64**	**160**	**822**							
MIN	**0.740**	**1.04**					**0.474**	**7.1**	**7.1**	**1**		**2.8**	**0.1**	**2.0**	**148**	**680**	**19.15**	**0.67**	**13.68**	**1051**	**5403**		**0.00**
MAX	**1.600**	**7.05**				**0.09**	**1.355**		**7.6**	**1**		**8.7**	**1.2**	**5.2**	**168**	**970**	**71.11**	**10.01**	**36.40**	**1291**	**6391**		**3.50**

2-Hour Peak Flow, <5,000 GPM:
1,610

Monthly Average Flows								
	01/24	1.011	04/23	0.957	07/23	1.059	10/23	1.165
	02/24	0.897	05/23	1.054	08/23	1.136	11/23	1.026
	03/24	0.885	06/23	0.993	09/23	1.136	12/23	0.894
			Annual Average Flow:				**1.018**	

Total **4.65**

Reading 3/1/2024 339565
Reading 4/1/2024 366991
# of days 31
Daily Average Flow= **0.885**

		old	new
Reading	4/1/2023	301194	0
Reading	4/1/2024	306900	366991
Annual Average Flow:		**1.021**	**MGD**
Capacity:		**49%**	

4/6/2023 storm took out the final flow meter and flow chart, CFI replaced both and calibrated (Dan C)

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **April 2024**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	0.770	4.11	3.60	3.69	4.10	0.04	1.075															1	0
2	0.730	3.80	3.58	3.41	3.89	0.03	0.606	7.1	7.2		202	4.3	0.1	3.8	157	780	26.18	0.61	23.14	956	4749	2	0
3	0.890	3.69	3.71	3.70	3.67	0.05	0.847															3	0
4	0.820	3.82	3.50	3.48	3.78	0.04	0.807	6.9	7.5		192	4.0	0.1	3.0	158	860	27.36	0.68	20.52	1081	5881	4	0
5	0.800	3.58	3.78	3.79	3.62	0.03	0.884			1												5	0
6	0.850	3.71	3.71	3.71	3.91	0.02	0.936															6	0
7	0.880	3.60	3.80	4.00	4.10	0.03	0.851															7	0
8	0.940	3.78	3.79	3.78	3.78	0.04	1.043															8	0
9	0.940	3.69	3.59	3.59	4.19	0.05	1.153	7.5	7.2		232	2.1	0.8	2.0	157	890	16.46	6.27	15.68	1231	6977	9	0
10	0.890	3.40	3.48	3.72	3.80	0.04	1.080															10	3.5
11	1.180	3.77	3.80	3.80	3.71	0.03	0.732	7.3	7.6	1	190	2.9	0.1	2.3	138	800	28.54	0.98	22.63	1358	7873	11	0
12	0.830	3.61	3.72	3.71	3.79	0.05	0.688															12	0
13	0.820	3.79	4.09	2.58	4.31	0.04	0.863															13	0
14	0.830	3.11	3.89	3.11	3.47	0.02	1.205															14	0
15	0.950	3.50	3.82	3.43	3.69	0.03	0.906															15	0
16	0.950	3.73	3.50	3.22	3.60	0.04	0.644	7.3	7.5		214	3.8	0.1	2.6	164	830	30.11	0.79	20.60	1299	6576	16	0
17	0.980	3.60	3.64	3.50	3.81	0.03	1.182															17	0
18	0.920	3.53	3.73	3.74	4.03	0.02	0.641	6.8	7.5		224	4.0	0.1	3.1	154	770	30.69	0.77	23.79	1182	5908	18	0
19	0.860	3.29	3.50	3.81	3.74	0.04	1.178			2												19	0
20	0.980	3.73	3.80	3.80	3.93	0.04	0.661															20	0
21	0.920	3.30	3.51	3.50	4.01	0.03	1.167															21	0.5
22	0.960	3.52	3.37	3.58	3.80	0.04	0.825															22	0
23	0.890	3.62	3.62	3.81	4.12	0.03	0.882	7.7	7.5		224	5.5	0.1	6.3	155	1050	40.82	0.74	46.76	1151	7794	23	0
24	0.880	3.41	3.71	3.98	4.19	0.04	0.947															24	0
25	0.900	3.68	3.48	4.08	4.28	0.03	0.657	7.4	7.7		218	5.2	0.1	2.3	158	910	39.03	0.75	17.26	1186	6830	25	0
26	0.920	3.59	3.59	3.77	3.71	0.05	1.047			1												26	0
27	0.910	3.77	3.67	3.40	4.17	0.03	0.944															27	0
28	0.930	3.80	3.40	3.65	3.95	0.03	0.872															28	0
29	0.980	3.61	3.59	3.57	3.78	0.04	0.685															29	1
30	0.990	3.69	3.68	3.78	3.57	0.05	1.281	7.2	7.7		228	9.3	0.4	5.9	148	860	76.79	3.30	48.71	1222	7101	30	0
31																						31	
	24 Hour	Chlorine mg/l				TCR mg/	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS							
Average Lbs/ Day:												**35.11**	**1.66**	**26.57**	**1185**	**6632**							
AVG	**0.910**						**0.910**			**1**		**4.57**	**0.21**	**3.48**	**154**	**861**							
MIN	**0.730**	**2.58**					**0.606**	**6.8**	**7.2**	**1**		**2.1**	**0.1**	**2.0**	**138**	**770**	**16.46**	**0.61**	**15.68**	**956**	**4749**	**0.00**	
MAX	**1.180**	**4.31**				**0.05**	**1.281**		**7.7**	**2**		**9.3**	**0.8**	**6.3**	**164**	**1050**	**76.79**	**6.27**	**48.71**	**1358**	**7873**	**3.50**	

2-Hour Peak Flow, <5,000 GPM:
1,069

Monthly Average Flows								
	01/24	1.011	04/24	0.910	07/23	1.059	10/23	1.165
	02/24	0.897	05/23	1.054	08/23	1.136	11/23	1.026
	03/24	0.885	06/23	0.993	09/23	1.136	12/23	0.894
			Annual Average Flow:				**1.014**	

Total **5.00**

Reading 4/1/2024 366991
Reading 5/1/2024 394280
# of days 30
Daily Average Flow= **0.90963**

Reading 5/1/2023 22990
Reading 5/1/2024 394280
Annual Average Flow: **1.017** **MGD**
Capacity: **51%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **May 2024**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	0.940	3.78	3.50	3.62	3.70	0.03	1.154															1	0
2	1.010	3.40	3.60	3.30	3.80	0.05	1.581	7.1	6.8		226	11.6	0.1	5.0	148	980	97.71	0.84	42.12	1247	8255	2	1
3	1.670	3.04	3.01	2.92	3.23	0.04	1.528			15												3	2.3
4	1.390	3.41	3.81	2.39	4.07	0.02	0.826															4	3.5
5	0.920	2.60	2.60	2.10	3.63	0.01	1.514															5	1.75
6	1.220	2.83	2.83	2.54	3.42	0.02	1.019															6	0
7	1.080	2.25	2.45	2.45	3.05	0.01	0.988	7.0	7.4		194	4.3	2.8	2.0	139	760	38.73	25.22	18.01	1252	6845	7	0
8	1.075	2.42	2.62	2.83	3.24	0.03	0.792															8	0
9	1.020	3.41	2.81	3.88	3.86	0.01	1.033															9	0
10	1.050	2.62	2.91	3.80	3.80	0.01	1.425	7.4	7.5	1	210	4.1	0.1	2.7	143	600	35.90	0.88	23.64	1252	5254	10	0
11	1.080	2.44	2.83	3.80	3.42	0.03	0.903															11	0
12	1.065	2.82	2.64	3.70	3.18	0.02	0.557															12	0.3
13	1.000	2.41	2.82	3.78	3.40	0.03	1.018															13	0
14	1.030	2.62	2.92	3.61	3.61	0.02	1.226	7.9	7.7		244	2.8	0.1	2.0	145	570	24.05	0.86	17.18	1246	4896	14	0.4
15	0.910	2.71	2.91	3.72	3.79	0.03	0.638															15	0.4
16	0.940	2.82	1.94	3.81	3.92	0.04	1.164			1												16	0
17	1.070	2.63	2.23	3.49	3.59	0.02	1.032	8.1	7.6		220	1.7	0.8	2.5	143	1120	15.17	7.14	22.31	1276	9995	17	2
18	0.880	2.72	2.52	3.37	3.77	0.02	1.088															18	0
19	0.900	2.72	2.52	3.67	3.77	0.02	1.011															19	0
20	1.010	2.73	2.61	3.67	3.70	0.03	1.096															20	0
21	1.140	2.88	2.79	3.78	3.78	0.03	1.261	6.5	7.7		252	3.5	1.3	5.0	139	920	33.28	12.36	47.54	1322	8747	21	0
22	1.190	2.90	2.70	3.59	3.69	0.03	1.114															22	0
23	1.220	2.90	2.70	3.79	3.69	0.03	1.073	6.8	7.5	1	278	2.1	0.1	2.6	99	670	21.37	1.02	26.45	1005	6817	23	0
24	1.110	3.41	2.91	3.78	3.69	0.03	1.015															24	0
25	1.170	2.89	3.07	2.79	4.09	0.01	1.121															25	0
26	1.140	2.71	2.91	3.21	4.33	0.02	1.452															26	0
27	1.150	3.38	3.77	2.51	3.77	0.01	1.231															27	0
28	1.190	3.38	3.19	2.69	3.67	0.01	1.123	7.8	7.6		248	3.2	0.3	4.4	140	590	31.76	2.98	43.67	1389	5856	28	2
29	1.140	3.18	3.09	2.89	3.79	0.01	1.035															29	0
30	1.110	3.30	2.90	3.28	3.77	0.01	1.356	6.8	7.6	6	232	3.9	0.1	2.3	156	980	36.10	0.93	21.29	1444	9072	30	0
31	1.130	3.30	2.90	3.50	3.57	0.02	1.224															31	0

	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS						
Average Lbs/ Day:												**37.12**	**5.80**	**29.14**	**1270**	**7304**						
AVG	**1.116**						**1.116**			**2**		**4.13**	**0.63**	**3.17**	**139**	**799**						
MIN	**0.880**	**1.94**					**0.557**	**6.5**	**6.8**	**1**		**1.7**	**0.1**	**2.0**	**99**	**570**	**15.17**	**0.84**	**17.18**	**1005**	**4896**	**0.00**
MAX	**1.670**	**4.33**				**0.05**	**1.581**		**7.7**	**15**		**11.6**	**2.8**	**5.0**	**156**	**1120**	**97.71**	**25.22**	**47.54**	**1444**	**9995**	**3.50**

2-Hour Peak Flow, <5,000 GPM:
2,965

Monthly Average Flows								
	01/24	1.011	04/24	0.910	07/23	1.059	10/23	1.165
	02/24	0.897	05/24	1.116	08/23	1.136	11/23	1.026
	03/24	0.885	06/23	0.993	09/23	1.136	12/23	0.894

Total **13.65**

Reading 5/1/2024 394280
Reading 6/1/2024 428878
# of days 31
Daily Average Flow= **1.116065** **MGD**

Annual Average Flow: **1.019**
Reading 6/1/2023 55649
Reading 6/1/2024 428878
Annual Average Flow: **1.023** **MGD**
Capacity: **62%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **June 2024**

TX0124907

		Grab Samples						Grab Samples				Composite Samples									
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS	
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day
1	1.180	3.19	3.19	3.50	3.80	0.02	0.353															1
2	1.140	3.43	3.43	3.30	3.78	0.02	0.809															2
3	1.160	3.32	3.32	3.38	3.50	0.03	1.083															3
4	1.150	3.39	3.39	3.69	3.69	0.03	1.184	7.0	7.2		228	5.3	0.3	2.8	129	680	50.83	2.88	26.85	1237	6522	4
5	1.140	3.37	3.37	3.77	3.67	0.03	1.055															5
6	1.150	3.20	3.20	3.60	3.80	0.02	1.277	6.7	7.5		232	3.6	0.2	2.4	140	730	34.53	1.92	23.02	1343	7001	6
7	1.070	3.36	3.36	3.71	3.71	0.02	0.815															7
8	1.060	3.28	3.28	3.58	3.48	0.02	0.934	7.1	7.0	77	248	5.3	0.3	5.0	131	690	46.85	2.65	44.20	1158	6100	8
9	1.060	3.20	3.20	3.50	3.70	0.03	1.359															9
10	1.100	3.37	3.37	3.37	3.37	0.02	0.854															10
11	1.100	3.16	3.16	3.66	3.76	0.02	1.345	5.7	7.3		264	27.0	0.9	3.0	138	730	247.70	8.26	27.52	1266	6697	11
12	1.100	2.92	2.92	3.80	3.60	0.02	0.720															12
13	1.030	2.71	2.71	3.73	3.51	0.01	1.462	7.0	7.5	1												13
14	1.060	2.92	2.92	3.84	3.70	0.01	0.784															14
15	1.090	1.11	1.11	2.29	2.81	0.01	1.393	6.2	7.3		258	3.2	0.3	9.1	157	900	29.09	2.73	82.72	1427	8182	15
16	1.030	1.39	1.39	1.77	2.49	0.01	1.076															16
17	1.080	1.91	1.91	2.38	2.91	0.02	0.875															17
18	1.150	2.11	2.11	2.71	3.11	0.02	1.121	10.6	7.9		260	2.9	0.4	2.0	147	880	27.81	3.84	19.18	1410	8440	18
19	1.050	2.40	2.40	2.12	3.77	0.04	1.127															19
20	1.110	2.50	2.50	2.60	3.70	0.04	0.904	7.0	7.5	1	256	1.9	0.1	3.4	139	860	17.59	0.93	31.48	1287	7961	20
21	1.170	2.41	2.41	3.11	3.59	0.02	1.074															21
22	1.150	3.34	3.34	3.19	3.79	0.02	1.064															22
23	1.180	3.63	3.63	3.52	3.77	0.02	1.336															23
24	1.080	3.18	3.18	3.38	3.68	0.04	0.919															24
25	1.090	3.40	3.40	3.50	3.40	0.04	0.997	7.8	7.3		258	2.1	0.2	2.0	136	790	19.09	1.82	18.18	1236	7182	25
26	0.990	3.47	3.47	3.27	3.67	0.03	1.228															26
27	1.100	3.29	3.29	3.69	2.39	0.03	0.986	6.4	7.6	1	242	1.0	0.1	2.0	152	600	9.17	0.92	18.35	1394	5504	27
28	1.040	3.18	3.18	3.18	2.98	0.04	1.060															28
29	1.090	3.40	3.40	3.37	3.80	0.04	0.995															29
30	1.060	3.69	3.69	3.70	3.80	0.04	1.184															30
31																						31

	24 Hour	Chlorine mg/l	TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS					
Average Lbs/ Day:									**53.63**	**2.88**	**32.39**	**1307**	**7065**					
AVG	**1.046**			**1.046**			**3**		**5.81**	**0.31**	**3.52**	**141**	**762**					
MIN	**0.990**	**1.11**		**0.353**	**5.7**	**7.0**	**1**		**1.0**	**0.1**	**2.0**	**129**	**600**	**9.17**	**0.92**	**18.18**	**1158**	**5504**
MAX	**1.180**	**3.84**	**0.04**	**1.462**		**7.9**	**77**		**27.0**	**0.9**	**9.1**	**157**	**900**	**247.70**	**8.26**	**82.72**	**1427**	**8440**

2-Hour Peak Flow, <5,000 GPM:
1,215

Reading 6/1/2024 428878
Reading 7/1/2024 460251
# of days 30
Daily Average Flow= **1.046**

Monthly Average Flows								
	01/24	1.011	04/24	0.910	07/23	1.059	10/23	1.165
	02/24	0.897	05/24	1.116	08/23	1.136	11/23	1.026
	03/24	0.885	06/24	1.046	09/23	1.136	12/23	0.894
			Annual Average Flow:					**1.023**

Reading 7/1/2023 85446
Reading 7/1/2024 460251
Total:
Annual Average Flow: **1.027** **MGD**
Capacity: **58%**

Total

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **July 2024**

TX0124907	Grab Samples					Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS	Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day
1	1.040	3.77	3.47	1.44	3.90	0.05	1.082															1	0
2	1.070	3.60	3.70	3.81	3.12	0.01	1.066	7.4	6.8	13	220	3.0	0.3	2.0	149	820	26.77	2.68	17.85	1330	7318	2	0
3	1.070	3.48	3.38	3.68	3.28	0.02	0.854															3	0
4	1.050	1.99	2.93	3.21	3.61	0.02	1.160	5.7	7.4	17	224	2.6	0.1	5.2	143	800	22.77	0.88	45.54	1252	7006	4	0
5	1.030	2.69	3.03	3.31	3.51	0.02	0.998															5	0
6	1.100	2.18	3.39	4.29	4.47	0.05	1.048															6	0
7	1.090	2.09	3.31	4.11	4.29	0.06	1.092															7	0
8	1.120	2.12	2.92	3.72	3.79	0.04	1.562															8	2
9	1.490	2.20	2.20	3.77	3.57	0.05	0.899															9	0
10	0.830	2.00	2.00	3.66	3.76	0.05	1.137															10	0
11	1.030	1.95	1.95	3.45	3.65	0.04	1.173															11	0
12	1.050	1.88	1.88	3.18	3.78	0.04	1.016	5.5	7.1	10	216	8.2	0.1	6.0	170	1180	71.81	0.88	52.54	1489	10333	12	2
13	1.020	1.90	1.88	3.39	3.80	0.04	0.900															13	0
14	1.080	1.90	1.90	3.77	3.66	0.02	1.283															14	0
15	1.090	1.92	2.02	3.20	3.75	0.05	1.108															15	0
16	1.110	1.94	1.94	3.40	3.50	0.02	1.104	6.0	7.4		246	5.4	0.1	2.0	164	1020	49.99	0.93	18.51	1518	9443	16	0
17	1.140	1.94	1.94	3.27	3.67	0.02	1.216															17	0
18	1.110	1.94	1.94	3.58	3.78	0.04	0.906	6.3	7.1	1	262	8.7	1.7	7.0	143	750	80.54	15.74	64.80	1324	6943	18	1
19	1.140	2.92	2.92	3.65	3.65	0.04	1.147															19	0
20	1.140	3.02	3.02	3.20	3.40	0.04	1.099															20	0
21	1.060	3.22	2.92	3.38	3.78	0.04	1.350															21	0
22	1.150	3.40	3.30	3.56	3.76	0.05	0.951															22	0
23	1.180	3.12	3.21	3.47	3.65	0.03	1.642	6.9	6.9		246	4.7	1.3	6.7	143	850	46.25	12.79	65.94	1407	8365	23	2
24	1.420	3.20	3.40	3.65	3.75	0.03	1.227															24	0
25	1.230	3.41	3.51	3.80	3.60	0.02	1.150	6.9	7.1	1	180	2.8	0.2	3.5	119	840	28.72	2.05	35.90	1221	8617	25	1
26	1.150	2.92	3.02	3.38	3.68	0.02	1.042															26	1
27	1.160	3.40	3.79	5.11	4.49	0.06	1.150															27	1.25
28	1.140	3.78	4.00	4.28	4.77	0.07	1.238															28	0.25
29	1.160	3.60	3.50	3.80	3.80	0.05	0.979															29	0
30	1.180	3.52	3.69	3.71	3.58	0.04	1.146			1	230	3.7	0.1	3.1	158	630	36.41	0.98	30.51	1555	6200	30	0
31	1.130	3.80	3.60	3.77	3.67	0.03	1.107															31	0

	24 Hour	Chlorine mg/l	TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS						
Average Lbs/ Day:									**45.41**	**4.62**	**41.45**	**1387**	**8028**						
AVG	**1.124**			**1.124**			**4**		**4.89**	**0.49**	**4.44**	**149**	**861**						
MIN	**0.830**	**1.44**		**0.854**	**5.5**	**6.8**	**1**		**2.6**	**0.1**	**2.0**	**119**	**630**	**22.77**	**0.88**	**17.85**	**1221**	**6200**	**0.00**
MAX	**1.490**	**5.11**	**0.07**	**1.642**		**7.4**	**17**		**8.7**	**1.7**	**7.0**	**170**	**1180**	**80.54**	**15.74**	**65.94**	**1555**	**10333**	**2.00**

2-Hour Peak Flow, <5,000 GPM:
2,722

Monthly Average Flows								
	01/24	1.011	04/24	0.910	07/24	1.124	10/23	1.165
	02/24	0.897	05/24	1.116	08/23	1.136	11/23	1.026
	03/24	0.885	06/24	1.046	09/23	1.136	12/23	0.894
			Annual Average Flow:				**1.029**	

Total **10.5**

Reading 7/1/2024 460251
Reading 8/1/2024 495083
# of days 31
Daily Average Flow= **1.123613** **MGD**

Reading 8/1/2023 118281
Reading 8/1/2024 495083
Total:
Annual Average Flow: **1.032** **MGD**
Capacity: **62%**

8 total TSS, NH3, CBOD, Chloride, TDS
7 total DO, pH
Only one sample was pulled 7/7-7/13/24 because of Hurricane Beryl.

