

# 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)
  - Enalish
  - Alternative Language (Spanish)
- 4. Application materials \*
- 5. Draft permit \*
- 6. Technical summary or fact sheet \*
- \* **NOTE:** This application was declared Administratively Complete before June 1, 2024. The application materials, draft permit, and technical summary or fact sheet are available for review at the Public Viewing Location provided in the NAPD.



# 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 \*\*
- \*\* **NOTA:** Esta solicitud se declaró administrativamente completa antes del 1 de junio de 2024. Los materiales de la solicitud, el proyecto de permiso, y los resumen técnico u hoja de datos están disponibles para revisión en la ubicación de consulta pública que se indica en el NAPD.

# Section 15. Plain Language Summary (Instructions Page 40)

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

# ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

# DOMESTIC WASTEWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application. City of Denton (CN 600358980) proposes to operate Clear Creek Water Reclamation Plant (RN103935516). a membrane bioreactor process plant scheme. The facility will be located approximately 9,200 ft east of Farm-to-Market Road 428 and 1,800 ft northwest of Hartlee Field, in Denton, Denton County, Texas 76208.

Major amendment application to discharge 10 MGD design flow of treated domestic water.

Discharges from the facility are expected to contain five-day biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), ammonia nitrogen (NH<sub>3</sub>-H), phosphorus (P), and dissolved oxygen (DO). Domestic wastewater will be treated by a membrane bioreactor process plant and the treatment units will include bar screens, grit chambers, primary clarifiers, anaerobic basins, anoxic basins, aerobic submerged membrane unit basins, anaerobic digesters, and ultraviolet (UV) disinfection.

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

# **AGUAS RESIDUALES** DOMESTICAS /**AGUAS PLUVIALES**

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

La Ciudad de Denton, Texas (CN600358980) propone operar Clear Creek Water Reclamation plant RN103935516, un bioreactor de membranas. La instalación estará ubicada en aproximadamente 9,200 pies al este de la calle Farm-to-Market 428 y a 1,800 pies noroeste de la calle Harlee Field, en la ciudad de Denton, Texas, Condado de Denton, Texas 76208. Esta es la aplicación para una enmienda mayor para descargar 10 millones de galones de agua domestica tratada al dia .

Se espera que las descargas de la instalación contengan demandas bioquimicas de oxigeno de 5 dias (DBO), solidos suspendidos totales, nitrogeno ammoniacal, fosforo y oxigeno disuelto. Aguas residuales domesticas. estará tratado por un bioreactor de membranas que incluira rejas de limpieza, desarenadores, clarificadores, cuencas anaerobicas, cuencas anoxicas, y cuencas aerobicas, membranas submergidas, digestores anaerobico y desinfeccion ultravioleta.

# **TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**



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

# PERMIT NO. WQ0014416001

APPLICATION. City of Denton, 1100 South Mayhill Road, Denton, Texas 76208, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014416001 (EPA I.D. No. TX0125628) to authorize an increase in the discharge of treated domestic wastewater to a volume not to exceed an annual average flow of 10,000,000 gallons per day. The domestic wastewater facility is located approximately 12,210 feet east of the intersection of East Sherman Drive and Hartlee Field Road, in the city of Denton, in Denton County, Texas 76208. The discharge route is from the plant site to a series of ponds; thence to Clear Creek; thence to Lewisville Lake. TCEQ received this application on May 1, 2024. The permit application will be available for viewing and copying at Pecan Creek Water Reclamation Plant, Administration Building, 1100 South Mayhill Road, Denton, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.065833.33.28&level=18

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

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 countywide 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 <a href="https://www.tceq.texas.gov/goto/cid">www.tceq.texas.gov/goto/cid</a>. 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 <a href="https://www14.tceq.texas.gov/epic/eComment/">https://www14.tceq.texas.gov/epic/eComment/</a>, 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 <a href="www.tceq.texas.gov/goto/pep">www.tceq.texas.gov/goto/pep</a>. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Denton at the address stated above or by calling Mr. Andrew Kanewske, P.E., Professional Engineer, at 817-349-2829.

Issuance Date: June 5, 2024

# 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. WQ0014416001**

SOLICITUD. La ciudad de Denton, 1100 South Mayhill Road, Denton, Texas 76208 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0014416001 (EPA I.D. No. TX0125628) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) Autorizar un aumento en la descarga de aguas residuales domésticas tratadas a un volumen que no exceda un flujo promedio anual de 10,000,000 de galones por día. La instalación de aguas residuales domésticas está ubicada aproximadamente a 12,210 pies al este de la intersección de East Sherman Drive y Hartlee Field Road, en la ciudad de Denton, en el condado de Denton, Texas 76208. La ruta de descarga es desde el sitio de la planta hasta una serie de estanques, de allí a Clear Creek, de allí al lago Lewisville. La TCEQ recibió esta solicitud el 1 de mayo del 2024. La solicitud para el permiso estará disponible para leerla y copiarla en la planta de aguas tratadas de Pecan Creek dentro del edificio de administración en la calle 1100 South Mayhill en Denton, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.065833,33.28&level=18

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

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

**OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.** Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos

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

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

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

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

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía

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

También se puede obtener información adicional de la ciudad de Denton, Texas a la dirección indicada arriba o llamando al Sr. Andrew Kanewske, P.E., Ingeniero Profesional, al 817-349-2829.

Fecha de emisión 5 de junio de 2024

# **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. WQ0014416001**

**APPLICATION AND PRELIMINARY DECISION.** City of Denton, 1100 South Mayhill Road, Denton, Texas 76208, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014416001 to authorize an increase in the discharge of treated domestic wastewater from a daily average flow not to exceed 950,000 gallons per day to an annual average flow not to exceed 10,000,000 gallons per day. TCEQ received this application on May 1, 2024.

This combined notice is being issued because the facility's location address and the link to an electronic map of the site or the facility's general location were incorrect in the original NORI.