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **August 2024**

TX0124907

		Grab Samples						Grab Samples				Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	1.120	1.42	3.87	3.85	3.86	0.04	1.342	6.7	7.3	1	232	2.2	0.1	2.5	155	900	20.55	0.93	23.35	1448	8407	1	0
2	1.160	2.21	3.67	3.77	3.77	0.04	1.206															2	0
3	1.140	2.10	3.58	3.66	3.78	0.04	0.813	8.9	7.5													3	0
4	1.150	2.10	3.58	3.66	3.78	0.04	1.478															4	0
5	1.230	2.44	3.36	3.78	3.56	0.04	0.880															5	0
6	1.150	2.93	3.19	3.59	3.89	0.03	1.296	6.8	7.2		242	4.9	0.1	2.0	142	740	47.00	0.96	19.18	1362	7097	6	0
7	1.070	3.01	3.37	3.77	3.77	0.03	1.156															7	0
8	1.130	3.01	3.27	3.67	3.77	0.03	1.197	6.2	7.1	1	252	1.0	0.1	2.0	144	680	9.42	0.94	18.85	1357	6408	8	0
9	1.140	3.01	3.27	3.78	3.77	0.03	1.001															9	0
10	1.160	7.09	3.51	2.99	2.99	0.01	0.988															10	0
11	1.150	6.41	4.00	3.51	4.30	0.05	1.511															11	0
12	1.210	3.91	3.80	3.40	3.90	0.05	1.192															12	0
13	1.250	3.91	3.80	3.40	3.90	0.05	1.133	6.8	7.8		244	2.2	0.3	3.2	151	590	22.94	3.13	33.36	1574	6151	13	0
14	1.200	3.81	3.80	3.50	3.90	0.05	1.235															14	0
15	1.130	3.70	3.58	3.78	3.98	0.03	1.160	7.5	7.6	1	260	2.0	0.3	2.2	159	820	18.85	2.83	20.73	1498	7728	15	0
16	1.160	3.70	3.79	3.78	3.88	0.03	1.415															16	0
17	1.160	4.61	3.37	1.41	4.20	0.01	0.874															17	0
18	1.150	4.01	3.11	1.78	3.61	0.04	1.307															18	0
19	1.230	3.91	3.21	2.38	3.81	0.04	1.209															19	0
20	1.160	3.70	3.39	2.60	3.79	0.04	0.957	6.7	7.4		274	2.7	0.4	2.0	161	620	26.12	3.87	19.35	1558	5998	20	0
21	1.160	3.70	3.39	2.80	3.79	0.04	1.043															21	0
22	1.210	3.85	3.88	3.84	3.78	0.05	1.494	6.7	7.3	8	252	2.7	0.5	2.0	163	1060	27.25	5.05	20.18	1645	10697	22	0
23	1.210	3.75	3.48	3.75	3.85	0.06	0.762															23	0
24	1.210	3.68	3.41	2.46	3.69	0.05	1.193															24	0
25	1.730	3.79	3.60	3.04	3.78	0.04	1.635															25	0
26	1.260	3.11	3.71	3.23	3.79	0.01	0.971															26	0
27	1.240	3.77	2.13	3.75	3.84	0.04	1.384	7.3	7.3		246	3.9	0.2	2.0	162	810	40.33	2.07	20.68	1675	8377	27	0
28	1.210	3.59	2.42	3.51	3.77	0.03	1.329															28	0
29	1.250	3.38	2.60	3.58	3.69	0.06	1.331	7.7	7.9		250	2.1	0.1	6.4	158	840	21.89	1.04	66.72	1647	8757	29	2
30	1.420	3.30	2.92	3.80	3.79	0.06	1.067															30	1
31	1.280	3.11	3.41	3.78	3.92	0.04	0.970			26												31	0

	24 Hour hlorine mg/l					TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS						
Average Lbs/ Day:												**26.04**	**2.31**	**26.93**	**1529**	**7736**						
AVG	**1.178**						**1.178**			**3**		**2.63**	**0.23**	**2.70**	**155**	**784**						
MIN	**1.070**	**1.41**					**0.762**	**6.2**	**7.1**	**1**		**1.0**	**0.1**	**2.0**	**142**	**590**	**9.42**	**0.93**	**18.85**	**1357**	**5998**	**0.00**
MAX	**1.730**	**7.09**				**0.06**	**1.635**		**7.9**	**26**		**4.9**	**0.5**	**6.4**	**163**	**1060**	**47.00**	**5.05**	**66.72**	**1675**	**10697**	**2.00**

2-Hour Peak Flow, <5,000 GPM:
1,750

Monthly Average Flows	01/24	1.011	04/24	0.910	07/24	1.124	10/23	1.165	**Total**	**3**
	02/24	0.897	05/24	1.116	08/24	1.178	11/23	1.026		
	03/24	0.885	06/24	1.046	09/23	1.136	12/23	0.894		
			Annual Average Flow:				**1.032**			

Reading 8/1/2024 495083
Reading 9/1/2024 531612
# of days 31
Daily Average Flow= **1.17835**

Reading 9/1/2023 153494
Reading 9/1/2024 531612
Total:
Annual Average Flow: **1.036** **MGD**
Capacity: **65%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **September 2024**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	1.210	3.58	2.93	3.59	3.77	0.05	0.912															1	0
2	1.240	3.40	2.84	3.71	3.80	0.04	0.863															2	0
3	1.070	3.30	2.94	3.40	3.80	0.04	0.958	6.4	7.4		232	1.8	0.4	3.2	154	660	16.06	3.57	28.56	1374	5890	3	0
4	0.990	3.50	3.22	3.12	3.82	0.04	0.767															4	0
5	0.960	3.41	3.31	2.14	2.14	0.03	1.378	6.2	7.0	160	248	3.3	0.7	2.0	150	680	26.42	5.60	16.01	1201	5444	5	0
6	1.030	3.41	3.21	2.74	2.54	0.03	1.083															6	1
7	1.000	3.41	3.21	2.94	2.94	0.03	0.982															7	0
8	1.030	3.41	3.21	2.94	2.94	0.03	0.450															8	0
9	0.960	3.30	3.30	3.12	3.50	0.04	0.946															9	0
10	0.930	3.71	2.92	3.31	3.41	0.03	0.961	6.2	6.8		240	4.3	0.6	2.0	149	950	33.35	4.65	15.51	1156	7368	10	0
11	0.970	3.50	2.83	3.60	3.51	0.04	1.012															11	0
12	1.020	3.88	3.89	3.71	3.62	0.01	1.295	6.3	7.0	10	222	5.4	0.2	4.3	148	740	45.94	1.70	36.58	1259	6295	12	0.3
13	0.970	3.88	3.18	3.81	3.81	0.02	0.770															13	0
14	1.010	4.43	3.81	4.08	4.19	0.04	1.404															14	0
15	1.060	4.11	3.79	3.51	3.91	0.02	0.857															15	0
16	1.060	3.90	3.80	3.60	3.90	0.02	0.899															16	0
17	1.030	3.90	3.80	3.70	3.80	0.02	0.824	6.2	7.4		236	1.9	0.1	2.0	145	650	16.32	0.86	17.18	1246	5584	17	0
18	0.900	3.88	3.71	3.62	3.69	0.01	0.920															18	0
19	0.910	3.70	3.51	3.78	3.61	0.01	0.887	6.5	7.7	23	248	3.6	1.0	2.0	150	810	27.32	7.59	15.18	1138	6147	19	0
20	0.895	3.77	3.70	3.70	3.80	0.04	1.011															20	0
21	0.940	3.78	3.61	3.44	3.79	0.03	0.929															21	0
22	0.960	3.71	3.71	3.53	3.70	0.03	1.017															22	0
23	1.030	3.80	3.80	3.62	3.59	0.01	0.996															23	0
24	1.000	3.70	3.52	3.78	3.41	0.01	1.180	6.6	7.6		260	4.8	1.8	4.9	149	780	40.03	15.01	40.87	1243	6505	24	0
25	0.980	3.70	3.52	3.78	3.61	0.01	0.732															25	0
26	0.930	3.81	3.41	3.69	3.79	0.01	1.095	7.4	7.9	3	260	1.2	2.1	2.8	146	660	9.31	16.29	21.72	1132	5119	26	0
27	0.860	3.81	3.41	3.79	3.79	0.01	1.114															27	0
28	1.080	3.78	3.55	3.80	3.57	0.01	0.811															28	0
29	1.000	3.62	3.51	3.80	3.80	0.01	0.810															29	0
30	0.980	3.62	3.51	3.80	3.80	0.01	0.802															30	0
31																						31	
	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS							
Average Lbs/ Day:												**26.84**	**6.91**	**23.95**	**1219**	**6044**							
AVG	**0.956**						**0.956**			**18**		**3.29**	**0.86**	**2.90**	**149**	**741**							
MIN	**0.860**	**2.14**					**0.450**	**6.2**	**6.8**	**3**		**1.2**	**0.1**	**2.0**	**145**	**650**	**9.31**	**0.86**	**15.18**	**1132**	**5119**	**0.00**	
MAX	**1.240**	**4.43**				**0.05**	**1.404**		**7.9**	**160**		**5.4**	**2.1**	**4.9**	**154**	**950**	**45.94**	**16.29**	**40.87**	**1374**	**7368**	**1.00**	

2-Hour Peak Flow, <5,000 GPM:
1,069

Monthly Average Flows								
	01/24	1.011	04/24	0.910	07/24	1.124	10/23	1.165
	02/24	0.897	05/24	1.116	08/24	1.178	11/23	1.026
	03/24	0.885	06/24	1.046	09/24	0.956	12/23	0.894
			Annual Average Flow:				**1.017**	

Total **1.3**

Reading 9/1/2024 531612
Reading 10/1/2024 560277
# of days Total Flow 30
Daily Average Flow= **0.956**

Reading 10/1/2023 187588
Reading 10/1/2024 560277
Annual Average Flow: **1.021** **MGD**
Capacity: **53%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **October 2024**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	0.950	3.62	3.51	3.60	3.80	0.01	1.077	6.6	7.3		260	6.0	0.5	3.6	152	870	47.54	3.96	28.52	1204	6893	1	0
2	0.900	3.81	3.61	3.69	3.60	0.01	0.985															2	0
3	0.900	3.60	3.50	3.28	3.70	0.01	1.009	7.3	7.5	3	258	6.2	0.2	2.9	154	790	46.54	1.50	21.77	1156	5930	3	1
4	0.990	3.70	3.38	3.80	3.70	0.01	0.736															4	0
5	1.000	5.07	2.88	2.61	4.07	0.01	0.957															5	0
6	1.000	4.67	3.41	2.87	3.90	0.04	1.076															6	0
7	1.000	4.08	3.20	3.08	3.75	0.03	0.952															7	0
8	0.850	3.76	3.38	3.70	3.88	0.02	0.866	6.5	7.6		244	1.3	0.1	2.0	147	710	9.22	0.71	14.18	1042	5033	8	0
9	0.810	3.90	3.62	3.50	3.99	0.02	0.821															9	0.25
10	0.840	4.08	3.70	3.60	4.10	0.01	0.868	6.6	7.1	5	252	3.0	0.1	2.0	149	830	21.02	0.70	14.01	1044	5815	10	1
11	0.840	3.85	3.38	3.48	3.98	0.03	0.642															11	0
12	0.850	3.75	3.38	3.48	3.78	0.03	0.941															12	0
13	0.880	3.75	3.38	3.58	3.78	0.03	1.139															13	0
14	1.000	3.68	3.30	3.28	3.69	0.04	0.816															14	0
15	0.870	3.60	3.18	3.70	3.58	0.01	0.858	6.7	7.3		210	1.2	0.1	2.0	156	680	8.71	0.73	14.51	1132	4934	15	0
16	0.880	3.68	3.30	3.71	3.80	0.02	1.028															16	0
17	0.950	3.47	3.50	3.50	3.48	0.03	0.841	7.5	7.3	22	220	4.1	0.1	2.0	157	810	32.48	0.79	15.85	1244	6418	17	0.2
18	0.910	3.40	3.60	3.61	3.50	0.02	0.739															18	0
19	0.900	3.49	3.51	3.52	3.70	0.02	0.890															19	0
20	0.960	3.42	3.35	3.61	3.51	0.02	1.142															20	0
21	0.900	3.30	3.42	3.71	3.52	0.02	0.857															21	0
22	0.970	3.48	3.31	3.50	3.66	0.02	0.956	6.9	7.2		208	6.1	0.1	5.0	127	660	49.35	0.81	40.45	1027	5339	22	0
23	1.100	3.40	3.50	3.50	3.58	0.02	0.905															23	0
24	1.200	3.38	3.32	3.58	3.47	0.03	0.854	7.0	7.2	21	208	2.1	0.1	3.8	152	620	21.02	1.00	38.03	1521	6205	24	0
25	0.930	3.30	3.41	3.70	3.48	0.01	1.278															25	0
26	0.960	3.28	3.30	3.52	3.66	0.01	0.810															26	0
27	0.990	3.50	3.42	3.41	3.70	0.02	0.997															27	0
28	0.990	3.17	3.52	3.30	3.50	0.02	0.978															28	0
29	0.940	3.30	3.62	3.50	3.40	0.02	0.763	6.8	7.5		214	2.9	0.3	2.9	152	690	22.73	2.35	22.73	1192	5409	29	0
30	0.990	3.38	3.51	3.57	3.75	0.02	1.148															30	0
31	0.940	3.50	3.40	3.50	3.50	0.02	0.896	6.5	7.5	26	228	2.9	0.1	2.9	158	754	22.73	0.78	22.73	1239	5911	31	0
	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS							
Average Lbs/ Day:												**28.13**	**1.33**	**23.28**	**1180**	**5789**							
AVG	**0.930**						**0.930**			**11**		**3.58**	**0.17**	**2.91**	**150**	**741**							
MIN	**0.810**		**2.61**				**0.642**	**6.5**	**7.1**	**3**		**1.2**	**0.1**	**2.0**	**127**	**620**	**8.71**	**0.70**	**14.01**	**1027**	**4934**		**0.00**
MAX	**1.200**		**5.07**			**0.04**	**1.278**		**7.6**	**26**		**6.2**	**0.5**	**5.0**	**158**	**870**	**49.35**	**3.96**	**40.45**	**1521**	**6893**		**1.00**

2-Hour Peak Flow, <5,000 GPM:
1,118

Monthly Average Flows								
	01/24	1.011	04/24	0.910	07/24	1.124	10/24	0.930
	02/24	0.897	05/24	1.116	08/24	1.178	11/23	1.026
	03/24	0.885	06/24	1.046	09/24	0.956	12/23	0.894
			Annual Average Flow:				**0.998**	

Total **2.45**

Reading 10/1/2024 560277
Reading 11/1/2024 589102
Reading
# of days 31
Daily Average Flow= **0.930**

Reading 11/1/2023 223709
Reading 11/1/2024 589102

No measurable rainfall event recorded.