The facility will be located **approximately 0.5 mile north of the intersection of Collins** Road and Hartlee Field Road, in the City of Denton, Denton County, Texas 76208. The treated effluent will be discharged to a series of ponds, thence to Clear Creek, thence to Lewisville Lake in Segment No. 0823 of the Trinity River Basin. The unclassified receiving water uses are minimal aquatic life use for the ponds and high aquatic life use for Clear Creek. The designated uses for Segment No. 0823 are primary contact recreation, public water supply, and high aquatic life use. In accordance with 30 Texas Administrative Code §307.5 and the TCEQ's Procedures to Implement the Texas Surface Water Quality Standards (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Clear Creek and Lewisville Lake, which have been identified as high aquatic life uses. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received. 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=-97.06551,33.270909&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 Pecan Creek Water Reclamation Plant, Administration Building, 1100 South Mayhill Road, Denton, 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 <a href="https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices">https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices</a>.

**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 <a href="https://www.tceq.texas.gov/goto/comment">www.tceq.texas.gov/goto/comment</a> 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 <a href="https://www.tceq.texas.gov/goto/cid">www.tceq.texas.gov/goto/cid</a>. 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 <a href="www.tceq.texas.gov/goto/comment">www.tceq.texas.gov/goto/comment</a>, 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 <a href="www.tceq.texas.gov/goto/pep">www.tceq.texas.gov/goto/pep</a>. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Denton at the address stated above or by calling Mr. Andrew Kanewske, P.E., at 817-349-2829.

Issuance Date: June 24, 2025

# Comisión De Calidad Ambiental Del Estado De Texas



AVISO COMBINADO DEL RECIBO DE LA SOLICITUD Y EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA Y DE LA SOLICITUD Y DECISIÓN PRELIMINAR PARA EL PERMISO DEL SISTEMA DE ELIMINACIÓN DE DESCARGAS DE CONTAMINANTES DE TEXAS (TPDES) PARA AGUAS RESIDUALES MUNICIPALES

# MODIFICACIÓN

# **PERMISO NO. WQ0014416001**

**SOLICITUD Y DECISIÓN PRELIMINAR.** City of Denton, 1100 South Mayhill Road, Denton, Texas 76208, ha mandado solicitud a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para una modificación principal autorizando la descarga de aguas residuales domésticas tratadas a un promedio de flujo diario que no exceda ni 950,000 galones por día ni un flujo anual 10,000,000 galones por ano. La TCEQ ha recibido esta solicitud el 1 de Mayo del 2024.

Este aviso combinado se emite a causa de un error en la dirección de la planta y un error en el enlace para la versión electrónica del mapa de la planta o por causa de un error en la ubicación general en la solicitud original NORI.

La planta estará ubicada aproximadamente o.5 millas al norte de la intersección de las calles Collins Road y Hartlee Field Road, en la ciudad de Denton, Condado Denton, Texas 76208. El agua tratada será descargada hacia una serie de estanques, luego hacia el arroyo Clear Creek, luego hacia el Lago Lewisville Lake en el Segmento No. 0823 de la Cuenca Trinity River Basin. Los usos de conocimiento público para el agua descargada son para la vida acuática mínima en los estanques y gran cantidad de vida acuática en el arroyo Clear Creek. Los usos designados para el Segmento No. 0823 son el recreo de contacto primario, suministro público de agua, y el uso para una gran cantidad de vida acuática. De acuerdo con 30 Código Administrativo de Texas §307.5 y Procedimientos Para Ejecutar los Estándares de Aguas Superficiales de Texas (Junio del 2010), una evaluación antidegradación fue realizada en las aguas descargadas. Una evaluación antidegradación al primer nivel ha determinado preliminarmente que los usos de la calidad del agua actuales no serán perjudicados por la acción de este permiso. Criterios protegiendo los usos actuales de las aguas descargadas numéricos y narrativos serán preservados. Una evaluación antidegradación al segundo nivel ha determinado preliminarmente que una degradación significante en la calidad del agua es improbable en el arroyo Clear Creek y el lago Lewisville Lake, cuáles han sido designadas como usos de gran cantidad de vida acuática. Usos actuales de las aguas descargadas serán preservados y protegidos. La determinación preliminar puede ser reexaminada y podrá ser modificada si se recibe nueva información. 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://tceq.maps.arcgis.com/apps/webappviewer/index.html?id=db5bac44afbc468bbddd36of8168250f&marker=-97.262222%2C33.234722&level=12

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 la planta de tratamiento Pecan Creek Water Reclamation Plant, Administration Building, 1100 South Mayhill Road, Denton, Texas. La solicitud (incluso cualquier actualización o aviso) está disponible electrónicamente en la siguiente página web: <a href="https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications">https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications</a>.

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

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, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, TX 78711-3087 o electrónicamente a <a href="https://www.tceq.texas.gov/goto/comment">www.tceq.texas.gov/goto/comment</a> dentro de los 30 días a partir de la fecha de publicación de este aviso en el periódico.

**INFORMACION DISPONIBLE ONLINE.** Para detalles sobre el progreso de la solicitud, visita el Commissioners' Integrated Database al <a href="www.tceq.texas.gov/goto/cid">www.tceq.texas.gov/goto/cid</a>. Para encontrar la solicitud dentro del sitio de web, ingrese el numero del permiso para esta solicitud, que se provee al principio de este aviso.

**CONTACTOS E INFORMACIÓN DE LA AGENCIA.** Los comentarios y solicitudes públicas deben enviarse electrónicamente a <a href="www.tceq.texas.gov/goto/comment">www.tceq.texas.gov/goto/comment</a>, 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 <a href="https://www.tceq.texas.gov/goto/pep">www.tceq.texas.gov/goto/pep</a>. Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional en La Ciudad de Denton en la dirección indicada anteriormente o llamando a Mr. Andrew Kanewske, P.E, al 817-349-2829.

Fecha de emisión: 24 de junio de 2025



TPDES PERMIT NO. WQ0014416001 [For TCEQ office use only - EPA I.D. No. TX0125628]

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY P.O. Box 13087 Austin, Texas 78711-3087

This major amendment with renewal supersedes and replaces TPDES Permit No. WQ0014416001 issued on April 5, 2022.