Annual Average Flow: **1.001** **MGD**
Capacity: **52%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **November 2024**

TX0124907	Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	1.450	3.30	3.38	3.30	3.39	0.02	0.736															1	0
2	0.960	3.10	3.10	3.19	3.39	0.02	1.106															2	0
3	1.050	3.10	3.10	3.19	3.39	0.02	1.079															3	1
4	0.710	3.18	3.22	3.28	3.30	0.02	1.143															4	0
5	0.990	3.06	3.01	3.12	3.28	0.03	0.984	7.3	6.6		208	4.8	0.2	3.4	165	758	39.63	1.65	28.07	1362	6259	5	0
6	1.090	3.30	3.32	3.31	3.09	0.03	1.080															6	0
7	0.920	3.52	3.12	3.40	3.08	0.02	0.990	6.5	7.1	14	200	2.4	0.1	3.4	173	869	18.41	0.77	26.09	1327	6668	7	0
8	1.050	3.41	3.00	3.40	3.08	0.03	0.369															8	0
9	0.560	4.30	3.79	4.01	4.43	0.05	1.354															9	0.25
10	1.690	4.09	3.21	3.29	4.01	0.04	1.070															10	1
11	1.240	3.48	3.45	3.00	3.90	0.02	0.957															11	0
12	1.060	3.89	3.64	3.25	3.87	0.03	1.033	7.8	7.4		204	3.3	0.1	3.0	176	712	29.17	0.88	26.52	1556	6294	12	0
13	1.000	3.00	2.70	3.10	3.85	0.04	1.090															13	0
14	1.000	3.80	3.51	3.48	3.38	0.02	1.042															14	0
15	0.960	3.42	3.40	3.40	3.30	0.02	0.646	8.7	6.7	1	224	3.4	0.1	2.3	167	822	27.22	0.80	18.41	1337	6581	15	0
16	1.000	3.60	3.51	3.41	3.50	0.02	0.942															16	0
17	1.000	3.52	3.35	3.51	3.39	0.02	1.405															17	0.2
18	1.150	3.40	3.24	3.40	3.30	0.02	1.096															18	0
19	1.110	3.50	3.44	3.60	3.30	0.02	1.008	8.6	8.1		260	2.7	0.1	2.0	180	830	24.99	0.93	18.51	1666	7684	19	0
20	1.000	3.50	3.44	3.60	3.30	0.02	1.026															20	0
21	1.020	3.30	3.24	3.40	3.50	0.02	1.051	7.9	7.5	1990	246	3.8	0.1	3.2	159	876	32.33	0.85	27.22	1353	7452	21	0
22	1.010	3.30	3.14	3.31	3.50	0.02	1.099															22	0
23	1.115	3.38	3.21	3.38	3.32	0.04	0.987															23	0
24	1.020	3.21	3.09	3.57	3.64	0.02	0.707															24	0
25	0.980	3.21	3.09	3.57	3.64	0.02	0.930	8.0	7.5		240	2.1	0.1	3.2	153	993	17.16	0.82	26.15	1250	8116	25	0
26	0.920	3.11	3.30	3.50	3.41	0.02	1.151															26	0
27	0.920	3.04	3.22	3.40	3.30	0.02	0.823	6.8	7.1	1	242	8.4	0.1	7.0	161	770	64.45	0.77	53.71	1235	5908	27	0
28	1.020	3.04	3.22	3.40	3.30	0.02	0.807															28	0
29	0.980	3.04	3.22	3.40	3.30	0.02	1.239															29	0
30	0.940	3.24	3.22	3.80	3.50	0.02	0.971															30	0
31																						31	
	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS							
Average Lbs/ Day:												**31.67**	**0.93**	**28.09**	**1386**	**6870**							
AVG	**0.997**						**0.997**			**13**		**3.86**	**0.11**	**3.44**	**167**	**829**							
MIN	**0.560**	**2.70**					**0.369**	**6.5**	**6.6**	**1**		**2.1**	**0.1**	**2.0**	**153**	**712**	**17.16**	**0.77**	**18.41**	**1235**	**5908**	**0.00**	
MAX	**1.690**	**4.43**				**0.05**	**1.405**		**8.1**	**1990**		**8.4**	**0.2**	**7.0**	**180**	**993**	**64.45**	**1.65**	**53.71**	**1666**	**8116**	**1.00**	

2-Hour Peak Flow, <5,000 GPM:
1,167

Monthly Average Flows								
	01/24	1.011	04/24	0.910	07/24	1.124	10/24	0.930
	02/24	0.897	05/24	1.116	08/24	1.178	11/24	0.997
	03/24	0.885	06/24	1.046	09/24	0.956	12/23	0.894
			Annual Average Flow:				**0.995**	

Total **2.45**

Reading 11/1/2024 589102
Reading 12/1/2024 619023
# of days 30
Daily Average Flow= **0.99737**

Reading 12/1/2023 254496
Reading 12/1/2024 619023

Annual Average Flow: **0.999** **MGD**
Capacity: **55%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM II PHASE **December** **2024**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	1.030	3.44	3.42	3.80	3.50	0.02	1.153															1	0
2	1.240	3.32	3.32	3.68	3.44	0.02	1.053															2	0
3	1.140	1.05	1.05	1.05	4.09	0.02	1.069	9.1	8.1		242	3.7	0.1	2.0	173	760	35.18	0.95	19.02	1645	7226	3	0
4	1.000	2.38	2.89	3.70	3.92	0.02	0.923															4	0
5	1.070	3.04	2.82	3.42	3.82	0.02	1.074	7.6	8.0	5	260	1.0	0.2	4.9	154	827	8.92	1.78	43.73	1374	7380	5	0
6	1.160	3.11	2.66	3.00	3.62	0.02	0.923															6	0
7	1.000	4.11	3.13	3.59	2.81	0.00	0.821															7	0.25
8	0.970	3.91	3.54	3.80	3.20	0.00	1.350															8	0.15
9	1.060	3.72	3.31	3.70	3.32	0.02	1.097															9	0
10	1.100	3.24	3.57	3.48	3.66	0.02	0.867	8.1	7.9		294	4.6	0.3	2.5	217	978	42.20	2.75	22.94	1991	8972	10	0
11	1.020	3.50	3.01	3.60	3.58	0.02	0.821															11	0
12	1.070	3.27	3.21	3.44	3.67	0.03	1.104	7.4	7.2	4												12	0
13	1.090	3.46	3.43	3.06	3.32	0.02	0.904															13	0
14	1.050	3.59	3.20	3.61	3.04	0.02	1.072				254	4.3	0.1	2.4	154	1010	37.66	0.88	21.02	1349	8845	14	0.02
15	1.080	3.38	3.41	3.40	3.29	0.02	1.280															15	0.5
16	1.130	3.22	3.32	3.62	3.21	0.02	1.242															16	0
17	1.090	3.32	3.42	3.51	3.30	0.02	1.169	7.5	7.7		268	4.7	0.4	4.4	160	784	42.73	3.64	40.00	1454	7127	17	0
18	1.160	3.96	3.31	3.96	3.20	0.04	0.988															18	0
19	1.150	3.98	3.98	3.75	3.75	0.04	0.968	7.0	7.0	2	262	2.3	0.5	5.5	150	1380	22.06	4.80	52.75	1439	13236	19	0.1
20	0.093	2.42	2.48	3.00	2.18	0.04	1.255															20	0
21	1.140	3.10	2.90	3.85	2.71	0.04	0.950															21	0
22	1.160	3.28	3.40	3.90	3.39	0.04	0.698															22	0
23	1.040	3.24	3.79	3.82	3.22	0.04	0.795	8.7	7.2		236	2.6	0.1	2.0	155	781	22.55	0.87	17.35	1344	6774	23	0
24	1.090	2.91	3.59	4.10	4.60	0.02	1.510															24	0
25	1.670	3.42	3.83	3.70	4.00	0.02	0.528															25	1
26	1.682	3.48	3.32	3.20	3.76	0.04	1.076	8.0	7.5		234	2.4	0.4	2.0	146	833	33.67	5.61	28.06	2048	11685	26	2
27	0.930	3.02	2.40	3.02	3.20	0.04	0.720			8												27	1
28	1.000	3.02	2.40	3.02	3.20	0.04	0.759															28	1
29	0.870	3.12	2.40	3.35	3.30	0.04	1.007															29	1
30	0.780	2.96	2.50	3.08	3.25	0.03	0.832															30	0
31	0.780	3.08	2.28	3.24	3.38	0.04	0.564	8.4	7.9		236	3.1	1.8	2.6	155	838	20.17	11.71	16.91	1008	5451	31	0

	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS						
Average Lbs/ Day:												**29.46**	**3.66**	**29.08**	**1517**	**8522**						
AVG	**0.986**						**0.986**			**4**		**3.19**	**0.43**	**3.14**	**163**	**910**						
MIN	**0.093**	**1.05**					**0.528**	**7.0**	**7.0**	**2**		**1.0**	**0.1**	**2.0**	**146**	**760**	**8.92**	**0.87**	**16.91**	**1008**	**5451**	**0.00**
MAX	**1.682**	**4.60**				**0.04**	**1.510**		**8.1**	**8**		**4.7**	**1.8**	**5.5**	**217**	**1380**	**42.73**	**11.71**	**52.75**	**2048**	**13236**	**2.00**

2-Hour Peak Flow, <5,000 GPM:
1,166

Monthly Average Flows								
	01/24	1.011	04/24	0.910	07/24	1.124	10/24	0.930
	02/24	0.897	05/24	1.116	08/24	1.178	11/24	0.997
	03/24	0.885	06/24	1.046	09/24	0.956	12/24	0.986
			Annual Average Flow:				**1.003**	

Total **7.02**

Reading	12/1/2024	619023
Reading	1/1/2025	649595
# of days		31
Daily Average Flow=		**0.986194**

Reading	1/1/2024	282208
Reading	1/1/2025	649595
Total		
Annual Average Flow:		**1.007** **MGD**
Capacity:		**55%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY INTERIM I PHASE **January 2025**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	0.820	3.81	2.90	2.81	3.92	0.00	0.881															1	0
2	0.880	3.39	2.60	2.47	3.27	0.02	0.901	7.9	7.2	3	226	5.8	0.3	4.2	99	792	42.57	2.20	30.82	727	5813	2	0
3	0.820	3.02	2.72	2.68	3.48	0.03	0.569															3	0
4	0.880	3.39	2.85	3.39	3.91	0.02	0.885															4	0
5	0.850	3.81	3.40	3.81	4.30	0.01	1.033															5	0
6	0.850	3.27	2.52	2.75	3.65	0.02	0.782															6	1.5
7	0.680	3.38	2.80	1.58	3.80	0.02	0.853	8.1	7.9		228	4.6	0.3	2.0	142	782	26.09	1.70	11.34	805	4435	7	0
8	0.650	3.55	2.34	1.81	3.22	0.02	0.861															8	0
9	0.660	3.67	2.78	2.43	3.09	0.02	1.248	8.8	7.4	6	228	8.8	0.2	3.5	125	720	48.44	1.10	19.27	688	3963	9	0
10	0.990	3.12	2.56	3.21	2.85	0.02	0.587															10	2
11	1.000	3.74	2.80	2.97	3.20	0.02	0.931															11	0
12	0.830	4.27	3.99	3.81	3.54	0.04	1.082															12	0
13	0.720	3.53	3.40	3.10	3.28	0.02	0.851															13	0
14	0.760	3.45	3.22	3.07	3.28	0.02	0.773	9.5	7.3		228	6.8	0.2	4.8	133	750	43.10	1.27	30.42	843	4754	14	0
15	0.730	1.38	3.80	1.13	3.76	0.02	0.820															15	0
16	0.660	3.85	3.75	2.82	2.92	0.02	0.712	7.1	7.2	24	220	4.8	0.1	2.9	150	788	26.42	0.55	15.96	826	4337	16	0
17	0.650	3.32	3.47	2.87	2.78	0.02	1.047															17	0
18	0.780	3.48	3.39	3.35	3.35	0.04	0.786															18	0
19	0.760	3.70	3.62	3.19	3.76	0.02	0.650															19	0
20	0.740	3.25	3.38	2.98	3.28	0.02	0.955															20	0
21	0.950	3.81	3.63	3.69	3.81	0.01	0.974	10.2	7.3		210	10.8	0.1	2.4	150	798	85.57	0.79	19.02	1188	6323	21	0
22	0.790	3.38	3.50	3.45	3.37	0.02	1.051															22	0
23	0.750	3.07	3.09	3.28	2.99	0.02	0.688	8.6	7.1	727	220	1.0	0.1	2.8	132	758	6.26	0.63	17.51	826	4741	23	0
24	0.670	3.24	3.12	3.29	3.15	0.02	0.476															24	0
25	0.700	3.15	3.10	3.20	3.15	0.02	1.245															25	0
26	0.780	3.15	3.10	3.10	3.15	0.02	0.852															26	1
27	0.730	2.87	2.95	2.85	2.96	0.02	0.813															27	1
28	0.670	3.10	3.08	3.08	3.10	0.02	0.824	9.8	7.1		208	15.1	0.2	2.2	143	752	84.38	0.93	12.29	799	4202	28	0
29	0.680	2.85	2.99	2.96	2.82	0.02	0.658															29	0.25
30	0.540	2.99	2.82	3.06	2.88	0.02	0.943	8.5	7.5	50	210	5.7	0.1	2.3	140	752	25.67	0.45	10.36	631	3387	30	0
31	0.630	2.88	2.96	2.98	3.05	0.02	0.611															31	0

	24 hr flow	Chlorine				TCR		DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS							
Average Lbs/ Day:												**43.17**	**1.07**	**18.56**	**815**	**4662**							
AVG	**0.850**						**0.850**			**27**		**7.04**	**0.17**	**3.01**	**135**	**766**							
MIN	**0.540**	**1.13**					**0.476**	**7.1**	**7.1**	**3**		**1.0**	**0.1**	**2.0**	**99**	**720**	**6.26**	**0.45**	**10.36**	**631**	**3387**		**0.00**
MAX	**1.000**	**4.30**				**0.04**	**1.248**		**7.9**	**727**		**15.1**	**0.3**	**4.8**	**150**	**798**	**85.57**	**2.20**	**30.82**	**1188**	**6323**		**2.00**

2-Hour Peak Flow, <5,000 GPM:
1,507

Monthly Average Flows									
	01/25	0.850	04/24	0.910	07/24	1.124	10/24	0.930	
	02/24	0.897	05/24	1.116	08/24	1.178	11/24	0.997	
	03/24	0.885	06/24	1.046	09/24	0.956	12/24	0.986	
			Annual Average Flow:				**0.990**		

Total **5.75**

high TDS
E. Coli exceedence

Reading 1/1/2025 649595
Reading 2/1/2025 675937
# of days 31
Daily Average Flow= **0.850** **MGD**

Reading 2/1/2024 313564
Reading 2/1/2025 675937
Total
Annual Average Flow: **0.993** **MGD**
Capacity: **47%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **February 2025**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	0.740	3.51	3.77	3.54	3.49	0.03	0.826															1	0
2	0.780	3.74	3.34	2.78	3.77	0.01	1.017															2	0
3	0.690	3.32	3.08	2.61	3.52	0.01	0.774															3	0
4	0.650	1.70	1.86	2.67	2.85	0.02	0.872	7.7	7.4		226	24.7	0.1	3.0	140	744	133.90	0.54	16.26	759	4033	4	0
5	0.680	1.87	2.00	2.49	2.98	0.02	0.848															5	0
6	0.700	1.90	2.15	2.77	2.90	0.02	0.765	6.7	7.3	16	246	2.7	2.6	2.6	150	732	15.76	15.18	15.18	876	4273	6	0
7	0.660	2.07	2.18	2.65	3.05	0.02	0.639															7	0
8	0.820	2.40	2.39	3.09	3.17	0.01	0.803															8	0
9	0.810	2.91	3.65	3.49	3.39	0.02	1.078															9	0
10	0.700	3.08	3.42	3.37	3.12	0.02	0.751															10	0
11	0.710	2.65	3.16	3.05	3.20	0.02	0.900	8.4	7.4		256	12.0	4.5	3.7	150	714	71.06	26.65	21.91	888	4228	11	0.5
12	0.720	2.79	2.87	2.82	2.88	0.02	0.723															12	0.2
13	0.640	2.99	2.95	3.04	3.15	0.02	0.753	8.3	7.4	6	234	8.2	4.0	2.0	150	840	43.77	21.35	10.68	801	4484	13	0
14	0.670	3.06	2.70	3.01	2.89	0.02	0.547															14	0
15	0.700	2.80	2.70	3.01	2.89	0.02	0.949															15	0
16	0.780	2.80	2.70	3.21	2.79	0.02	0.966															16	0
17	0.700	3.05	2.84	3.05	3.01	0.02	0.684															17	0
18	0.600	2.89	3.17	2.86	3.18	0.02	0.962	8.6	7.4		228	3.5	1.1	12.6	150	764	17.51	5.50	63.05	751	3823	18	0
19	0.710	2.63	2.90	2.74	3.02	0.02	0.635															19	2
20	0.660	2.81	2.75	2.77	2.83	0.02	1.157	8.1	7.3	7	220	2.7	0.1	2.8	154	847	14.86	0.55	15.41	848	4662	20	0
21	0.770	2.97	2.52	2.69	2.98	0.02	0.528															21	0
22	0.830	3.17	2.89	3.30	3.15	0.02	0.818															22	0
23	0.820	2.89	2.40	3.17	2.82	0.02	1.093															23	0.6
24	0.670	3.16	2.65	3.01	3.05	0.02	0.717															24	0
25	0.570	2.37	2.64	2.68	2.88	0.02	0.907	8.8	7.6		236	16.7	0.3	5.4	146	712	79.39	1.43	25.67	694	3385	25	0
26	0.630	2.74	2.65	3.14	2.85	0.02	0.706															26	0
27	0.600	3.01	2.81	2.68	2.87	0.01	0.911	8.2	7.2		254	1.9	0.1	2.0	141	738	9.51	0.50	10.01	706	3693	27	0
28	0.640	2.88	2.75	2.42	2.81	0.01	0.630			1												28	0
29																						29	
30																						30	
31																						31	

	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS						
Average Lbs/ Day:												**48.22**	**8.96**	**22.27**	**790**	**4073**						
AVG	**0.820**						**0.820**			**5**		**9.05**	**1.60**	**4.26**	**148**	**761**						
MIN	**0.570**	**1.70**					**0.528**	**6.7**	**7.2**	**1**		**1.9**	**0.1**	**2.0**	**140**	**712**	**9.51**	**0.50**	**10.01**	**694**	**3385**	**0.00**
MAX	**0.830**	**3.77**				**0.03**	**1.157**		**7.6**	**16**		**24.7**	**4.5**	**12.6**	**154**	**847**	**133.90**	**26.65**	**63.05**	**888**	**4662**	**2.00**

2-Hour Peak Flow, <5,000 GPM:
1,069

Monthly	01/25	0.850	04/24	0.910	07/24	1.124	10/24	0.930
Average	02/25	0.820	05/24	1.116	08/24	1.178	11/24	0.997
Flows	03/24	0.885	06/24	1.046	09/24	0.956	12/24	0.986
			Annual Average Flow:				**0.983**	

Total **3.3**

Reading	2/1/2025	675937	
Reading	3/1/2025	698896	
			29
# of days			28
Daily Average Flow=		**0.819964**	

Reading	3/1/2024	339565	
Reading	3/1/2025	698896	
	Total		
Annual Average Flow:		**0.984**	**MGD**
Capacity:		**46%**	

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY **March 2025**

TX0124907

		Grab Samples						Grab Samples				Composite Samples											
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1	0.680	3.00	2.58	2.75	2.71	0.01	0.943															1	0
2	0.708	3.02	2.67	3.08	2.87	0.01	0.844															2	0
3	0.650	2.54	2.61	3.01	3.04	0.01	0.690															3	0
4	0.710	2.67	2.55	2.76	3.01	0.01	1.009	7.9	7.5		270	2.1	1.4	5.7	153	730	12.43	8.29	33.75	906	4323	4	1
5	0.750	2.75	2.69	2.92	2.83	0.01	0.883															5	0
6	0.750	2.82	2.67	2.85	2.83	0.02	0.846	8.3	7.6		266	4.1	0.7	2.0	188	670	25.65	4.38	12.51	1176	4191	6	0
7	0.810	2.64	2.64	2.84	2.85	0.02	0.574			1												7	0
8	0.890	2.69	2.55	3.05	3.18	0.01	0.860															8	0
9	0.860	2.60	2.67	3.12	3.25	0.01	0.916															9	0.5
10	0.550	2.78	2.78	2.88	3.02	0.01	0.719															10	0.5
11	0.510	2.95	2.74	2.90	2.77	0.01	0.767	8.5	7.5		230	10.8	0.1	2.1	151	660	45.94	0.43	8.93	642	2807	11	0
12	0.540	2.63	2.87	3.05	2.57	0.01	0.875															12	0
13	0.610	2.34	2.46	2.85	2.79	0.01	0.734	7.6	7.4	15	216	2.3	0.1	3.8	149	700	11.70	0.51	19.33	758	3561	13	0
14	0.640	2.58	2.68	2.85	2.84	0.01	0.657															14	0
15	0.640	2.60	2.68	2.85	2.84	0.01	0.746															15	0
16	0.750	2.60	2.68	2.85	3.34	0.01	1.011															16	0
17	0.690	2.47	2.65	2.81	3.20	0.01	0.886															17	0
18	0.700	2.65	2.62	2.90	2.97	0.01	0.864	8.4	7.9		256	8.3	0.1	3.5	155	750	48.46	0.58	20.43	905	4379	18	0
19	0.670	2.53	2.55	3.06	2.81	0.01	0.750															19	0
20	0.580	2.69	2.77	2.85	2.90	0.01	1.083	8.7	7.5	1300	278	8.8	0.1	3.4	151	910	42.57	0.48	16.45	730	4402	20	0
21	0.730	2.71	2.95	2.78	2.77	0.02	0.788															21	0
22	0.870	1.91	2.95	2.80	2.77	0.02	0.701															22	0
23	0.880	2.65	2.07	3.45	3.04	0.01	1.347															23	0
24	0.890	1.12	1.10	3.30	2.92	0.02	0.696															24	1
25	0.580	2.36	2.06	3.09	2.96	0.02	1.131	8.0	7.5		284	16.1	0.3	2.0	150	940	77.88	1.45	9.67	726	4547	25	0
26	0.770	2.64	2.74	2.96	2.72	0.02	0.833															26	0
27	0.770	2.70	2.91	2.78	2.98	0.02	1.034	7.9	7.8	9	280	2.8	0.1	2.4	152	900	17.98	0.64	15.41	976	5780	27	0.25
28	0.750	2.76	2.77	2.71	2.84	0.02	0.855															28	0
29	0.930	2.76	2.77	2.71	2.84	0.02	0.828															29	0
30	0.930	2.76	2.77	2.71	2.84	0.02	1.208															30	0
31	0.770	2.71	2.84	2.80	2.84	0.02	0.794															31	0

	24 Hour	Chlorine mg/l				TCR mg/	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS							
Average Lbs/ Day:												**35.33**	**2.10**	**17.06**	**852**	**4249**							
AVG	**0.867**						**0.867**			**20**		**6.91**	**0.36**	**3.11**	**156**	**783**							
MIN	**0.510**	**1.10**					**0.574**	**7.6**	**7.4**	**1**		**2.1**	**0.1**	**2.0**	**149**	**660**	**11.70**	**0.43**	**8.93**	**642**	**2807**		**0.00**
MAX	**0.930**	**3.45**				**0.02**	**1.347**		**7.9**	**1300**		**16.1**	**1.4**	**5.7**	**188**	**940**	**77.88**	**8.29**	**33.75**	**1176**	**5780**		**1.00**

2-Hour Peak Flow, <5,000 GPM:
1,118

Monthly Average Flows	01/25	0.850	04/24	0.910	07/24	1.124	10/24	0.930
	02/25	0.820	05/24	1.116	08/24	1.178	11/24	0.997
	03/25	0.867	06/24	1.046	09/24	0.956	12/24	0.986
			Annual Average Flow:				**0.982**	

Total **3.25**

high E. coli exceedance

Reading 3/1/2025 698896
Reading 4/1/2025 725768
# of days 31
Daily Average Flow= **0.867**

Reading 4/1/2024 366991
Reading 4/1/2025 725768
Annual Average Flow: **0.983** **MGD**
Capacity: **48%**

HARRIS COUNTY MUD 387 EFFLUENT MONTHLY SUMMARY — **April 2025**

TX0124907

		Grab Samples						Grab Samples				Composite Samples										
DAY	24 Hour	Chlorine mg/l				TCR mg/l	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS	TSS	NH3-N	CBOD	Chloride	TDS		Rainfall
	Flow	1.0 - 4.0				<0.1	1.800	mg/L	S.U.	CFU/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day		Inches
Permit		Plant 1	Plant 2	Plant 3	Plant 4	Final	Total Flow	4.0	6.5 - 9.0	63	NA	15	3	10	Report	739	225	45	150	Report	11094	Day	
1								7.8	7.6		284	13.0	0.1	3.8	160	810	?	?	?	?	?	1	
2																						2	
3								7.5	7.7	14	178	3.2	0.1	2.8	154	710	?	?	?	?	?	3	
4																						4	
5																						5	
6																						6	
7																						7	
8								8.8	7.9		276	3.6	0.1	4.1	147	680	?	?	?	?	?	8	
9																						9	
10								8.1	7.9	8	226	2.9	1.8	4.1	152		?	?	?	?		10	
11																						11	
12																						12	
13																						13	
14																						14	
15								6.8	7.4		276	6.8	0.1	3.5	137		?	?	?	?		15	
16																						16	
17								9.1	7.6	7	76	2.6	0.1		148	900	?	?		?	?	17	
18																						18	
19																						19	
20																						20	
21																						21	
22								8.0	7.4													22	
23																						23	
24																						24	
25																						25	
26																						26	
27																						27	
28																						28	
29																						29	
30																						30	
31																						31	

	24 Hour	Chlorine mg/l	TCR mg/	Flow MGD	DO	pH	E. coli	Alkalinity	TSS	NH3-N	CBOD	Chloride	TDS							
Average Lbs/ Day:																				
AVG	**-24.192**						**9**		**5.35**	**0.38**	**3.66**	**150**	**775**							
MIN	**0.000**	**0.00**		**0.000**	**6.8**	**7.4**	**7**		**2.6**	**0.1**	**2.8**	**137**	**680**	**0.00**	**0.00**	**0.00**	**0**	**0**		**0.00**
MAX	**0.000**	**0.00**	**0.00**	**0.000**		**7.9**	**14**		**13.0**	**1.8**	**4.1**	**160**	**900**	**0.00**	**0.00**	**0.00**	**0**	**0**		**0.00**

2-Hour Peak Flow, <5,000 GPM:

Monthly Average Flows								
	01/24	1.011	04/24	0.910	07/24	1.124	10/24	0.930
	02/24	0.897	05/24	1.116	08/24	1.178	11/24	0.997
	03/24	0.885	06/24	1.046	09/24	0.956	12/24	0.986
			Annual Average Flow:				**1.003**	

Total **0.00**

Reading 4/1/2025 725768
Reading 5/1/2025
# of days 30
Daily Average Flow= **-24.1923**

Reading 5/1/2024 394280
Reading 5/1/2025 0
Annual Average Flow: **-1.080** **MGD**
Capacity: **-1344%**

Candice Calhoun

From: Alex Murillo (IDS) <AMurillo@idseg.com>
Sent: Tuesday, June 24, 2025 2:17 PM
To: Candice Calhoun
Cc: Kameron Pugh (IDS); Crystal Swink (IDS)
Subject: Application to Amend Permit No. WQ0014347001 (Harris County MUD 387) - Notice of Deficiency
Attachments: TCEQ NOD Response Letter - 6-24-2025.pdf; Municipal Discharge Amendment Spanish NORI.docx; affected landowners addresses.docx

Good Afternoon Candice,

See attached NOD response letter for the subject permit amendment application. Please confirm if you also need a hard copy of this response letter. Let me know if you have any questions or need anything else. Thanks.

IDS Engineering Group

Alex Murillo, P.E.
Project Manager

13430 Northwest Freeway, Suite 700, Houston, Texas 77040
Main: 713.462.3178 | Direct: 832.590.7198 | Cell: 832.272.9719
AMurillo@idseg.com
Website | Facebook | Linkedin

TxEng Firm 2726 | TxSurv Firm 10110700

Candice Calhoun

From: Erin Banks - WWD <erin.banks@wwdengineering.net>
Sent: Tuesday, June 24, 2025 2:33 PM
To: Candice Calhoun
Subject: RE: Application for Proposed Permit No. WQ0016820001 - Notice of Deficiency
Attachments: Payment Submittal Form.pdf

Thank you Candice.
Here is the payment form and copy of check for fees.

Thank you,
Erin Banks, P.E.

wwdengineering
engineered wastewater solutions
State of Texas HUB Certified Firm
9217 Hwy 290 West, Suite 110
Austin, TX 78736
512-288-2111

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Tuesday, June 24, 2025 8:53 AM
To: Erin Banks - WWD <erin.banks@wwdengineering.net>
Subject: RE: Application for Proposed Permit No. WQ0016820001 - Notice of Deficiency

Good morning, Erin,

Yes ma'am, what we can do is once the response deadline has passed, I can send this over to my supervisor to issue a 30-day notice, which essentially provides an additional 30 days to provide a complete response. So, on Thursday, June 26, I can get that sent over for that notice to be issued.

Please let me know if you have any additional questions.

Regards,

Candice Calhoun

From: Alex Murillo (IDS) <AMurillo@idseg.com>
Sent: Wednesday, June 25, 2025 8:54 AM
To: Candice Calhoun
Cc: Kameron Pugh (IDS); Crystal Swink (IDS)
Subject: RE: Application to Amend Permit No. WQ0014347001 (Harris County MUD 387) - Notice of Deficiency
Attachments: affected landowners addresses.docx

Good Morning Candice,

Thanks for confirming. See attached revised mailing list file. Let me know if you need anything else.

IDS Engineering Group

Alex Murillo, P.E.
Project Manager

13430 Northwest Freeway, Suite 700, Houston, Texas 77040
Main: 713.462.3178 | Direct: 832.590.7198 | Cell: 832.272.9719
AMurillo@idseg.com
Website | Facebook | Linkedin

TxEng Firm 2726 | TxSurv Firm 10110700

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Wednesday, June 25, 2025 7:35 AM
To: Alex Murillo (IDS) <AMurillo@idseg.com>
Cc: Kameron Pugh (IDS) <KPugh@idseg.com>; Crystal Swink (IDS) <CSwink@idseg.com>
Subject: RE: Application to Amend Permit No. WQ0014347001 (Harris County MUD 387) - Notice of Deficiency

[EXTERNAL EMAIL]

Alex,

My apologies, I forgot to mention in my previous email, no hard copy response will be needed. An email response is sufficient.

Regards,

IDS Engineering Group

June 24, 2025

Ms. Candice Calhoun
Applications Review and Processing Team (MC148)
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg. F
Austin, TX 78753

Reference: Application to Amend Permit No. WQ0014347001 (EPA I.D. No. TX0124907)
Harris County Municipal Utility District No. 387 (CN600738421)
Regulated Entity Number: RN103907028
IDS Project No. 1414-001-00

Dear Ms. Calhoun:

We received your Notice of Deficiency letter dated June 20, 2025, regarding the referenced permit application. Please find our detailed responses to your comments below.

Comment No. 1 – Our records indicate that an original paper copy of the application was not received. The original paper copy and electronic copy of the application are both required. Please submit the original paper copy of the application to: Texas Commission on Environmental Quality, Water Quality Division, Application Review and Processing Team (MC 148), P.O. Box 13087, Austin, Texas 78711-3087

Response: The original paper application along with two (2) additional copies were delivered via FedEx on June 18, 2025. See attached proof of delivery.

Comment No. 2 - Core Data Form, Section V: the signature date was not provided. Please provide an updated CDF to include the signature date.

Response: The core data form was dated. See attached revised form.

Comment No. 3 - Section 8, item D of the administrative report: a public viewing location for Harris County was not provided. Please provide an updated section of the application to include a public viewing location in Harris County.

Response: Lone Star College – Creekside Center Library was added as the public viewing location for Harris County. See attached revised page.

Comment No. 4 - Landowner List: affected landowner listed as number 4 on the landowner list shows that the name and address could not be obtained. Please confirm that you could not contain any information for this landowner. If you can provide some information, please provide that information.

Response: No information was found about this property. See attached from Montgomery County Appraisal District.

Comment No. 5 - Landowner Mailing Labels: please provide the landowner list formatted for mailing labels (Avery 5160) in a Microsoft Word document.

Response: Affected landowners mailing addresses labels are attached. A separate Microsoft Word file is also being sent via email.

Comment No. 6 - The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

APPLICATION. Harris County Municipal Utility District No. 387, 1300 Post Oak Boulevard, Suite 1400, Houston, Texas 77056, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014347001 (EPA I.D. No. TX0124907) to authorize the removal of the Total Dissolved Solids limits. The domestic wastewater treatment facility is located at 25810 1/2 Gosling Road, near the city of Spring, in Harris County, Texas 77389. The discharge route is from the plant site directly to Spring Creek. TCEQ received this application on June 16, 2025. The permit application will be available for viewing and copying at (pending applicant response), (pending address), (pending city), in Harris County, Texas, and at Montgomery County South Regional Library, front desk, 2101 Lake Robbins Drive, The Woodlands, in Montgomery 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=-95.503866,30.137894&level=18 Further information may also be obtained from Harris County Municipal Utility District No. 387 at the address stated above or by calling Mr. Kameron Pugh, P.E., Senior Project Manager, IDS Engineering Group, at 713-462-3178.

Response: No errors or omissions were found.

Comment No. 7 - The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

Response: See attached Spanish NORI. A separate Microsoft Word file is also being sent via email.

If you have any further questions or need additional information, please do not hesitate to call me at (832) 590-7187 or via email at KPugh@idseg.com

Respectfully,

Kameron Pugh, P.E.
Senior Project Manager
Enclosure

\\IDSEG\FS\PROJECTS\1400\141401003 HCMUD 387 TPDES PERMIT AMENDMENT\PERMIT APPLICATION\CORRESPONDANCE\TCEQ\NOD\2023-01-23 TCEQ RESPONSE TRANSMITTAL LETTER.DOCX

June 23, 2025

Dear Customer,

The following is the proof-of-delivery for tracking number: 882070744165

Delivery Information:

Status:	Delivered	**Delivered To:**	
Signed for by:	TTONY	**Delivery Location:**	12100 PARK THIRTY FIVE CIR
Service type:	FedEx Ground		MC - 148
Special Handling:			AUSTIN, TX, 78753180800
		Delivery date:	Jun 18, 2025 15:52

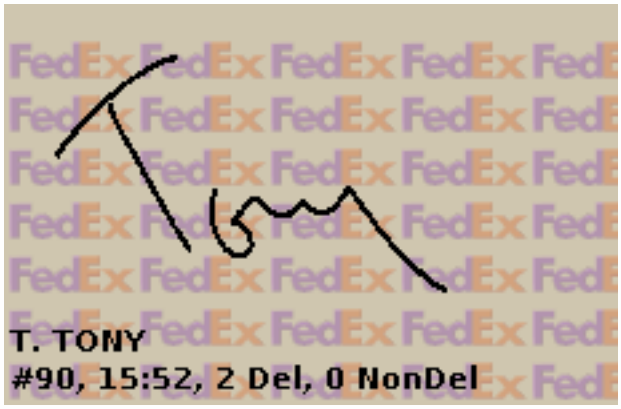
Shipping Information:

Tracking number:	882070744165	**Ship Date:**	Jun 17, 2025
		Weight:	3.0 LB/1.36 KG

Recipient:
App & Review Processing MC148, TCEQ
12100 PARK THIRTY FIVE CIR
MC - 148
AUSTIN, TX, US, 78753180800

Shipper:
Dezie Gillamac, IDS Engineering Group
13430 Northwest Freeway
Suite 700
Houston, TX, US, 77040

Reference 1414-010-02



Thank you for choosing FedEx

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

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

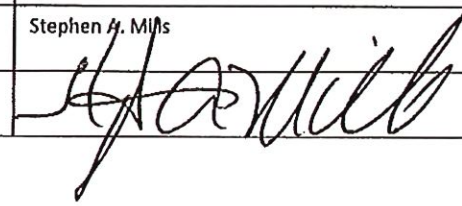
SECTION IV: Preparer Information

40. Name:	Kameron Pugh	41. Title:	Senior Project Manager

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(713) 623-4531		( ) -	kpugh@ldseg.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:	Harris County Municipal Utility District No. 387	Job Title:	Board President
Name *(In Print)*:	Stephen A. Mills	Phone:	(713) 623- 4531
Signature:		Date:	5/28/25

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: Kameron Pugh

Title: Senior Project Manager Credential: Click to enter text.

Organization Name: IDS Engineering Group

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

Phone No.: 713-462-3178 E-mail Address: KPugh@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: Lone Star College – Creekside Center Library / Montgomery County South Regional Library

Location within the building: Front Desk

Physical Address of Building: 8747 West New Harmony Trail / 2101 Lake Robbins Drive

City: Tomball / The Woodlands County: Harris / Montgomery

Contact (Last Name, First Name): Silva, Bobbye / Sosa, Steve

Phone No.: 832-761-6622/936-522-2699 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.