# PERMIT TO DISCHARGE WASTES

under provisions of Section 402 of the Clean Water Act and Chapter 26 of the Texas Water Code

City of Denton

whose mailing address is

1100 South Mayhill Road Denton, Texas 76208

is authorized to treat and discharge wastes from the Clear Creek Water Reclamation Plant, SIC Code 4952

located approximately 0.5 mile north of the intersection of Collins Road and Hartlee Field Road, in the City of Denton, Denton County, Texas 76208

to a series of ponds, thence to Clear Creek, thence to Lewisville Lake (Attachment A) in Segment No. 0823 of the Trinity 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, **five years from the date of issuance**.

| ISSUED DATE: |                    |
|--------------|--------------------|
|              | For the Commission |

# INTERIM I 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 5.0 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 2.5 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 6,944 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<br>Frequency          | Sample Type             |
| Flow, MGD  | Report                | N/A       | Report    | N/A         | Continuous                        | <b>Totalizing Meter</b> |
| Carbonaceous Biochemical<br>Oxygen Demand (5-day)                        | 5 (104)               | 10        | 20        | 30          | Two/week                          | Composite               |
| <b>Total Suspended Solids</b>  | 5 (104)               | 10        | 20        | 30          | Two/week                          | Composite               |
| Ammonia Nitrogen   | 1 (21)                | 3         | 6         | 10          | Two/week                          | Composite               |
| Total Phosphorus   | 0.5 (10)              | 1         | 2         | 3           | Two/week                          | Composite               |
| <i>E. coli</i> , colony-forming units or most probable number per 100 ml | 126                   | N/A       | 399       | N/A         | Daily                             | Grab                    |

- 2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
- 3. The pH shall not be less than 6.0 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 5.0 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.

# INTERIM II EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the completion of expansion to the 5.0 million gallons per day (MGD) and lasting through the completion of expansion to the 10.0 MGD facility, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 5.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 13,888 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<br>Frequency          | Sample Type             |
| Flow, MGD  | Report         | N/A                             | Report | N/A                            | Continuous                        | <b>Totalizing Meter</b> |
| Carbonaceous Biochemical<br>Oxygen Demand (5-day)                        | 5 (209)        | 10                              | 20     | 30                             | Two/week                          | Composite               |
| <b>Total Suspended Solids</b>  | 5 (209)        | 10                              | 20     | 30                             | Two/week                          | Composite               |
| Ammonia Nitrogen   | 1 (42)         | 3                               | 6      | 10                             | Two/week                          | Composite               |
| Total Phosphorus   | 0.5 (21)       | 1                               | 2      | 3                              | Two/week                          | Composite               |
| <i>E. coli</i> , colony-forming units or most probable number per 100 ml | 126            | N/A                             | 399    | N/A                            | Daily                             | Grab                    |

- 2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
- 3. The pH shall not be less than 6.0 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 5.0 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.

# FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the completion of expansion to the 10.0 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 10 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 27,776 gallons per minute.

| Effluent Characteristic  | Discharge Limitations       |                   |                   | Min. Self-Monitoring Requirements |  |                                  |
|--|-----------------------------|-------------------|-------------------|-----------------------------------|--|----------------------------------|
|  | Daily Avg<br>mg/l (lbs/day) | 7-day Avg<br>mg/l | Daily Max<br>mg/l | Single Grab<br>mg/l               | Report Daily<br>Measurement<br>Frequency | Avg. & Daily Max.<br>Sample Type |
| Flow, MGD  | Report                      | N/A               | Report            | N/A                               | Continuous                               | Totalizing Meter                 |
| Carbonaceous Biochemical<br>Oxygen Demand (5-day)                        | 5 (417)                     | 10                | 20                | 30                                | One/day                                  | Composite                        |
| Total Suspended Solids   | 5 (417)                     | 10                | 20                | 30                                | One/day                                  | Composite                        |
| Ammonia Nitrogen   | 1 (83)                      | 3                 | 6                 | 10                                | One/day                                  | Composite                        |
| Total Phosphorus   | 0.5 (83)                    | 1                 | 2                 | 3                                 | One/day                                  | Composite                        |
| <i>E. coli</i> , colony-forming units or most probable number per 100 ml | 126                         | N/A               | 399               | N/A                               | Daily                                    | Grab                             |

- 2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
- 3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day 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 5.0 mg/l and shall be monitored once per day by grab sample.
- 7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

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# **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  $\mu$ g/L);
  - ii. Two hundred micrograms per liter (200  $\mu$ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500  $\mu$ g/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  $\mu$ g/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 Municipal Permits Team, Wastewater Permitting 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 Municipal Permits Team, Wastewater Permitting 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 authorizes Distribution and Marketing of Class A or AB biosolids. This provision does not authorize the permittee to land apply Class B 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 4) 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 30<sup>th</sup> 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 4) 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

| <u>Pollutant</u> | <u>Ceiling Concentration</u><br>( <u>Milligrams per kilogram</u> )* |
|------------------|---|
| Arsenic          | 75  |
| Cadmium          | 85  |
| Chromium         | 3000  |
| Copper           | 4300  |
| Lead             | 840   |
| Mercury          | 57  |
| Molybdenum       | 75  |
| Nickel           | 420   |
| PCBs             | 49  |
| Selenium         | 100   |
| Zinc             | 7500  |
|                  |   |

<sup>\*</sup> 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:

<u>Alternative 1</u> - 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)(2)(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:

<u>Alternative 2</u> - 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

<u>Alternative 3</u> - 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  $\S$  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  $\S$  312.82(a)(2)(C)(iv-vi) for specific information; or

<u>Alternative 4</u> - 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).

<u>Alternative 2</u> - 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.

<u>Alternative 3</u> - 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.