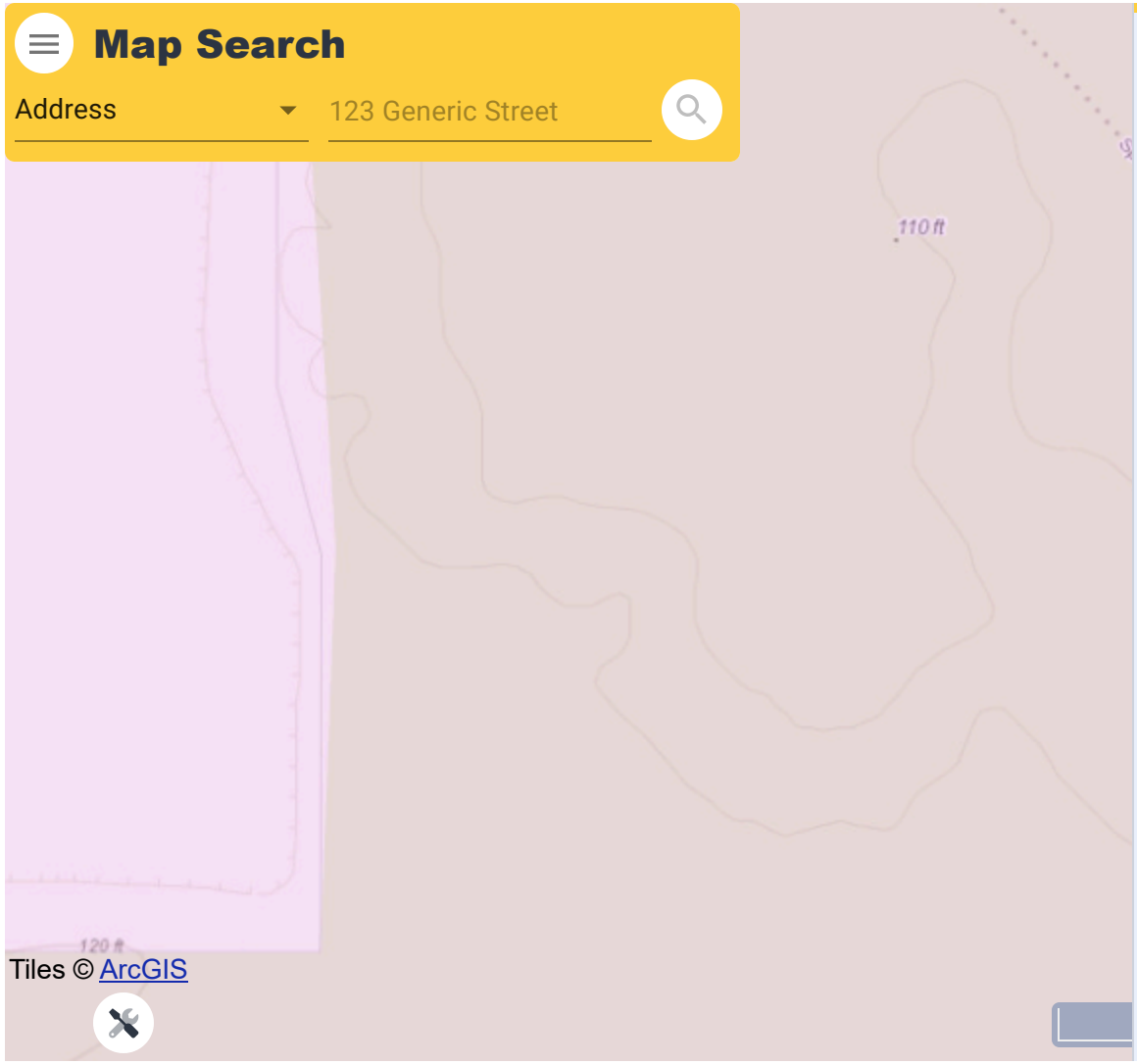
1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

   ☒ 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



PROPERTY INFORMATION

Prop ID: **167784**

Geo ID: 9240-00-35700

Situs Address:

Legal Description: TIMBER LAKES 01, LOT 373

Taxing Units: CAD,F14,GMO,HM1,JNH,MWC,SCO

Market Area: 13045.0

Legal Acreage: 0.0000

Abstract/Subdv Code: S924000

Block:

OWNER INFORMATION

Owner Name & Mailing Address

UNKNOWN OWNER (228309)
UNKNOWN UNKNOWN
UNKNOWN TX 77301

IMPROVEMENT AND LAND INFORMATION

Comisión de Calidad Ambiental del Estado de Texas

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

PERMISO NO. WQ00

SOLICITUD. *Harris County Municipal Utility District No. 387*, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0014347001 (EPA I.D. No. TX 0124907) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar *La eliminación de los límites de sólidos disueltos totales.* La planta está ubicada *25810 1/2 Gosling Road, near the city of Spring* en el Condado de *Harris*, Texas *77389*. La ruta de descarga es del sitio de la planta a *Spring Creek.* La TCEQ recibió esta solicitud el *16 de junio del 2025.* La solicitud para el permiso estará disponible para leerla y copiarla en *Lone Star College – Creekside Center Library, recepción, 8747 West New Harmony Trail, Tomball, in Harris County, Texas and at Montgomery County South Regional Library, recepción, 2101 Lake Robbins Drive, The Woodlands, in Montgomery County, Texas* antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.
Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.503866,30.137894&level=18

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

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

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

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director

Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.**

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

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

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

También se puede obtener información adicional del *Harris County Municipal Utility District No. 387* a la dirección indicada arriba o llamando a *Sr. Kameron Pugh, P.E., Senior Project Manager, IDS Engineering Group, al 713-462-3178.*

Fecha de emisión: *[Date notice issued]*

WOODLANDS TOWNSHIP
WATERWAY PLAZA TWO
SPRING TX 77389

HARRIS COUNTY FLOOD CONTROL DISTRICT
9900 NORTHWEST FWY
SPRING TX 77389-2823

MONTGOMERY COUNTY
400 N SAN JACINTO ST
CONROE TX 77301

TIMBER LAKES/RIDGE ASSOC
25610 TIMBER LAKES DR
SPRING TX 77380-1653

J-P REI SOLUTIONS LLC
15201 MASON RD STE 1000-303
CYPRESS TX 77433-5932

MOREHEAD ALBERT
1511 AVENUE C
DENTON TX 76205-694

BAILEY KEVIN DUANE
25019 SPRING CREEK DR
SPRING TX 77380-2441

FORREST GERMANY
PO BOX 130759
SPRING TX 77393-0759

MILLER CLINTON J
25011 SPRING CREEK DR
SPRING TX 77380-2441

NEAL ANGEL LEE
25007 SPRING CREEK DR
SPRING TX 77380-2441

WARGO-SUGLERIS MICHELE E
5927 SANIT LAURENT DR
AGOURA HILLS CA 91301-4634

SUTTER MICHAEL E & DIANNA
24935 SPRING CREEK DR
SPRING TX 77380-2439

UHLMANN CASEY
24923 SPRING CREEK DR
SPRING TX 77380-2439

MCKEAN LEE N JR & CAROLYN F
PO BOX 130250
THE WOODLANDS TX 77393-0250

TPDES PERMIT NO.
WQ0014347001
[For TCEQ office use only - EPA I.D. No. TX0124907]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

This major amendment supersedes and replaces TPDES Permit No. WQ0014347001 issued on November 14, 2022.

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

Harris County Municipal Utility District No. 387

whose mailing address is

1300 Post Oak Boulevard, Suite 1400
Houston, Texas 77056

is authorized to treat and discharge wastes from the Harris County Municipal Utility District 387 Wastewater Treatment Facility, SIC Code 4952

located at 25810½ Gosling Road, in Harris County, Texas 77389

directly to Spring Creek in Segment No. 1008 of the San Jacinto River Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, **November 14, 2027**.

ISSUED DATE:

For the Commission

INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through the completion of expansion to the 3.0 million gallons per day (MGD) facility, the permittee is authorized to discharge subject to the following effluent limitations:

   The annual average flow of effluent shall not exceed 1.8 million gallons per day (MGD), nor shall the average discharge during any two-hour period (2-hour peak) exceed 5,000 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg	7-day Avg	Daily Max	Single Grab	Report Daily Avg. & Daily Max.	
	mg/l (lbs/day)	mg/l	mg/l	mg/l	Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (150)	15	25	35	Two/week	Composite
Total Suspended Solids	15 (225)	25	40	60	Two/week	Composite
Ammonia Nitrogen	3 (45)	6	10	15	Two/week	Composite
Total Dissolved Solids	Report (Report)	N/A	Report	N/A	One/month	Composite
Chloride	Report (Report)	N/A	Report	N/A	One/month	Composite
E. coli, colony-forming units or most probable number per 100 ml	63	N/A	200	N/A	One/week	Grab

2. The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorine contact chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual and shall monitor total chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored twice per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

Effluent Characteristic	Discharge Limitations		Min. Self-Monitoring Requirements	
	Daily Avg	Daily Max	Report Daily Avg. & Daily Max.	
Sublethal Whole Effluent Toxicity (WET) limit 78% (Parameter 51710)				
Ceriodaphnia dubia (3-brood chronic NOEC [1])	78%	78%	1/quarter	Composite

[1] The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. A significant effect is here defined as a statistically significant difference between a specified effluent dilution and the control for sublethal effect.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the completion of expansion to the 3.0 million gallons per day (MGD) facility and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

   The annual average flow of effluent shall not exceed 3.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 8,333 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg	7-day Avg	Daily Max	Single Grab	Report Daily Avg. & Daily Max.	
	mg/l (lbs/day)	mg/l	mg/l	mg/l	Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (250)	15	25	35	Two/week	Composite
Total Suspended Solids	15 (375)	25	40	60	Two/week	Composite
Ammonia Nitrogen	2 (50)	5	10	15	Two/week	Composite
Total Dissolved Solids	Report (Report)	N/A	Report	N/A	One/month	Composite
Chloride	Report (Report)	N/A	Report	N/A	One/month	Composite
E. coli, colony-forming units or most probable number per 100 ml	63	N/A	200	N/A	One/week	Grab

2. The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorine contact chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual and shall monitor total chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored twice per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

Effluent Characteristic	Discharge Limitations		Min. Self-Monitoring Requirements	
	Daily Avg	Daily Max	Report Daily Avg. & Daily Max.	
Sublethal Whole Effluent Toxicity (WET) limit 78% (Parameter 51710)				
Ceriodaphnia dubia (3-brood chronic NOEC [1])	78%	78%	1/quarter	Composite

[1] The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. A significant effect is here defined as a statistically significant difference between a specified effluent dilution and the control for sublethal effect.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC § 305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§ 5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§ 361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in TWC § 26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

    a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with one million gallons per day or greater permitted flow.

    b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.

    c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.

    d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.

    e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.

    f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

    a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.

        i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.

b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.

c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.

d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day.

The daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

e. Bacteria concentration (*E. coli* or Enterococci) - Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).

g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

b. Grab sample - an individual sample collected in less than 15 minutes.

4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.

5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.

6. The term "biosolids" is defined as sewage sludge that has been tested or processed to meet Class A, Class AB, or Class B pathogen standards in 30 TAC Chapter 312 for beneficial use.

7. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge which is described by this permit whether or not a discharge is made for that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act (CWA); TWC §§ 26, 27, and 28; and THSC § 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.

b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge or biosolids use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.

c. Records of monitoring activities shall include the following:

i. date, time and place of sample or measurement;

ii. identity of individual who collected the sample or made the measurement.

iii. date and time of analysis;

iv. identity of the individual and laboratory who performed the analysis;

v. the technique or method of analysis; and

vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Enforcement

Division (MC 224).

7. Noncompliance Notification

   a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Except as allowed by 30 TAC § 305.132, report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective December 21, 2025, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

   b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

      i. Unauthorized discharges as defined in Permit Condition 2(g).

      ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.

      iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.

   c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.

   d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

   All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   i. One hundred micrograms per liter (100 μg/L);

   ii. Two hundred micrograms per liter (200 μg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

   iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or

   iv. The level established by the TCEQ.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   i. Five hundred micrograms per liter (500 μg/L);

   ii. One milligram per liter (1 mg/L) for antimony;

   iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or

   iv. The level established by the TCEQ.

10. Signatories to Reports

    All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

11. All POTWs must provide adequate notice to the Executive Director of the following:

    a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;

    b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and

    c. For the purpose of this paragraph, adequate notice shall include information on:

       i. The quality and quantity of effluent introduced into the POTW; and

       ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

    a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.

    b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:

        i. Violation of any terms or conditions of this permit;

        ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

        iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

    c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

    a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.

    b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

    c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

    d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.

    e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

    f. A permit may be amended, suspended and reissued, or revoked for cause in accordance

with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.

h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.

i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

3. Inspections and Entry

a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.

b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment and/or Renewal

a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:

   i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or

   ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or

   iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.

c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.

d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.

e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.

f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the

regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

   a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

   b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

   This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

   Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to TWC Chapter 11.

8. Property Rights

   A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

   The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

    The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy

    a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:

       i. the permittee;

       ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or

       iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.

b. This notification must indicate:

i. the name of the permittee;

ii. the permit number(s);

iii. the bankruptcy court in which the petition for bankruptcy was filed; and

iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.

2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge or biosolids use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:

   a. The permittee shall notify the Domestic Permits Team, Domestic Wastewater Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.

   b. The permittee shall submit a closure plan for review and approval to the Domestic Permits Team, Domestic Wastewater Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.

4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.

5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30

TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC § 7.302(b)(6).

7. Documentation

   For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §§ 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words confidential business information on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

   a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

      If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

   b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.

c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.

10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.

11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:

    a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.

    b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

    c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.

    d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.

    e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well,

container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.

f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC § 335 and must include the following, as it pertains to wastewater treatment and discharge:

   i. Volume of waste and date(s) generated from treatment process;
   ii. Volume of waste disposed of on-site or shipped off-site;
   iii. Date(s) of disposal;
   iv. Identity of hauler or transporter;
   v. Location of disposal site; and
   vi. Method of final disposal.

   The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC § 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC § 361.

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SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge. **The disposal of sludge or biosolids by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of Class A or Class AB Biosolids. This provision does not authorize the permittee to land apply biosolids on property owned, leased or under the direct control of the permittee.**

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS LAND APPLICATION

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge or biosolids.

2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.

3. The land application of processed or unprocessed chemical toilet waste, grease trap waste, grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes, or any of the wastes listed in this provision combined with biosolids, WTP residuals or domestic septage is prohibited unless the grease trap waste is added at a fats, oil and grease (FOG) receiving facility as part of an anaerobic digestion process.

B. Testing Requirements

1. Sewage sludge or biosolids shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 12) within seven (7) days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224).

2. Biosolids shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section I.C. of this permit.

TABLE 1

Pollutant	Ceiling Concentration (Milligrams per kilogram)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B biosolids pathogen requirements.

a. For sewage sludge to be classified as Class A biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge must be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC § 312.82(a)(3)(A) for specific information;

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion; or

Alternative 6 (PFRP Equivalent) - Sewage sludge that is used or disposed of must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

b. For sewage sludge to be classified as Class AB biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

   Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

   The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

   At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%; or

   Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information; or

   Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

c. Sewage sludge that meets the requirements of Class AB biosolids may be classified a Class A biosolids if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.

d. Three alternatives are available to demonstrate compliance with Class B biosolids criteria.

Alternative 1

i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.

ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;

iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and

v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

Alternative 3 - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;

iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and

v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition to the Alternatives 1 – 3, the following site restrictions must be met if Class B biosolids are land applied:

i. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.

ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remain on the land surface for 4 months or longer prior to incorporation into the soil.

iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than 4 months prior to incorporation into the soil.

iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.

v. Domestic livestock shall not be allowed to graze on the land for 30 days after application of biosolids.

vi. Turf grown on land where biosolids are applied shall not be harvested for 1 year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn.

vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of biosolids.

viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.

ix. Land application of biosolids shall be in accordance with the buffer zone requirements found in 30 TAC § 312.44.

4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 -

i. Biosolids shall be injected below the surface of the land.

ii. No significant amount of the biosolids shall be present on the land surface within one hour after the biosolids are injected.

iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the biosolids shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10-

i. Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

ii. When biosolids that are incorporated into the soil is Class A or Class AB with respect to pathogens, the biosolids shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test	- annually
PCBs	- annually

All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

Amount of biosolids (*) metric tons per 365-day period	Monitoring Frequency
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter
1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

(*) *The amount of bulk biosolids applied to the land (dry wt. basis).*

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge or biosolids for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE OR BIOSOLIDS FOR APPLICATION TO THE LAND MEETING CLASS A, CLASS AB or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A, Class AB or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

A. Pollutant Limits

Table 2

Pollutant	Cumulative Pollutant Loading Rate (pounds per acre)*
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

Pollutant	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report Only
Nickel	420
Selenium	36
Zinc	2800

*Dry weight basis

B. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B biosolids pathogen reduction requirements as defined above in Section I.B.3.

C. Management Practices

1. Bulk biosolids shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.

2. Bulk biosolids not meeting Class A requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.

3. Bulk biosolids shall be applied at or below the agronomic rate of the cover crop.

4. An information sheet shall be provided to the person who receives bulk Class A or AB biosolids sold or given away. The information sheet shall contain the following information:

   a. The name and address of the person who prepared the Class A or AB biosolids that are sold or given away in a bag or other container for application to the land.

   b. A statement that application of the biosolids to the land is prohibited except in accordance with the instruction on the label or information sheet.

   c. The annual whole sludge application rate for the biosolids application rate for the biosolids that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

1. If bulk biosolids are applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk biosolids are proposed to be applied. The notice shall include:

   a. The location, by street address, and specific latitude and longitude, of each land application site.

   b. The approximate time period bulk biosolids will be applied to the site.

   c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk biosolids.

E. Record Keeping Requirements

The documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a biosolids material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative for a period of five years. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.

2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B biosolids, if applicable).

3. A description of how the vector attraction reduction requirements are met.

4. A description of how the management practices listed above in Section II.C are being met.

5. The following certification statement:

   "I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 312.83(b) have been met for each site on which bulk biosolids are applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk biosolids shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:

   a. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.

   b. The location, by street address, and specific latitude and longitude, of each site on which biosolids are applied.

   c. The number of acres in each site on which bulk biosolids are applied.

   d. The date and time biosolids are applied to each site.

   e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.

   f. The total amount of biosolids applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224).

1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

3. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.

4. The frequency of monitoring listed in Section I.C. that applies to the permittee.

5. Toxicity Characteristic Leaching Procedure (TCLP) results.

6. PCB concentration in sludge or biosolids in mg/kg.

7. Identity of hauler(s) and TCEQ transporter number.

8. Date(s) of transport.

9. Texas Commission on Environmental Quality registration number, if applicable.

10. Amount of sludge or biosolids disposal dry weight (lbs/acre) at each disposal site.

11. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.

12. Level of pathogen reduction achieved (Class A, Class AB or Class B).

13. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B biosolids, include information on how site restrictions were met.

14. Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

15. Vector attraction reduction alternative used as listed in Section I.B.4.

16. Amount of sludge or biosolids transported in dry tons/year.

17. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge or biosolids treatment activities, shall be attached to the annual reporting form.

18. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.

    a. The location, by street address, and specific latitude and longitude.

    b. The number of acres in each site on which bulk biosolids are applied.

    c. The date and time bulk biosolids are applied to each site.

    d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk biosolids applied to each site.

    e. The amount of biosolids (i.e., dry tons) applied to each site.

    The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

A. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC § 330 concerning the quality of the sludge or biosolids disposed in a municipal solid waste landfill.

B. If the permittee generates sewage sludge and supplies that sewage sludge or biosolids to the owner or operator of a municipal solid waste landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.

C. Sewage sludge or biosolids shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 261.24. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

   Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 12) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

   The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224), by September 30 of each year.

D. Sewage sludge or biosolids shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.

E. Record Keeping Requirements

   The permittee shall develop the following information and shall retain the information for five years.

1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.

2. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224).

1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. Toxicity Characteristic Leaching Procedure (TCLP) results.

3. Annual sludge or biosolids production in dry tons/year.

4. Amount of sludge or biosolids disposed in a municipal solid waste landfill in dry tons/year.

5. Amount of sludge or biosolids transported interstate in dry tons/year.

6. A certification that the sewage sludge or biosolids meets the requirements of 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.

7. Identity of hauler(s) and transporter registration number.

8. Owner of disposal site(s).

9. Location of disposal site(s).

10. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION IV. REQUIREMENTS APPLYING TO SLUDGE OR BIOSOLIDS TRANSPORTED TO ANOTHER FACILITY FOR FURTHER PROCESSING

These provisions apply to sludge or biosolids that is transported to another wastewater treatment facility or facility that further processes sludge or biosolids. These provisions are intended to allow transport of sludge or biosolids to facilities that have been authorized to accept sludge or biosolids. These provisions do not limit the ability of the receiving facility to determine whether to accept the sludge or biosolids, nor do they limit the ability of the receiving facility to request additional testing or documentation.

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.

2. Sludge or biosolids may only be transported using a registered transporter or using an approved pipeline.

B. Record Keeping Requirements

1. For sludge transported by an approved pipeline, the permittee must maintain records of the following:

   a. the amount of sludge or biosolids transported;

   b. the date of transport;

   c. the name and TCEQ permit number of the receiving facility or facilities;

   d. the location of the receiving facility or facilities;

   e. the name and TCEQ permit number of the facility that generated the waste; and

   f. copy of the written agreement between the permittee and the receiving facility to accept sludge or biosolids.

2. For sludge or biosolids transported by a registered transporter, the permittee must maintain records of the completed trip tickets in accordance with 30 TAC § 312.145(a)(1)-(7) and amount of sludge or biosolids transported.

3. The above records shall be maintained on-site on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for at least five years.

C. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224).

1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. the annual sludge or biosolids production;

3. the amount of sludge or biosolids transported;

4. the owner of each receiving facility;

5. the location of each receiving facility; and

6. the date(s) of disposal at each receiving facility.

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OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

   This Category B facility must be operated by a chief operator or an operator holding a Class B license or higher. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift that does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

2. The facility is not located in the Coastal Management Program boundary.

3. A certified operator shall inspect the facility daily and maintain at the plant site a record of these inspections. These records shall be available at the plant site for inspection by authorized representatives of the commission for at least three years.

4. Chronic toxic criteria apply at the edge of the mixing zone. The mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge.

5. The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area and the presence of a highway easement, the permittee shall comply with the requirements of 30 TAC § 309.13(e). (See Attachment A.)

6. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.

7. The permittee shall comply with 30 TAC § 311.36, which requires the permittees of all domestic wastewater treatment facilities discharging into the Lake Houston Watershed to install dual-feed chlorination systems capable of automatically changing from one cylinder to another if gaseous chlorination is used for disinfection.

8. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Domestic Wastewater Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, one/week may be reduced to two/month in the Interim and Final phases. **A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard**

frequency schedule and submit written notice to the TCEQ Domestic Wastewater Section (MC 148). The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.

9. Prior to construction of the Final phase treatment facility, the permittee shall submit to the TCEQ Domestic Wastewater Section (MC 148) a summary transmittal letter in accordance with the requirements in 30 TAC § 217.6(d). If requested by the Domestic Wastewater Section, the permittee shall submit plans, specifications, and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the effluent limitations required on Page 2b, 2c of this permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

   Plans and specifications have been approved for the 1.8 MGD wastewater treatment facility, in accordance with 30 TAC § 217, Design Criteria for Domestic Wastewater Systems. A summary transmittal approval letter was issued November 2, 2017 (Log No. 0817/084). A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

10. The permittee shall notify the TCEQ Regional Office (MC Region 12) and the Applications Review and Processing Team (MC 148) of the Water Quality Division, as well as the Harris County Pollution Control Services Department, in writing at least forty-five days prior to the completion of the new facility on Notification of Completion Form 20007.

11. The Total Dissolved Solids and Chloride reporting requirements at Outfall 001 will expire at the expiration of this permit. The reported values will be evaluated, and the reporting requirements may be reinstated or an effluent limit added at the next permit action.

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The following pollutants may not be introduced into the treatment facility:

   a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, waste streams with a closed-cup flash point of less than 140° Fahrenheit (60° Celsius) using the test methods specified in 40 CFR § 261.21;

   b. Pollutants which will cause corrosive structural damage to the POTW, but in no case shall there be discharges with a pH lower than 5.0 standard units, unless the works are specifically designed to accommodate such discharges;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;

   d. Any pollutant, including oxygen-demanding pollutants (e.g., biochemical oxygen demand), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;

   e. Heat in amounts which will inhibit biological activity in the POTW, resulting in Interference, but in no case shall there be heat in such quantities that the temperature at the POTW treatment plant exceeds 104° Fahrenheit (40° Celsius) unless the Executive Director, upon request of the POTW, approves alternate temperature limits;

   f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

   g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

   h. Any trucked or hauled pollutants except at discharge points designated by the POTW.

2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under 40 CFR Part 403 [*rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798*].

3. The permittee shall provide adequate notification to the Executive Director, care of the Domestic Wastewater Section (MC 148) of the Water Quality Division, within 30 days subsequent to the permittee's knowledge of either of the following:

   a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and

   b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

   Any notice shall include information on the quality and quantity of effluent to be introduced into the treatment works and any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

Revised July 2007

BIOMONITORING REQUIREMENTS

CHRONIC BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency, and Methodology

   a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival, reproduction, or growth of the test organisms.

   b. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this part of this permit and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," fourth edition (EPA-821-R-02-013) or its most recent update:

      1) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*) (Method 1002.0). This test should be terminated when 60% of the surviving adults in the control produce three broods or at the end of eight days, whichever occurs first. This test shall be conducted once per quarter.

      2) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*) (Method 1000.0). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

      The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

   c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 41%, 55%, 73%, 78%, and 100% effluent. The critical dilution, defined as 73% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.

   d. This permit may be amended to require a WET limit, a chemical-specific effluent limit, a best management practice, or other appropriate actions to address toxicity to the fathead minnow. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

   e. Testing Frequency Reduction

      1) If none of the first four consecutive quarterly fathead minnow tests demonstrates significant toxicity, the permittee may submit this

information in writing and, upon approval, reduce the testing frequency to once per year.

2) If one or more of the first four consecutive quarterly fathead minnow tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until this permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant toxicity, the permittee shall resume a quarterly testing frequency for until this permit is reissued.

f. The sublethal No Observed Effect Concentration (NOEC) effluent limitation of not less than 78% (see the EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS section) is effective at the permit issue date for the water flea.

g. If a water flea test fails to pass the sublethal endpoint at the 78% effluent concentration, the testing frequency will increase to monthly until such time compliance with the NOEC effluent limitation is demonstrated for a period of three consecutive months, at which time the quarterly testing frequency may be resumed.

2. Required Toxicity Testing Conditions

a. Test Acceptance - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fail to meet the following criteria:

1) a control mean survival of 80% or greater;

2) a control mean number of water flea neonates per surviving adult of 15 or greater;

3) a control mean dry weight of surviving fathead minnow larvae of 0.25 mg or greater;

4) a control coefficient of variation percent (CV%) of 40 or less in between replicates for the young of surviving females in the water flea test; and the growth and survival endpoints in the fathead minnow test;

5) a critical dilution CV% of 40 or less for the young of surviving females in the water flea test; and the growth and survival endpoints for the fathead minnow test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test;

6) a percent minimum significant difference of 47 or less for water flea reproduction; and

7) a percent minimum significant difference of 30 or less for fathead minnow growth.

b. Statistical Interpretation

1) For the water flea survival test, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be the Fisher's exact test as described in the manual referenced in in Part 1.b.

2) For the water flea reproduction test and the fathead minnow larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the manual referenced in Part 1.b..

3) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.

4) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 78% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.

5) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution when compared to the survival, reproduction, or growth of the test organism in the control (0% effluent).

6) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 3.

7) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Item 3 will be used when making a determination of test acceptability.

8) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

1) Dilution water used in the toxicity tests must be the receiving water collected as close to the point of discharge as possible but unaffected by the discharge.

2) Where the receiving water proves unsatisfactory as a result of pre-existing instream toxicity (i.e. fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

   a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;

   b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days);

   c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.

3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.

d. Samples and Composites

1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.

2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated

sample collection must be documented in the full report.

5) The effluent samples shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.

1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.

2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TLP3B, enter a “1” if the NOEC for survival is less than the critical dilution; otherwise, enter a “0.”

2) For the water flea, Parameter TOP3B, report the NOEC for survival.

3) For the water flea, Parameter TXP3B, report the LOEC for survival.

4) For the water flea, Parameter TWP3B, enter a “1” if the NOEC for reproduction is less than the critical dilution; otherwise, enter a “0.”

5) For the water flea, Parameter TPP3B, report the NOEC for reproduction.

6) For the water flea, Parameter TYP3B, report the LOEC for reproduction.

7) For the fathead minnow, Parameter TLP6C, enter a “1” if the NOEC for survival is less than the critical dilution; otherwise, enter a “0.”

8) For the fathead minnow, Parameter TOP6C, report the NOEC for survival.

9) For the fathead minnow, Parameter TXP6C, report the LOEC for survival.

10) For the fathead minnow, Parameter TWP6C, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."

11) For the fathead minnow, Parameter TPP6C, report the NOEC for growth.

12) For the fathead minnow, Parameter TYP6C, report the LOEC for growth.

d. Enter the following codes for fathead minnow retests only:

1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

e. The permittee shall report the sublethal WET values for the 30-day average and the 7-day minimum under Parameter No. 51710 for the appropriate reporting period for the water flea. If more than one valid test was performed during the reporting period, the NOECs will be averaged arithmetically and reported as the 30-day average. The 7-day minimum value submitted should reflect the lowest sublethal NOEC results for the water flea during the reporting period.

4. Persistent Toxicity

The requirements of this Part apply only to the fathead minnow and only when a test demonstrates a significant effect at the critical dilution. Significant lethality and significant effect were defined in Part 2.b. Significant sublethality is defined as a statistically significant difference in growth/reproduction at the critical dilution when compared to the growth/reproduction in the control.

a. The permittee shall conduct a total of 2 additional tests (retests) for any test that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.

b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE action plan and schedule defined in Part 5.

If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.

c. If the two retests are performed due to a demonstration of significant

sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.

d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.

e. Regardless of whether retesting for lethal or sublethal effects, or a combination of the two, no more than one retest per month is required.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled “Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I” (EPA/600/6-91/005F) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled “Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity” (EPA/600/R-92/080) and “Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity” (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques.

The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation which identifies the pollutant(s) and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

Copies of the TRE activities report shall also be submitted to the U.S. EPA Region 6 office.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism. A copy of the TRE final report shall also be submitted to the U.S. EPA Region 6 office.

h. Based on the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.

TABLE 1 (SHEET 1 OF 4)

BIOMONITORING REPORTING

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Dates and Times Composites Collected

Date Time Date Time

No. 1 FROM: _____TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM:_____ TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

REP	Percent effluent					
	0%	41%	55%	73%	78%	100%
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
Survival Mean						
Total Mean						
CV%*						
PMSD						

*Coefficient of Variation = standard deviation x 100/mean (calculation based on young of the surviving adults)

Designate males (M), and dead females (D), along with number of neonates (x) released prior to death.

TABLE 1 (SHEET 2 OF 4)

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean number of young produced per adult significantly less than the number of young per adult in the control for the % effluent corresponding to significant nonlethal effects?

   CRITICAL DILUTION (78%): _____ YES _____ NO

PERCENT SURVIVAL

	Percent effluent					
Time of Reading	0%	41%	55%	73%	78%	100%
24h						
48h						
End of Test						

2. Fisher's Exact Test:

   Is the mean survival at test end significantly less than the control survival for the % effluent corresponding to lethality?

   CRITICAL DILUTION (78%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC\LOEC below:

   a.) NOEC survival = _____% effluent

   b.) LOEC survival = _____% effluent

   c.) NOEC reproduction = _____% effluent

   d.) LOEC reproduction = _____% effluent

TABLE 1 (SHEET 3 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL

Dates and Times Composites Collected — Date Time / Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

FATHEAD MINNOW GROWTH DATA

Effluent Concentration	Average Dry Weight in replicate chambers					Mean Dry Weight	CV%*
	A	B	C	D	E		
0%							
41%							
55%							
73%							
78%							
100%							
PMSD							

* Coefficient of Variation = standard deviation x 100/mean

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean dry weight (growth) at 7 days significantly less than the control's dry weight (growth) for the % effluent corresponding to significant nonlethal effects?

   CRITICAL DILUTION (78%): _____ YES _____ NO

TABLE 1 (SHEET 4 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW GROWTH AND SURVIVAL TEST

FATHEAD MINNOW SURVIVAL DATA

Effluent Concentration	Percent Survival in replicate chambers					Mean percent survival			CV%*
	A	B	C	D	E	24h	48h	7 day	
0%									
41%									
55%									
73%									
78%									
100%									

* Coefficient of Variation = standard deviation x 100/mean

2. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean survival at 7 days significantly less than the control survival for the % effluent corresponding to lethality?

   CRITICAL DILUTION (78%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC\LOEC below:

   a.) NOEC survival = _____% effluent

   b.) LOEC survival = _____% effluent

   c.) NOEC growth = _____% effluent

   d.) LOEC growth = _____% effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for WET testing.

1. Scope, Frequency, and Methodology

a. The permittee shall test the effluent for lethality in accordance with the provisions in this section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.

b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:

1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

A valid test result must be submitted for each reporting period. The permittee must report, and then repeat, an invalid test during the same reporting period. The repeat test shall include the control and the 100% effluent dilution and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. Except as discussed in item 2.b., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

d. This permit may be amended to require a WET limit, a Best Management Practice (BMP), Chemical-Specific (CS) limits, or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation after multiple toxic events.

e. As the dilution series specified in the Chronic Biomonitoring Requirements includes a 100% effluent concentration, the results from those tests may fulfill the requirements of this Section; any tests performed in the proper time interval may be substituted. Compliance will be evaluated as specified in item a. The 50% survival in 100% effluent for a 24-hour period standard applies to all tests utilizing a 100% effluent dilution, regardless of whether the results are submitted to comply with the minimum testing frequency defined in item b.

2. Required Toxicity Testing Conditions

a. Test Acceptance - The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.

b. Dilution Water - In accordance with item 1.c., the control and dilution water shall normally consist of standard, synthetic, moderately hard, reconstituted water. If the permittee utilizes the results of a chronic test to satisfy the requirements in item 1.e., the permittee may use the receiving water or dilution water that meets the requirements of item 2.a as the control and dilution water.

c. Samples and Composites

1) The permittee shall collect one composite sample from Outfall 001.

2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.

5) The effluent sample shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.

1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, and October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

4. Persistent Mortality

The requirements of this part apply when a toxicity test demonstrates significant lethality, which is defined as a mean mortality of 50% or greater of organisms exposed to the 100% effluent concentration for 24 hours.

a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.

b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, the permittee

shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the

progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

Copies of the TRE activities report shall also be submitted to the U.S. EPA Region 6 office.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate

toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism. A copy of the TRE final report shall also be submitted to the U.S. EPA Region 6 office.

h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

The permittee may be exempted from complying with 30 TAC § 307.6(e)(2)(B) upon proving that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g., metals) form a salt compound. Following the exemption, this permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

TABLE 2 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014347001, EPA I.D. No. TX0124907, to discharge to water in the state.

Issuing Office:	Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	Harris County Municipal Utility District No. 387 1300 Post Oak Boulevard, Suite 1400, Houston, Texas 77056
Prepared By:	J. Alfonso Martinez III Domestic Permits Team Domestic Wastewater Section (MC 148) Water Quality Division (512) 239-4668
Date:	September 24, 2025
Permit Action:	Major Amendment without renewal

1. EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit includes an expiration date of **November 14, 2027**.

2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment of the existing permit to authorize the removal of the Total Dissolved Solids limits. The existing wastewater treatment facility serves the Woodlands Village of Creekside Park.

3. FACILITY AND DISCHARGE LOCATION

The plant site is located at 25810½ Gosling Road, in Harris County, Texas 77389.

Outfall Location:

Outfall Number	Latitude	Longitude
001	30.139414 N	95.499230 W

The treated effluent is discharged directly to Spring Creek in Segment No. 1008 of the San Jacinto River Basin. The designated uses for Segment No. 1008 are primary contact recreation, public water supply, and high aquatic life use.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The Harris County Municipal Utility District 387 Wastewater Treatment Facility is an

activated sludge process plant operated in the complete mix mode. Treatment units in the Interim phase include a centralized headworks with a fine mechanical screen, twenty-four aeration basins, six final clarifiers, twenty-four sludge digesters, four chlorine contact and dechlorination chambers. The Final phase will include a centralized headworks with a fine mechanical screen, thirty six aeration basins, eight final clarifiers, thirty-six sludge digesters, five chlorine contact and a dechlorination chambers. The facility is operating in the Interim phase.