- <u>Alternative 1</u> 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 - annually (TCLP) Test
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

o 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

|                  | Cumulative Pollutant Loading<br>Rate |
|------------------|--------------------------------------|
| <u>Pollutant</u> | (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

| Monthly Average            |
|----------------------------|
| Concentration              |
| (milligrams per kilogram)* |
| 41                         |
| 39                         |
| 1200                       |
| 1500                       |
| 300                        |
| 17                         |
| Report Only                |
| 420                        |
| 36                         |
| 2800                       |
|                            |

<sup>\*</sup>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.
- 2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the biosolids disposal practice.

#### 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 <u>five years</u>. 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 <u>indefinitely</u>. 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 30<sup>th</sup> of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permitee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 4) 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. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge or biosolids disposal practice.
- D. 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 4) 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 4) and the Enforcement Division (MC 224), by September 30 of each year.

- E. Sewage sludge or biosolids shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.
- F. 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.

#### G. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30<sup>th</sup> of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permitee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 4) 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 30<sup>th</sup> of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permitee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 4) 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. There is no human health criteria for ponds. Acute toxic criteria apply at the point of discharge.
- 4. 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, the permittee shall comply with the requirements of 30 TAC § 309.13(e).
- 5. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.
- 6. 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 Wastewater Permitting 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, daily may be reduced to 5/week in all three 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 Wastewater Permitting 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.
- 7. Prior to construction of the Interim I, Interim II and the Final phase treatment facilities, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary transmittal letter in accordance with the requirements in 30 TAC § 217.6(d). If requested by the Wastewater Permitting 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 2, 2a and 2b 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.

- 8. Within 120 days from the start-up of the 2.5 MGD facility, the permittee shall complete Attachment B with the analytical results for Outfall 001. The completed tables with the results of these analysis and laboratory reports shall be submitted to the Municipal Permits Team, Wastewater Permitting Section MC 148, TCEQ Water Quality Division. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and/or monitoring requirements. Test methods utilized to complete the tables shall be according to the test procedures specified in the Definitions and Standard Permit Conditions section of this permit and sensitive enough to detect the parameters listed in Attachment B at the minimum analytical level (MAL).
- 9. Reporting requirements according to 30 TAC §§ 319.1-319.11 and any additional effluent reporting requirements contained in this permit are suspended from the effective date of the permit until plant startup or discharge from the facility described by this permit, whichever occurs first. The permittee shall provide written notice to the TCEQ Regional Office (MC Region 4) and the Applications Review and Processing Team (MC 148) of the Water Quality Division in writing at least forty-five days prior to plant startup or anticipated discharge, whichever occurs first, and prior to completion of each additional phase on Notification of Completion Form 20007.
- 10. The 2.5 MGD and 5.0 MGD phases of the permit shall only be authorized for discharge with the inclusion of ponds in its discharge route prior to entering Clear Creek. These ponds shall have a water surface area of 10 acres (Pond 1) and 5 acres (Pond 2) and shall be maintained at an average water depth of 5 feet at the water surface level. The 10 MGD phase of the permit shall only be authorized for discharge with the inclusion of an additional third pond in its discharge route prior to entering Clear Creek. Pond 3 shall have a water surface area of 15 acres and shall be maintained at an average water depth of 5 feet at the water surface level.

#### CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The permittee shall operate an industrial pretreatment program in accordance with Sections 402(b)(8) and (9) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403), and the approved **City of Denton** publicly owned treatment works (POTW) pretreatment program submitted by the permittee. The pretreatment program was approved on **March 16**, 1984, and modified on **September 24**, 1993, **August 31**, 2005, **June 28**, 2013, and April 5, 2022 (Streamlining Rule).

The POTW pretreatment program is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

- a. Industrial user (IU) information shall be kept current according to 40 CFR §§403.8(f)(2)(i) and (ii) and updated at a frequency set forth in the approved pretreatment program to reflect the accurate characterization of all IUs.
- b. The frequency and nature of IU compliance monitoring activities by the permittee shall be consistent with the approved POTW pretreatment program and commensurate with the character, consistency, and volume of waste. The permittee is required to inspect and sample the effluent from each significant industrial user (SIU) at least once per year, except as specified in 40 CFR §403.8(f)(2)(v). This is in addition to any industrial self-monitoring activities.
- c. The permittee shall enforce and obtain remedies for IU noncompliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program.
- d. The permittee shall control through permit, order, or similar means, the contribution to the POTW by each IU to ensure compliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program. In the case of SIUs (identified as significant under 40 CFR §403.3(v)), this control shall be achieved through individual permits or general control mechanisms, in accordance with 40 CFR §403.8(f)(1)(iii).

Both individual and general control mechanisms must be enforceable and contain, at a minimum, the following conditions:

- (1) Statement of duration (in no case more than five years);
- (2) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
- (3) Effluent limits, which may include enforceable best management practices (BMPs), based on applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;
- (4) Self-monitoring, sampling, reporting, notification and record keeping requirements, identification of the pollutants to be monitored (including, if applicable, the process for seeking a waiver for a pollutant neither present nor expected to be present in the IU's discharge in accordance with 40 CFR §403.12(e)(2), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR Part 403, categorical pretreatment standards, local limits, and State and local law;

- (5) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and
- (6) Requirements to control slug discharges, if determined by the POTW to be necessary.
- e. For those IUs who are covered by a general control mechanism, in order to implement 40 CFR §403.8(f)(1)(iii)(A)(2), a monitoring waiver for a pollutant neither present nor expected to be present in the IU's discharge is not effective in the general control mechanism until after the POTW has provided written notice to the SIU that such a waiver request has been granted in accordance with 40 CFR §403.12(e)(2).
- f. The permittee shall evaluate whether each SIU needs a plan or other action to control slug discharges, in accordance with 40 CFR §403.8(f)(2)(vi). If the POTW decides that a slug control plan is needed, the plan shall contain at least the minimum elements required in 40 CFR §403.8(f)(2)(vi).
- g. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program.
- h. The approved program shall not be modified by the permittee without the prior approval of the Executive Director, according to 40 CFR §403.18.
- 2. The permittee is under a continuing duty to establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, develop and enforce local limits as necessary, and modify the approved pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee may develop BMPs to implement 40 CFR §403.5(c)(1) and (2). Such BMPs shall be considered local limits and pretreatment standards. The permittee is required to effectively enforce such limits and to modify its pretreatment program, including the Legal Authority, Enforcement Response Plan, and Standard Operating Procedures (including forms), if required by the Executive Director to reflect changing conditions at the POTW. Substantial modifications will be approved in accordance with 40 CFR §403.18, and modifications will become effective upon approval by the Executive Director in accordance with 40 CFR §403.18.

Upon approval by the Executive Director of a substantial modification to this approved POTW pretreatment program, the requirement to develop and enforce specific prohibitions and/or limits to implement the prohibitions and limits set forth in 40 CFR §\$403.5 (a)(1), (b), (c)(1) and (3), and (d) is a condition of this permit. The specific prohibitions set out in 40 CFR §403.5(b) shall be enforced by the permittee unless modified under this provision.

3. The permittee shall prepare annually a list of IUs, which during the preceding twelve (12) months were in significant noncompliance (SNC) with applicable pretreatment requirements. For the purposes of this section of the permit, "CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS," SNC shall be determined based upon the more stringent of either criteria established at 40 CFR §403.8(f)(2)(viii) [rev. 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually during the month of **March** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

In addition, each **March** the permittee shall submit an updated pretreatment program annual status report, in accordance with 40 CFR §§403.12(i) [rev. 10/22/15] and (m), to the TCEQ Pretreatment Team (MC148) of the Water Quality Division. The report summary shall be submitted on the Pretreatment Performance Summary (PPS) form [TCEQ-20218]. The report shall contain the following information as well as the information on the tables in this section:

- a. An updated list of all regulated IUs as indicated in this section. For each listed IU, the following information shall be included:
  - (1) Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) code *and* categorical determination.
  - (2) If the pretreatment program has been modified and approved to incorporate reduced monitoring for any of the categorical IUs as provided by 40 CFR Part 403 [rev. 10/14/05], then the list must also identify:
    - categorical IUs subject to the conditions for reduced monitoring and reporting requirements under 40 CFR § 403.12(e)(1) [rev. 10/22/15] and (3);
    - those IUs that are non-significant categorical industrial users (NSCIUs) under 40 CFR §403.3(v)(2); and
    - those IUs that are middle tier categorical industrial users (MTCIUs) under 40 CFR §403.12(e)(3).
  - (3) Control mechanism status.
    - Indicate whether the IU has an effective individual or general control mechanism, and the date such control mechanism was last issued, reissued, or modified;
    - Indicate which IUs were added to the system, or newly identified, during the pretreatment year reporting period;
    - Include the type of general control mechanisms; and
    - Report all NSCIU annual evaluations performed, as applicable.
  - (4) A summary of all compliance monitoring activities performed by the POTW during the pretreatment year reporting period. The following information shall be reported:
    - Total number of inspections performed; and
    - Total number of sampling events conducted.
  - (5) Status of IU compliance with effluent limitations, reporting, and narrative standard (which may include enforceable BMPs, narrative limits, and/or operational standards) requirements. Compliance status shall be defined as follows:

- Compliant (C) no violations during the pretreatment year reporting period;
- Non-compliant (NC) one or more violations during the pretreatment year reporting period but does not meet the criteria for SNC; and
- Significant Noncompliance (SNC) in accordance with requirements described above in this section.
- (6) For noncompliant IUs, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.), and the current compliance status. If any IU was on a schedule to attain compliance with effluent limits or narrative standards, indicate the date the schedule was issued and the date compliance is to be attained.
- b. A list of each IU whose authorization to discharge was terminated or revoked during the pretreatment year reporting period and the reason for termination.
- c. A report on any interference, pass through, upset, or POTW permit violations known or suspected to be caused by IUs and response actions taken by the permittee
- d. An original newspaper public notice, or copy of the newspaper publication with official affidavit, of the list of significantly noncompliant IUs, giving the name of the newspaper and the date the list was published.
- e. The information required by this section including the information on the attached tables must be submitted. The permittee may submit the information in tabular form using the example table format provided. Please attach on a separate sheet those explanations to document various pretreatment activities, including IU permits that have expired, BMP violations, and required sampling events not conducted by the permittee as required.
- f. A summary of changes to the POTW's pretreatment program that have not been previously reported to the Approval Authority.

Effective December 21, 2025, the permittee must submit the updated pretreatment program annual status report required by this section electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. [rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].

- 4. The permittee shall provide adequate written notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days of the permittee's knowledge of the following:
  - a. Any new introduction of pollutants into the treatment works from an indirect discharger that would be subject to Sections 301 and 306 of the Clean Water Act, if the indirect discharger was 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.

Adequate 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 March 2022

#### **TPDES Pretreatment Program Annual Report Form for Updated Industrial Users List**

| Reporting month/yea | ar:,       | to,              |  |
|---------------------|------------|------------------|--|
| TPDES Permit No.:   | Permittee: | Treatment Plant: |  |

| PRET            | REATM             | ENT I                | PRO                   | GRAI          | M STA                    | ATUS R                              | EPC                      | RT U                   | U <b>PD</b> . | ATE          | ED I   | NDUS  | TRIA                             | L USE                   | RS¹ L           | IST                    |
|-----------------|-------------------|----------------------|-----------------------|---------------|--------------------------|-------------------------------------|--------------------------|------------------------|---------------|--------------|--------|---|----------------------------------|-------------------------|-----------------|------------------------|
| е               |                   | CONTROL<br>MECHANISM |                       |               |                          |                                     | he CA                    | the CA                 | Du<br>Re      | ring<br>port | the Pr | E STAT<br>etreatn<br>riod <sup>4</sup><br>nt, NC :<br>cant No | nent Ye                          |                         | ant,            |                        |
| r Name          | Code              |                      |                       | or NR         |                          |                                     | or N)                    | ed by t                | by            | RE           | POI    | RTS   |                                  |                         | 3               |                        |
| Industrial User | SIC or NAICS Code | $ m CIU^2$           | $ m Y/N$ or $ m NR^5$ | IND or GEN or | Last Action <sup>6</sup> | TBLLs or<br>TBLLs only <sup>7</sup> | New User <sup>3</sup> (Y | Times Inspected by the | Times Sampled | BMR          | 90-Day | Semi-<br>Annual   | Self-<br>Monitoring <sup>8</sup> | NSCIU<br>Certifications | Effluent Limits | Narrative<br>Standards |
|                 |                   |                      |                       |               |                          |                                     |                          |                        |               |              |        |   |                                  |                         |                 |                        |
|                 |                   |                      |                       |               |                          |                                     |                          |                        |               |              |        |   |                                  |                         |                 |                        |
|                 |                   |                      |                       |               |                          |                                     |                          |                        |               |              |        |   |                                  |                         |                 |                        |