The draft permit authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

5. INDUSTRIAL WASTE CONTRIBUTION

The draft permit includes pretreatment requirements that are appropriate for a facility of this size and complexity. The Harris County Municipal Utility District 387 WWTP does not appear to receive significant industrial wastewater contributions. Based on the information provided by the permittee in the most recent TPDES permit application, the TCEQ determined that there are no significant industrial wastewater contributions currently being discharged to the permittee's POTW.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

The following is a summary of the applicant's effluent monitoring data for the period May 2023 through May 2025. The average of Daily Average value is computed by the averaging of all 30-day average values for the reporting period for each parameter: flow, five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), total dissolved solids (TDS) and chloride. The average of Daily Average value for *Escherichia coli* (*E. coli*) in colony-forming units (CFU) or most probable number (MPN) per 100 ml is calculated via geometric mean.

Parameter	Average of Daily Avg
Flow, MGD	1.0
$CBOD_5$, mg/l	3.3
TSS, mg/l	4.3
TDS, mg/l	777
NH_3-N, mg/l	0.4
Chloride, mg/l	149
E. coli, CFU or MPN per 100 ml	4.0

7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

The effluent limitations and monitoring requirements for those parameters that are limited in the draft permit are as follows:

A. INTERIM PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 1.8 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 5,000 gallons per minute (gpm).

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	10	150	15	25
TSS	15	225	25	40
TDS	Report	Report	N/A	Report
NH_3-N	3	45	6	10
Chloride	Report	Report	N/A	Report
DO (minimum)	4.0	N/A	N/A	N/A
E. coli, CFU or MPN per 100 ml	63	N/A	N/A	200

Sublethal Whole Effluent Toxicity (WET) limit 78% (Parameter 51710)

Ceriodaphnia dubia (3-brood chronic NOEC [1])	78%	78%

[1] The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. A significant effect is here defined as a statistically significant difference between a specified effluent dilution and the control for sublethal effect.

The pH shall not be less than 6.5 standard units (SU) nor greater than 9.0 standard units and shall be monitored once per week by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorine contact chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual and shall monitor total chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Two/week
TSS	Two/week
TDS	One/month
NH_3-N	Two/week
Chloride	One/month
DO	Two/week
E. coli	One/week
Sublethal WET Limit	One/quarter

B. FINAL PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 3.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 8,333 gpm.

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	10	250	15	25
TSS	15	375	25	40
TDS	Report	Report	N/A	Report
NH_3-N	2	50	5	10
Chloride	Report	Report	N/A	Report
DO (minimum)	4.0	N/A	N/A	N/A
E. coli, CFU or MPN/100 ml	63	N/A	N/A	200

Sublethal Whole Effluent Toxicity (WET) limit 78% (Parameter 51710)

Ceriodaphnia dubia (3-brood chronic NOEC [1])	78%	78%

[1] The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. A significant effect is here defined as a statistically significant difference between a specified effluent dilution and the control for sublethal effect.

The pH shall not be less than 6.5 SU nor greater than 9.0 SU and shall be monitored once per week by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorine contact chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual and shall monitor total chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Two/week
TSS	Two/week
TDS	One/month
NH_3-N	Two/week
Chloride	One/month
DO	Two/week
E. coli	One/week
Sublethal WET Limit	One/quarter

C. SEWAGE SLUDGE REQUIREMENTS

The draft permit authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

D. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 305, which references 40 Code of Federal Regulations (CFR) Part 403, "General Pretreatment Regulations for Existing and New Sources of Pollution" *[rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798].* The permit includes specific requirements that establish responsibilities of local government, industry, and the public to implement the standards to control pollutants which pass through or interfere with treatment processes in publicly owned treatment works or which may contaminate the sewage sludge. This permit has appropriate pretreatment language for a facility of this size and complexity.

E. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

(1) The draft permit includes chronic freshwater biomonitoring requirements as follows. The permit requires five dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 41%, 55%, 73%, 78%, and 100%. The low-flow effluent concentration (critical dilution) is defined as 73% effluent. The critical dilution is in accordance with the "Aquatic Life Criteria" section of the "Water Quality Based Effluent Limitations/Conditions" section.

(a) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.

(b) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.

(2) The draft permit includes the following minimum 24-hour acute freshwater biomonitoring requirements at a frequency of once per six months:

(a) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*).

(b) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*).

F. SUMMARY OF CHANGES FROM APPLICATION

None.

G. SUMMARY OF CHANGES FROM EXISTING PERMIT

Based on the new harmonic mean calculations for Spring Creek, the permittee has proposed a major amendment to remove the TDS limit from the permit.

Based on dissolved solids screening, the Standards Implementation Team recommends removal of the TDS limit. The Standards Implementation Team recommends reporting for TDS based on a TDS screen.

The testing frequency has been reduced based on the DMR data that was reviewed for the amendment request and in addition, chlorides has also been reduced in testing frequency.

Dilution series for the WET testing has been updated as well based on the new harmonic mean calculations and 7Q2 flow for Spring Creek.

Other Requirement No. 11 of the existing permit has been removed since the WET limits have gone into effect in September 14, 2025.

The WET limits have been revised to remove the reporting requirements placing the limit effective.

Other Requirement No. 11 of the draft permit has been added to the draft permit for the reporting requirements of TDS and Chloride.

8. DRAFT PERMIT RATIONALE

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated in Title 40 of the CFR require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines.

Effluent limitations for maximum and minimum pH are in accordance with 40 CFR § 133.102(c) and 30 TAC § 309.1(b). The effluent limitations for pH of 6.5 SU minimum and 9.0 SU maximum have been continued in the draft permit.

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged directly to Spring Creek in Segment No. 1008 of the San Jacinto River Basin. The designated uses for Segment No. 1008 are primary contact recreation, public water supply, and high aquatic life use. The effluent limitations in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and/or revisions.

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES; September 14, 1998; October 21, 1998, update). To make this determination for TPDES permits, TCEQ and

EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Segment No. 1008 is not currently listed on the State's inventory of impaired and threatened waters (the 2024 CWA § 303(d) list).

The pollutant analysis of treated effluent provided by the permittee in the application indicated 783 mg/l total dissolved solids (TDS), and 156 mg/l chloride present in the effluent. The segment criteria for Segment No. 1008 are 450 mg/l for TDS, 50 mg/l for sulfate, and 100 mg/l for chlorides. Based on dissolved solids screening, no additional limits or monitoring requirements are needed for total dissolved solids, chloride, or sulfate. See Attachment A of this Fact Sheet.

One finalized Total Maximum Daily Load (TMDL) Project is available for this segment: *Fifteen Total Maximum Daily Loads for Indicator Bacteria in Watersheds Upstream of Lake Houston For Segment Numbers 1004E, 1008, 1008H, 1009, 1009C, 1009D, 1009E, 1010, and 1011* (Project No. 82). Addendums to the original Project No. 82 TMDL subsequently added additional assessment units to the original TMDL project.

On April 6, 2011, the Texas Commission on Environmental Quality (TCEQ) adopted Fifteen Total Maximum Daily Loads for Indicator Bacteria in Watersheds Upstream of Lake Houston. The EPA approved the total maximum daily load (TMDL) on June 29, 2011. The TMDL addresses elevated levels of bacteria in nine classified and unclassified segments (Stewarts Creek - 1004E; Spring Creek - 1008; Willow Creek - 1008H; Cypress Creek - 1009; Faulkey Gully - 1009C; Spring Gully - 1009D; Little Cypress Creek - 1009E; Caney Creek - 1010; and Peach Creek - 1011) in this watershed. This project takes a watershed approach, so all assessment units in the TMDL segments and in several additional unclassified segments (Mill Creek - 1008A; Upper Panther Branch - 1008B; Lower Panther Branch - 1008C ; Metzler Creek - 1008D; Bear Branch - 1008E; Walnut Creek - 1008I; Brushy Creek - 1008J; Arnold Branch - 1008K; Mink Branch - 1008L; Sulphur Branch - 1008M; Dry Creek - 1009A; Dry Gully - 1009B; Mound Creek - 1009F; Dry Gully - 1009G; Dry Creek - 1010A; White Oak Creek - 1010B; and Spring Branch - 1010C) are also subject to this TMDL.

The waste load allocation (WLA) for wastewater treatment facilities was established as the permitted flow for each facility multiplied by one-half the geometric mean criterion for bacteria. Future growth from existing or new permitted sources is not limited by these TMDLs as long as the sources do not exceed the limits of one-half the bacteria geometric mean criterion for *E. coli*. To ensure that effluent limitations for this discharge are consistent with the WLAs provided in the TMDL, a concentration

based effluent limitation for *E. coli* of 63 MPN per 100 ml has been continued in the draft permit.

The effluent limitations and conditions in the draft permit comply with EPA-approved portions of the 2018 Texas Surface Water Quality Standards (TSWQS), 30 TAC §§ 307.1 - 307.10, effective March 1, 2018; 2014 TSWQS, effective March 6, 2014; 2010 TSWQS, effective July 22, 2010; and 2000 TSWQS, effective July 26, 2000. The effluent limitations and/or conditions in the draft permit comply with the requirements in 30 TAC Chapter 311: Watershed Protection, Subchapter D: Water Quality Management within Lake Houston Watershed.

(2) CONVENTIONAL PARAMETERS

Effluent limitations for the conventional effluent parameters (i.e., Five-Day Biochemical Oxygen Demand or Five-Day Carbonaceous Biochemical Oxygen Demand, Ammonia Nitrogen, etc.) are based on stream standards and waste load allocations for water quality-limited streams as established in the TSWQS and the State of Texas Water Quality Management Plan (WQMP).

The existing effluent limits have been reviewed for consistency with the State of Texas WQMP. The existing limits are consistent with the approved WQMP.

The effluent limitations in the draft permit meet the requirements for secondary treatment and the requirements for disinfection according to 30 TAC Chapter 309, Subchapter A: Effluent Limitations.

(3) COASTAL MANAGEMENT PLAN

The facility is not located in the Coastal Management Program boundary.

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

The Texas Surface Water Quality Standards (30 TAC Chapter 307) state that surface waters will not be toxic to man, or to terrestrial or aquatic life. The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

Water quality-based effluent limitations are calculated from freshwater aquatic life criteria found in Table 1 of the Texas Surface Water Quality Standards (30 TAC Chapter 307).

Acute freshwater criteria are applied at the edge of the zone of initial dilution (ZID), and chronic freshwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 20 feet upstream and 60 feet downstream from the point where the discharge enters Spring Creek. The aquatic life mixing zone for this discharge is defined as 100 feet upstream and 300 feet downstream from the point where the discharge enters Spring Creek.

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the permitted flow of 3.0 MGD and the 7-day, 2-year (7Q2) flow of 1.71 cubic feet per second (cfs) for Spring Creek. The estimated dilution at the edge of the ZID is calculated using the permitted flow of 3.0 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %:	91.57%	Chronic Effluent %:	73.08%

Waste load allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long-term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12). Assumptions used in deriving the effluent limitations include segment values for hardness, chlorides, pH, and total suspended solids (TSS) according to the segment-specific values contained in the TCEQ guidance document "Procedures to Implement the Texas Surface Water Quality Standards." The segment values are 46 mg/l for hardness (as calcium carbonate), 45 mg/l chlorides, 6.8 SU for pH, and 8 mg/l for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are

required when analytical data reported in the application exceeds 85% of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70% of the calculated daily average water quality-based effluent limitation. See Attachment B of this Fact Sheet.

(b) PERMIT ACTION

No Analytical data was screened against calculated water quality-based effluent limitations for the protection of aquatic life. This was due that the major amendment without renewal request was for the removal of the TDS limit only.

(3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

(a) SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue and drinking water found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation and drinking water criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the permitted flow of 3.0 MGD and the harmonic mean flow of 2.62 cfs for Spring Creek. The following critical effluent percentage is being used:

Human Health Effluent %: 63.92%

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent limitations for aquatic life protection. A 99th percentile confidence level in the long-term average calculation is used with only one long-term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70% and 85% of the calculated daily average water quality-based effluent limitation. See Attachment B of this Fact Sheet.

(b) PERMIT ACTION

No Analytical data was screened against calculated water quality-based effluent limitations for human health protection. This was due that the major amendment without renewal request was for the removal of the TDS limit only.

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 1008, which receives the discharge from this facility, is designated as a public water supply. The discharge point is located at a distance greater than three miles from the classified segment. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable due to the distance between the discharge point and the classified segment.

(b) PERMIT ACTION

None.

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

TCEQ has determined that there may be pollutants present in the effluent that may have the potential to cause toxic conditions in the receiving stream. Whole effluent biomonitoring is the most direct measure of potential toxicity that incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity.

The existing permit includes chronic freshwater biomonitoring requirements. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee has performed twelve chronic fathead minnow tests, with zero demonstrations of significant toxicity (i.e., zero failures)

The sublethal WET limit of 78% for the water flea is retained. Therefore, a reasonable potential (RP) determination was not performed for this test species.

A RP determination was performed in accordance with 40 CFR §122.44(d)(1)(ii) to determine whether the discharge will reasonably be expected to cause or contribute to an exceedance of a state water quality standard or criterion within that standard. Each test species is evaluated separately. The RP determination is based on representative data from the previous three years of chronic WET testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to the EPA dated December 28, 2015, and approved by the EPA in a letter dated December 28, 2015. With zero failures by the fathead minnow, a determination of no RP was made. WET limits are not required, and this test species is eligible for the testing frequency reduction.

(b) PERMIT ACTION

The test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge. This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

(6) WHOLE EFFLUENT TOXICITY CRITERIA (24-HOUR ACUTE)

(a) SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring language. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee has performed twelve 24-hour acute tests, with zero demonstrations of significant mortality (i.e., zero failures)

(b) PERMIT ACTION

The draft permit includes 24-hour 100% acute biomonitoring tests for the life of the permit.

9. WATER QUALITY VARIANCE REQUESTS

No variance requests have been received.

10. PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application until the deadline

for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact J. Alfonso Martinez III at (512) 239-4668.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

A. PERMIT(S)

TPDES Permit No. WQ0014347001 issued on November 14, 2022.

B. APPLICATION

Application received on June 16, 2025.

C. MEMORANDA

Interoffice Memoranda from the Water Quality Assessment Section of the TCEQ Water Quality Division. Interoffice Memorandum from the Pretreatment Team of the TCEQ Water Quality Division.

D. MISCELLANEOUS

Federal Clean Water Act § 402; Texas Water Code § 26.027; 30 TAC Chapters 30,

305, 309, 312, and 319; Commission policies; and U.S. Environmental Protection Agency guidelines.

Texas Surface Water Quality Standards, 30 TAC §§ 307.1 - 307.10.

Procedures to Implement the Texas Surface Water Quality Standards (IP), Texas Commission on Environmental Quality, June 2010, as approved by the U.S. Environmental Protection Agency, and the IP, January 2003, for portions of the 2010 IP not approved by the U.S. Environmental Protection Agency.

Texas 2024 CWA § 303(d) List, Texas Commission on Environmental Quality, June 26, 2024; approved by the EPA on November 13, 2024.

Texas Natural Resource Conservation Commission, Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, Document No. 98-001.000-OWR-WQ, May 1998.

Fifteen Total Maximum Daily Loads for Indicator Bacteria in Watersheds Upstream of Lake Houston For Segment Numbers 1004E, 1008, 1008H, 1009, 1009C, 1009D, 1009E, 1010, and 1011 (TMDL Project No. 82).

Attachment A: Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Menu 3 - Discharge to a Perennial Stream or River

Applicant Name:	**Harris County Municipal Utility District No. 387**
Permit Number, Outfall:	**14347001**
Segment Number:	**1008**

Enter values needed for screening:			**Data Source (edit if different)**
QE - Average effluent flow	**3**	MGD	
QS - Perennial stream harmonic mean flow	**2.62**	cfs	Critical conditions memo
QE - Average effluent flow	**2.11**	cfs	Calculated
CA - TDS - ambient segment concentration	**198**	mg/L	Draft 2026 IP, Appendix D
CA - chloride - ambient segment concentration	**45**	mg/L	Draft 2026 IP, Appendix D
CA - sulfate - ambient segment concentration	**10**	mg/L	Draft 2026 IP, Appendix D
CC - TDS - segment criterion	**450**	mg/L	2014 TSWQS, Appendix A
CC - chloride - segment criterion	**100**	mg/L	2014 TSWQS, Appendix A
CC - sulfate - segment criterion	**50**	mg/L	2014 TSWQS, Appendix A
CE - TDS - average effluent concentration	**803**	mg/L	Last 3 years of data
CE - chloride - average effluent concentration	**157**	mg/L	Permit application
CE - sulfate - average effluent concentration	**50.2**	mg/L	Permit application

Permit Limit Calculations

TDS

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE	762.91
Calculate the LTA	LTA = WLA * 0.93	709.51
Calculate the daily average	Daily Avg. = LTA * 1.47	**1042.97**
Calculate the daily maximum	Daily Max. = LTA * 3.11	**2206.56**
Calculate 70% of the daily average	70% of Daily Avg. =	730.08
Calculate 85% of the daily average	85% of Daily Avg. =	886.53

No permit limitations needed if:	**803**	≤	**730.08**		
Reporting needed if:	**803**	>	**730.08**	**but ≤**	**886.53**
Permit limits may be needed if:	**803**	>	**886.53**		

Reporting needed for TDS

Chloride

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE		168.29		
Calculate the LTA	LTA = WLA * 0.93		156.51		
Calculate the daily average	Daily Avg. = LTA * 1.47		**230.07**		
Calculate the daily maximum	Daily Max. = LTA * 3.11		**486.76**		
Calculate 70% of the daily average	70% of Daily Avg. =		161.05		
Calculate 85% of the daily average	85% of Daily Avg. =		195.56		
No permit limitations needed if:	**157**	**≤**	**161.05**		
Reporting needed if:	**157**	**>**	**161.05**	**but ≤**	**195.56**
Permit limits may be needed if:	**157**	**>**	**195.56**		

No permit limitations needed for chloride

Sulfate

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE		99.67		
Calculate the LTA	LTA = WLA * 0.93		92.69		
Calculate the daily average	Daily Avg. = LTA * 1.47		**136.26**		
Calculate the daily maximum	Daily Max. = LTA * 3.11		**288.27**		
Calculate 70% of the daily average	70% of Daily Avg. =		95.38		
Calculate 85% of the daily average	85% of Daily Avg. =		115.82		
No permit limitations needed if:	**50.2**	**≤**	**95.38**		
Reporting needed if:	**50.2**	**>**	**95.38**	**but ≤**	**115.82**
Permit limits may be needed if:	**50.2**	**>**	**115.82**		

No permit limitations needed for sulfate

Attachment B: Calculated Water Quality Based Effluent Limitations

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER

The water quality-based effluent limitations developed below are calculated using:

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life
Table 2, 2018 Texas Surface Water Quality Standards for Human Health
"Procedures to Implement the Texas Surface Water Quality Standards,"