- Include all significant industrial users (SIUs), non-significant categorical industrial users (NSCIUs) as defined in 40 CFR §403.3(v)(2), and/or middle tier categorical industrial users (MTCIUs) as defined in 40 CFR §403.12(e)(3). Please do <u>not</u> include non-significant noncategorical IUs that are covered under best management practices (BMPs) or general control mechanisms.
- 2 Categorical determination (include 40 CFR citation and NSCIU or MTCIU status, if applicable).
- 3 Indicate whether the IU is a new user. If the answer is No or N, then indicate the expiration date of the last issued IU permit.
- 4 The term SNC applies to a broader range of violations, such as daily maximum, long-term average, instantaneous limits, and narrative standards (which may include enforceable BMPs, narrative limits and/or operational standards). Any other violation, or group of violations, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment Program now includes BMP violations (40 CFR §403.8(f)(2)(viii)(H)).
- 5 Code NR= None required (NSCIUs only); IND = individual control mechanism; GEN = general control mechanism. Include as a footnote (or on a separate page) the name of the general control mechanism used for similar groups of IUs, identify the similar types of operations and types of wastes that are the same for each general control mechanism. Any BMPs through general control mechanisms that are applied to nonsignificant IUs need to be reported separately, *e.g.* the sector type and BMP description.
- 6 Permit or NSCIU evaluations as applicable.
- According to 40 CFR §403.12(i)(1), indicate whether the IU is subject to technically based local limits (TBLLs) that are more stringent than categorical pretreatment standards, *e.g.* where there is one end-of-pipe sampling point at a CIU, and you have determined that the TBLLs are more stringent than the categorical pretreatment standards for any pollutant at the end-of-pipe sampling point; **OR** the IU is subject only to local limits (TBLLs only), *e.g.* the IU is a non-categorical SIU subject only to TBLLs at the end-of-pipe sampling point.
- 8 For those IUs where a monitoring waiver has been granted, please add the code "W" (after either C, NC, or SNC codes) and indicate the pollutant(s) for which the waiver has been granted.

TCEQ-20218a

TPDES Pretreatment Program Annual Report Form

Revised July 2007

### TPDES Pretreatment Program Annual Report Form for Industrial User Inventory Modifications

| K                                   | eporting month   | ı/year:                | ,                      | to  |  |
|-------------------------------------|--|------------------------|------------------------|---|--|
| TPDES P                             | ermit No:  | Permitt                | ee: Tre                | eatment Plant:  |  |
| INDUSTRI                            | AL USER INVE   | ENTORY MOI             | DIFICATIONS            |   |  |
| FACILITY<br>NAME,                   | ADD,<br>CHANGE,  | IF<br>DELETION:        | IF ADDITION O          | R SIGNIFICANT   | CHANGE:  |
| ADDRESS<br>AND<br>CONTACT<br>PERSON | (Including categorical reclassification to NSCIU or MTCIU) | Reason For<br>Deletion | PROCESS<br>DESCRIPTION | POLLUTANTS<br>(Including<br>any sampling<br>waiver<br>given for each<br>pollutant<br>not present) | FLOW RATE 9 (In gpd) R = Regulated U = Unregulated T = Total |
|                                     |  |                        |                        |   |  |
|                                     |  |                        |                        |   |  |
|                                     |  |                        |                        |   |  |
|                                     |  |                        |                        |   |  |
|                                     |  |                        |                        |   |  |
|                                     |  |                        |                        |   |  |

9 For NSCIUs, total flow must be given, if regulated flow is not determined.

TCEQ-20218b TPDES Pretreatment Program Annual Report Form Revised July 2007

| Reporting month/year:,to,   |                 |         |                         |                        |              |      |       |          |       |   |            |                |          |  |            |
|---|-----------------|---------|-------------------------|------------------------|--------------|------|-------|----------|-------|---|------------|----------------|----------|--|------------|
| Overall SNC% SNC 10 based on: Effluent Violations<br>Reporting Violations% Narrative Standard Violations_   |                 |         |                         |                        |              |      |       |          |       |   | %          |                |          |  |            |
| Noncomp   | liant           | Ind     | ustria                  | l User                 | <u>s - E</u> | nfor | ·cem  | ent .    | Acti  | ions Ta   | ken        |                |          |  | 1          |
|   | Nat             | ure o   | f Viola                 | tion 11                | Nui<br>Tak   |      | of A  | ction    | S     | d (Do<br>iarge)                                   | Cor<br>Sch | nplia<br>edule | nce<br>e | eturned<br>7 or N)                                 |            |
| Industrial<br>User<br>Name  | Effluent Limits | Reports | NSCIU<br>Certifications | Narrative<br>Standards | NOV          | A.O. | Civil | Criminal | Other | Penalties Collected (Do<br>not Include Surcharge) | Y or N     | Date Issued    | Date Due | Current Status Returned<br>to Compliance: (Y or N) | Comments   |
|   |                 |         |                         |                        |              |      |       |          |       |   |            |                |          |  |            |
|   |                 |         |                         |                        |              |      |       |          |       |   |            |                |          |  |            |
|   |                 |         |                         |                        |              |      |       |          |       |   |            |                |          |  |            |
|   |                 |         |                         |                        |              |      |       |          |       |   |            |                |          |  |            |
|   |                 |         |                         |                        |              |      |       |          |       |   |            |                |          |  |            |
| <ul> <li># %         — Pretreatment Standards [WENDB-PSNC] (Local Limits/Categorical Standards)         — Reporting Requirements [WENDB-PSNC]         — Narrative Standards</li> <li>Please specify a separate number for each type of violation, e.g. report, notification, and/or NSCIU certification.</li> </ul> |                 |         |                         |                        |              |      |       |          |       |   |            |                |          |  |            |
| TCEQ-202186   | с Т             | PDES    | S Pretre                | eatmen                 | t Pro        | gram | ı Ann | ual R    | lepoi | rt Form   |            | Rei            | vised .  | July 200   | 0 <i>7</i> |

**TPDES Pretreatment Program Annual Report Form for Enforcement Actions Taken** 

**Annual Report Table Missing??** 

#### **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. Within 90 days of initial discharge of the 2.5 MGD facility, 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 30%, 40%, 53%, 71%, and 94% effluent. The critical dilution, defined as 94% 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. 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 tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.
  - 2) If one or more of the first four consecutive quarterly 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 that species until this permit is reissued.

#### 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;
  - 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;
  - 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 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 80% 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.
- 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.

- 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

- Dilution water used in the toxicity tests must be the receiving water collected at a point upstream of the discharge point as close as possible to the discharge point but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:
  - a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or
  - b) use the closest downstream perennial water 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); and
  - 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.
- 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 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."

#### 4. <u>Persistent Toxicity</u>

The requirements of this Part apply 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 species 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 for a species.

#### 5. <u>Toxicity Reduction Evaluation</u>

- 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;
  - 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:
  - 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;
  - 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.
- 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.

- 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.
- i. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

#### TABLE 1 (SHEET 1 OF 4)

#### BIOMONITORING REPORTING

#### CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

|                               |               | Date Time         | Date Time                |      |
|-------------------------------|---------------|-------------------|--------------------------|------|
| Dates and Times<br>Composites | No. 1 FROM:   |                   | TO:                      | _    |
| Collected                     | No. 2 FROM: _ |                   | _ TO:                    | _    |
|                               | No. 3 FROM:   |                   | TO:                      | _    |
| Test initiated: _             |               | am/pm             |                          | date |
| Dilution wa                   | ter used:     | _ Receiving water | Synthetic Dilution water | •    |

#### NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

|                  |    | Percent effluent |     |     |     |     |  |  |  |  |  |  |
|------------------|----|------------------|-----|-----|-----|-----|--|--|--|--|--|--|
| REP              | 0% | 30%              | 40% | 53% | 71% | 94% |  |  |  |  |  |  |
| A                |    |                  |     |     |     |     |  |  |  |  |  |  |
| В                |    |                  |     |     |     |     |  |  |  |  |  |  |
| С                |    |                  |     |     |     |     |  |  |  |  |  |  |
| D                |    |                  |     |     |     |     |  |  |  |  |  |  |
| Е                |    |                  |     |     |     |     |  |  |  |  |  |  |
| F                |    |                  |     |     |     |     |  |  |  |  |  |  |
| G                |    |                  |     |     |     |     |  |  |  |  |  |  |
| Н                |    |                  |     |     |     |     |  |  |  |  |  |  |
| I                |    |                  |     |     |     |     |  |  |  |  |  |  |
| J                |    |                  |     |     |     |     |  |  |  |  |  |  |
| Survival<br>Mean |    |                  |     |     |     |     |  |  |  |  |  |  |
| Total<br>Mean    |    |                  |     |     |     |     |  |  |  |  |  |  |
| CV%*             |    |                  |     |     |     |     |  |  |  |  |  |  |
| PMSD             |    |                  |     |     |     |     |  |  |  |  |  |  |

<sup>\*</sup>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 (94%): \_\_\_\_\_YES \_\_\_\_NO

#### PERCENT SURVIVAL

|                 | Percent effluent |     |     |     |     |     |  |
|-----------------|------------------|-----|-----|-----|-----|-----|--|
| Time of Reading | 0%               | 30% | 40% | 53% | 71% | 94% |  |
| 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 (94%): \_\_\_\_\_ 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

Date Time Date Time

Dates and Times No. 1 FROM: \_\_\_\_\_\_ TO: \_\_\_\_\_

| Compos<br>Collecte | sites<br>d No. 2                              | FROM:                       |                          |                             | Te                     | O:        |                |                   |
|--------------------|---|-----------------------------|--------------------------|-----------------------------|------------------------|-----------|----------------|-------------------|
|                    | No. 3   | FROM:                       |                          |                             | To                     | O:        |                |                   |
| Te                 | est initiated:                                |                             |                          | am/pn                       | ı                      |           |                | date              |
|                    | Dilution water used:                          |                             | _ Receivin               | ıg water _                  |                        | Synthe    | tic dilution v | water             |
|                    |   | FATHE                       | AD MINN                  | IOW GROV                    | VTH DAT                | `A        |                |                   |
|                    | Effluent                                      | Avera                       | ge Dry We                | eight in rep                | licate cha             | mbers     | Mean<br>Dry    | CV%*              |
|                    | Concentration                                 | A                           | В                        | С                           | D                      | Е         | Weight         |                   |
|                    | 0%  |                             |                          |                             |                        |           |                |                   |
|                    | 30%   |                             |                          |                             |                        |           |                |                   |
|                    | 40%   |                             |                          |                             |                        |           |                |                   |
|                    | 53%   |                             |                          |                             |                        |           |                |                   |
|                    | 71%   |                             |                          |                             |                        |           |                |                   |
|                    | 94%   |                             |                          |                             |                        |           |                |                   |
|                    | PMSD  |                             |                          |                             |                        |           |                |                   |
| * Coeffic          | cient of Variation = s                        | standard dev                | viation x 1              | oo/mean                     |                        |           |                |                   |
|                    | Dunnett's Procedure<br>adjustment) or t-test  |                             |                          |                             |                        |           | Sum Test (w    | ith Bonferroni    |
| ]<br>t             | Is the mean dry weig<br>the % effluent corres | ht (growth)<br>ponding to s | at 7 days<br>significant | significantl<br>t nonlethal | y less tha<br>effects? | n the con | trol's dry we  | ight (growth) for |
|                    | CRIT  | CAL DILUT                   | TION (94                 | 4%):                        | YES _                  | 1         | NO.            |                   |