PERMIT INFORMATION

Permittee Name:	Harris County Municipal Utility District No. 387
TPDES Permit No.:	WQ0014347001
Outfall No.:	001
Prepared by:	J. Alfonso Martinez III
Date:	September 10, 2025

DISCHARGE INFORMATION

Receiving Waterbody:	Spring Creek
Segment No.:	1008
TSS (mg/L):	8
pH (Standard Units):	6.8
Hardness (mg/L as $CaCO_3$):	46
Chloride (mg/L):	45
Effluent Flow for Aquatic Life (MGD):	3
Critical Low Flow [7Q2] (cfs):	1.71
% Effluent for Chronic Aquatic Life (Mixing Zone):	73.08
% Effluent for Acute Aquatic Life (ZID):	91.57
Effluent Flow for Human Health (MGD):	3
Harmonic Mean Flow (cfs):	2.62
% Effluent for Human Health:	63.92
Human Health Criterion (select: PWS, FISH, or INC)	**PWS**

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio (WER)*	*Source*
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*FW Chronic Criterion (µg/L)*	*WLAa (µg/L)*	*WLAc (µg/L)*	*LTAa (µg/L)*	*LTAc (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*

Aldrin	3.0	N/A	3.28	N/A	1.88	N/A	2.75	5.83
Aluminum	991	N/A	1082	N/A	620	N/A	911	1928
Arsenic	340	150	683	378	391	291	427	904
Cadmium	4.0	0.143	17.8	0.792	10.2	0.610	0.896	1.89
Carbaryl	2.0	N/A	2.18	N/A	1.25	N/A	1.83	3.89
Chlordane	2.4	0.004	2.62	0.00547	1.50	0.00421	0.00619	0.0131
Chlorpyrifos	0.083	0.041	0.0906	0.0561	0.0519	0.0432	0.0635	0.134
Chromium (trivalent)	302	39	1591	259	912	200	293	621
Chromium (hexavalent)	15.7	10.6	17.1	14.5	9.82	11.2	14.4	30.5
Copper	6.8	4.9	20.9	18.7	12.0	14.4	17.5	37.2
Cyanide (free)	45.8	10.7	50.0	14.6	28.7	11.3	16.5	35.0
4,4'-DDT	1.1	0.001	1.20	0.00137	0.688	0.00105	0.00154	0.00327
Demeton	N/A	0.1	N/A	0.137	N/A	0.105	0.154	0.327
Diazinon	0.17	0.17	0.186	0.233	0.106	0.179	0.156	0.330
Dicofol [Kelthane]	59.3	19.8	64.8	27.1	37.1	20.9	30.6	64.8
Dieldrin	0.24	0.002	0.262	0.00274	0.150	0.00211	0.00309	0.00655
Diuron	210	70	229	95.8	131	73.8	108	229
Endosulfan I (*alpha*)	0.22	0.056	0.240	0.0766	0.138	0.0590	0.0867	0.183
Endosulfan II (*beta*)	0.22	0.056	0.240	0.0766	0.138	0.0590	0.0867	0.183
Endosulfan sulfate	0.22	0.056	0.240	0.0766	0.138	0.0590	0.0867	0.183
Endrin	0.086	0.002	0.0939	0.00274	0.0538	0.00211	0.00309	0.00655
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0137	N/A	0.0105	0.0154	0.0327
Heptachlor	0.52	0.004	0.568	0.00547	0.325	0.00421	0.00619	0.0131
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	0.08	1.23	0.109	0.705	0.0843	0.123	0.262
Lead	27	1.07	158	7.72	90.6	5.95	8.74	18.4
Malathion	N/A	0.01	N/A	0.0137	N/A	0.0105	0.0154	0.0327
Mercury	2.4	1.3	2.62	1.78	1.50	1.37	2.01	4.25
Methoxychlor	N/A	0.03	N/A	0.0411	N/A	0.0316	0.0464	0.0983
Mirex	N/A	0.001	N/A	0.00137	N/A	0.00105	0.00154	0.00327
Nickel	243	27.0	583	81.1	334	62.4	91.7	194
Nonylphenol	28	6.6	30.6	9.03	17.5	6.95	10.2	21.6
Parathion (ethyl)	0.065	0.013	0.0710	0.0178	0.0407	0.0137	0.0201	0.0425
Pentachlorophenol	7.1	5.5	7.79	7.49	4.46	5.77	6.56	13.8
Phenanthrene	30	30	32.8	41.1	18.8	31.6	27.5	58.3
Polychlorinated Biphenyls [PCBs]	2.0	0.014	2.18	0.0192	1.25	0.0148	0.0216	0.0458
Selenium	20	5	21.8	6.84	12.5	5.27	7.74	16.3
Silver	0.8	N/A	11.3	N/A	6.47	N/A	9.51	20.1
Toxaphene	0.78	0.0002	0.852	0.000274	0.488	0.000211	0.000309	0.000655
Tributyltin [TBT]	0.13	0.024	0.142	0.0328	0.0814	0.0253	0.0371	0.0786
2,4,5 Trichlorophenol	136	64	149	87.6	85.1	67.4	99.1	209
Zinc	61	61	222	280	127	216	186	395

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Water and Fish Criterion (µg/L)*	*Fish Only Criterion (µg/L)*	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1.0	115	1150	1.56	1.45	2.13	4.52
Aldrin	1.146E-05	1.147E-05	1.147E-04	0.000017 9	0.000016 7	0.000024 5	0.000051 8
Anthracene	1109	1317	13170	1735	1614	2371	5018
Antimony	6	1071	10710	9.39	8.73	12.8	27.1
Arsenic	10	N/A	N/A	28.8	26.8	39.3	83.2
Barium	2000	N/A	N/A	3129	2910	4277	9049

Benzene	5	581	5810	7.82	7.27	10.6	22.6
Benzidine	0.0015	0.107	1.07	0.00235	0.00218	0.00320	0.00678
Benzo(*a*)anthracene	0.024	0.025	0.25	0.0375	0.0349	0.0513	0.108
Benzo(*a*)pyrene	0.0025	0.0025	0.025	0.00391	0.00364	0.00534	0.0113
Bis(chloromethyl)ether	0.0024	0.2745	2.745	0.00375	0.00349	0.00513	0.0108
Bis(2-chloroethyl)ether	0.60	42.83	428.3	0.939	0.873	1.28	2.71
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	9.39	8.73	12.8	27.1
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	16.0	14.8	21.8	46.1
Bromoform [Tribromomethane]	66.9	1060	10600	105	97.3	143	302
Cadmium	5	N/A	N/A	31.6	29.4	43.1	91.3
Carbon Tetrachloride	4.5	46	460	7.04	6.55	9.62	20.3
Chlordane	0.0025	0.0025	0.025	0.00391	0.00364	0.00534	0.0113
Chlorobenzene	100	2737	27370	156	145	213	452
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	11.7	10.9	16.0	33.9
Chloroform [Trichloromethane]	70	7697	76970	110	102	149	316
Chromium (hexavalent)	62	502	5020	97.0	90.2	132	280
Chrysene	2.45	2.52	25.2	3.83	3.56	5.23	11.0
Cresols [Methylphenols]	1041	9301	93010	1629	1515	2226	4710
Cyanide (free)	200	N/A	N/A	313	291	427	904
4,4'-DDD	0.002	0.002	0.02	0.00313	0.00291	0.00427	0.00904
4,4'-DDE	0.00013	0.00013	0.0013	0.000203	0.000189	0.000278	0.000588
4,4'-DDT	0.0004	0.0004	0.004	0.000626	0.000582	0.000855	0.00180
2,4'-D	70	N/A	N/A	110	102	149	316
Danitol [Fenpropathrin]	262	473	4730	410	381	560	1185
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	0.266	0.247	0.363	0.769
m-Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	504	468	688	1457
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	939	873	1283	2714
p-Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	N/A	117	109	160	339
3,3'-Dichlorobenzidine	0.79	2.24	22.4	1.24	1.15	1.68	3.57
1,2-Dichloroethane	5	364	3640	7.82	7.27	10.6	22.6
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	11.0	10.2	14.9	31.6
Dichloromethane [Methylene Chloride]	5	13333	133330	7.82	7.27	10.6	22.6
1,2-Dichloropropane	5	259	2590	7.82	7.27	10.6	22.6
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	4.38	4.07	5.98	12.6
Dicofol [Kelthane]	0.30	0.30	3	0.469	0.436	0.641	1.35
Dieldrin	2.0E-05	2.0E-05	2.0E-04	0.000031 3	0.000029 1	0.000042 7	0.000090 4
2,4-Dimethylphenol	444	8436	84360	695	646	949	2009
Di-*n*-Butyl Phthalate	88.9	92.4	924	139	129	190	402
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	7.97E-07	1.22E-07	1.13E-07	1.66E-07	3.52E-07
Endrin	0.02	0.02	0.2	0.0313	0.0291	0.0427	0.0904
Epichlorohydrin	53.5	2013	20130	83.7	77.8	114	242
Ethylbenzene	700	1867	18670	1095	1018	1497	3167
Ethylene Glycol	46744	1.68E+07	1.68E+08	73129	68010	99974	211510
Fluoride	4000	N/A	N/A	6258	5820	8555	18099
Heptachlor	8.0E-05	0.0001	0.001	0.000125	0.000116	0.000171	0.000361
Heptachlor Epoxide	0.00029	0.00029	0.0029	0.000454	0.000422	0.000620	0.00131
Hexachlorobenzene	0.00068	0.00068	0.0068	0.00106	0.000989	0.00145	0.00307
Hexachlorobutadiene	0.21	0.22	2.2	0.329	0.306	0.449	0.950
Hexachlorocyclohexane (*alpha*)	0.0078	0.0084	0.084	0.0122	0.0113	0.0166	0.0352
Hexachlorocyclohexane (*beta*)	0.15	0.26	2.6	0.235	0.218	0.320	0.678
Hexachlorocyclohexane (*gamma*) [Lindane]	0.2	0.341	3.41	0.313	0.291	0.427	0.904
Hexachlorocyclopentadiene	10.7	11.6	116	16.7	15.6	22.8	48.4
Hexachloroethane	1.84	2.33	23.3	2.88	2.68	3.93	8.32
Hexachlorophene	2.05	2.90	29	3.21	2.98	4.38	9.27

4,4'-Isopropylidenediphenol	1092	15982	159820	1708	1589	2335	4941
Lead	1.15	3.83	38.3	9.48	8.82	12.9	27.4
Mercury	0.0122	0.0122	0.122	0.0191	0.0178	0.0260	0.0552
Methoxychlor	2.92	3.0	30	4.57	4.25	6.24	13.2
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	21691	20173	29653	62737
Methyl *tert*-butyl ether [MTBE]	15	10482	104820	23.5	21.8	32.0	67.8
Nickel	332	1140	11400	1141	1062	1560	3301
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	15645	14549	21387	45248
Nitrobenzene	45.7	1873	18730	71.5	66.5	97.7	206
N-Nitrosodiethylamine	0.0037	2.1	21	0.00579	0.00538	0.00791	0.0167
N-Nitroso-di-*n*-Butylamine	0.119	4.2	42	0.186	0.173	0.254	0.538
Pentachlorobenzene	0.348	0.355	3.55	0.544	0.506	0.744	1.57
Pentachlorophenol	0.22	0.29	2.9	0.344	0.320	0.470	0.995
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.00100	0.000931	0.00136	0.00289
Pyridine	23	947	9470	36.0	33.5	49.1	104
Selenium	50	N/A	N/A	78.2	72.7	106	226
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	0.360	0.335	0.491	1.04
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	2.57	2.39	3.50	7.42
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	7.82	7.27	10.6	22.6
Thallium	0.12	0.23	2.3	0.188	0.175	0.256	0.542
Toluene	1000	N/A	N/A	1564	1455	2138	4524
Toxaphene	0.011	0.011	0.11	0.0172	0.0160	0.0235	0.0497
2,4,5-TP [Silvex]	50	369	3690	78.2	72.7	106	226
1,1,1-Trichloroethane	200	784354	7843540	313	291	427	904
1,1,2-Trichloroethane	5	166	1660	7.82	7.27	10.6	22.6
Trichloroethylene [Trichloroethene]	5	71.9	719	7.82	7.27	10.6	22.6
2,4,5-Trichlorophenol	1039	1867	18670	1625	1512	2222	4701
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	125	116	171	361
Vinyl Chloride	0.23	16.5	165	0.360	0.335	0.491	1.04

CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

Aquatic Life	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Aldrin	1.93	2.34
Aluminum	638	774
Arsenic	299	363
Cadmium	0.627	0.761
Carbaryl	1.28	1.56
Chlordane	0.00433	0.00526
Chlorpyrifos	0.0444	0.0539
Chromium (trivalent)	205	249
Chromium (hexavalent)	10.1	12.2
Copper	12.3	14.9
Cyanide (free)	11.6	14.0
4,4'-DDT	0.00108	0.00131
Demeton	0.108	0.131
Diazinon	0.109	0.132
Dicofol [Kelthane]	21.4	26.0
Dieldrin	0.00216	0.00263
Diuron	75.8	92.1
Endosulfan I (*alpha*)	0.0607	0.0737
Endosulfan II (*beta*)	0.0607	0.0737
Endosulfan sulfate	0.0607	0.0737

Endrin	0.00216	0.00263
Guthion [Azinphos Methyl]	0.0108	0.0131
Heptachlor	0.00433	0.00526
Hexachlorocyclohexane (*gamma*) [Lindane]	0.0867	0.105
Lead	6.11	7.42
Malathion	0.0108	0.0131
Mercury	1.40	1.71
Methoxychlor	0.0325	0.0394
Mirex	0.00108	0.00131
Nickel	64.2	78.0
Nonylphenol	7.15	8.68
Parathion (ethyl)	0.0140	0.0171
Pentachlorophenol	4.59	5.57
Phenanthrene	19.3	23.4
Polychlorinated Biphenyls [PCBs]	0.0151	0.0184
Selenium	5.42	6.58
Silver	6.66	8.08
Toxaphene	0.000216	0.000263
Tributyltin [TBT]	0.0260	0.0315
2,4,5 Trichlorophenol	69.3	84.2
Zinc	130	158

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	1.49	1.81
Aldrin	0.0000171	0.0000208
Anthracene	1660	2016
Antimony	8.98	10.9
Arsenic	27.5	33.4
Barium	2994	3635
Benzene	7.48	9.08
Benzidine	0.00224	0.00272
Benzo(*a*)anthracene	0.0359	0.0436
Benzo(*a*)pyrene	0.00374	0.00454
Bis(chloromethyl)ether	0.00359	0.00436
Bis(2-chloroethyl)ether	0.898	1.09
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	8.98	10.9
Bromodichloromethane [Dichlorobromomethane]	15.2	18.5
Bromoform [Tribromomethane]	100	121
Cadmium	30.2	36.7
Carbon Tetrachloride	6.73	8.18
Chlordane	0.00374	0.00454
Chlorobenzene	149	181
Chlorodibromomethane [Dibromochloromethane]	11.2	13.6
Chloroform [Trichloromethane]	104	127
Chromium (hexavalent)	92.8	112
Chrysene	3.66	4.45
Cresols [Methylphenols]	1558	1892
Cyanide (free)	299	363
4,4'-DDD	0.00299	0.00363
4,4'-DDE	0.000194	0.000236
4,4'-DDT	0.000598	0.000727
2,4'-D	104	127

Danitol [Fenpropathrin]	392	476
1,2-Dibromoethane [Ethylene Dibromide]	0.254	0.309
m-Dichlorobenzene [1,3-Dichlorobenzene]	482	585
o-Dichlorobenzene [1,2-Dichlorobenzene]	898	1090
p-Dichlorobenzene [1,4-Dichlorobenzene]	112	136
3,3'-Dichlorobenzidine	1.18	1.43
1,2-Dichloroethane	7.48	9.08
1,1-Dichloroethylene [1,1-Dichloroethene]	10.4	12.7
Dichloromethane [Methylene Chloride]	7.48	9.08
1,2-Dichloropropane	7.48	9.08
1,3-Dichloropropene [1,3-Dichloropropylene]	4.19	5.09
Dicofol [Kelthane]	0.449	0.545
Dieldrin	0.0000299	0.0000363
2,4-Dimethylphenol	664	807
Di-*n*-Butyl Phthalate	133	161
Dioxins/Furans [TCDD Equivalents]	1.16E-07	1.41E-07
Endrin	0.0299	0.0363
Epichlorohydrin	80.0	97.2
Ethylbenzene	1047	1272
Ethylene Glycol	69982	84978
Fluoride	5988	7271
Heptachlor	0.000119	0.000145
Heptachlor Epoxide	0.000434	0.000527
Hexachlorobenzene	0.00101	0.00123
Hexachlorobutadiene	0.314	0.381
Hexachlorocyclohexane (*alpha*)	0.0116	0.0141
Hexachlorocyclohexane (*beta*)	0.224	0.272
Hexachlorocyclohexane (*gamma*) [Lindane]	0.299	0.363
Hexachlorocyclopentadiene	16.0	19.4
Hexachloroethane	2.75	3.34
Hexachlorophene	3.06	3.72
4,4'-Isopropylidenediphenol	1634	1985
Lead	9.07	11.0
Mercury	0.0182	0.0221
Methoxychlor	4.37	5.30
Methyl Ethyl Ketone	20757	25205
Methyl *tert*-butyl ether [MTBE]	22.4	27.2
Nickel	1092	1326
Nitrate-Nitrogen (as Total Nitrogen)	14971	18179
Nitrobenzene	68.4	83.0
N-Nitrosodiethylamine	0.00553	0.00672
N-Nitroso-di-*n*-Butylamine	0.178	0.216
Pentachlorobenzene	0.521	0.632
Pentachlorophenol	0.329	0.399
Polychlorinated Biphenyls [PCBs]	0.000958	0.00116
Pyridine	34.4	41.8
Selenium	74.8	90.8
1,2,4,5-Tetrachlorobenzene	0.344	0.418
1,1,2,2-Tetrachloroethane	2.45	2.98
Tetrachloroethylene [Tetrachloroethylene]	7.48	9.08
Thallium	0.179	0.218
Toluene	1497	1817
Toxaphene	0.0164	0.0199
2,4,5-TP [Silvex]	74.8	90.8
1,1,1-Trichloroethane	299	363

1,1,2-Trichloroethane	7.48	9.08
Trichloroethylene [Trichloroethene]	7.48	9.08
2,4,5-Trichlorophenol	1555	1888
TTHM [Sum of Total Trihalomethanes]	119	145
Vinyl Chloride	0.344	0.418