# TABLE 1 (SHEET 4 OF 4)

## BIOMONITORING REPORTING

## FATHEAD MINNOW GROWTH AND SURVIVAL TEST

## FATHEAD MINNOW SURVIVAL DATA

| Effluent      | Percent Survival in replicate chambers |   |   |   | Mean percent survival |     |     | CV%*  |  |
|---------------|--|---|---|---|-----------------------|-----|-----|-------|--|
| Concentration | A                                      | В | С | D | E                     | 24h | 48h | 7 day |  |
| 0%            |  |   |   |   |                       |     |     |       |  |
| 30%           |  |   |   |   |                       |     |     |       |  |
| 40%           |  |   |   |   |                       |     |     |       |  |
| 53%           |  |   |   |   |                       |     |     |       |  |
| 71%           | _                                      | - | _ | _ |                       | _   | _   | _     |  |
| 94%           | _                                      | - | _ |   |                       |     |     | _     |  |

<sup>\*</sup> 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 (94%):YESNO   |
| 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 whole effluent toxicity (WET) testing.

## 1. <u>Scope, Frequency, and Methodology</u>

- 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. Within 90 days of initial discharge of the 2.5 MGD facility, 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. 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, a chemical-specific limit, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

## 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 Part 1.c., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted 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 o-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. <u>Persistent Mortality</u>

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. <u>Toxicity Reduction Evaluation</u>

- 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;

- 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:
  - 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;
  - 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.
- 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.
- 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.
- j. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

# TABLE 2 (SHEET 1 OF 2)

## WATER FLEA SURVIVAL

## GENERAL INFORMATION

|                            | Time | Date |
|----------------------------|------|------|
| Composite Sample Collected |      |      |
| Test Initiated             |      |      |

## PERCENT SURVIVAL

| Time | Don  | Percent effluent |    |     |     |     |      |  |
|------|------|------------------|----|-----|-----|-----|------|--|
| Time | Rep  | 0%               | 6% | 13% | 25% | 50% | 100% |  |
|      | A    |                  |    |     |     |     |      |  |
|      | В    |                  |    |     |     |     |      |  |
| o 4h | C    |                  |    |     |     |     |      |  |
| 24h  | D    |                  |    |     |     |     |      |  |
|      | E    |                  |    |     |     |     |      |  |
|      | MEAN |                  |    |     |     |     |      |  |

| Enter i | percent | effluent | corres | ponding | to the | e LC50 | below:    |
|---------|---------|----------|--------|---------|--------|--------|-----------|
|         | percent | CITICOTT | COLICD | ponding | to thi | பட்டுப | DCIO III. |

24 hour LC50 = \_\_\_\_\_% effluent

# TABLE 2 (SHEET 2 OF 2)

## FATHEAD MINNOW SURVIVAL

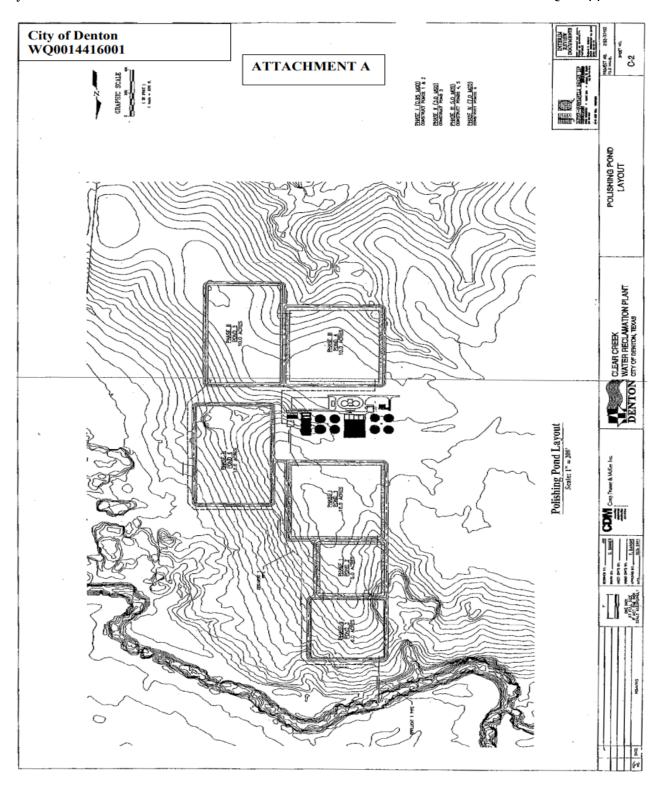
## GENERAL INFORMATION

|                            | Time | Date |
|----------------------------|------|------|
| Composite Sample Collected |      |      |
| Test Initiated             |      |      |

# PERCENT SURVIVAL

| Time | Don  | Percent effluent |    |     |     |     |      |
|------|------|------------------|----|-----|-----|-----|------|
|      | Rep  | 0%               | 6% | 13% | 25% | 50% | 100% |
|      | A    |                  |    |     |     |     |      |
|      | В    |                  |    |     |     |     |      |
| o 4h | C    |                  |    |     |     |     |      |
| 24h  | D    |                  |    |     |     |     |      |
|      | Е    |                  |    |     |     |     |      |
|      | MEAN |                  | _  |     | _   |     |      |

24 hour LC50 = \_\_\_\_\_% effluent



# **DOMESTIC WORKSHEET 4.0**

# POLLUTANT ANALYSES REQUIREMENTS\*

### **Section 1.** Toxic Pollutants

| For pollutants identified | d in Table 4.0(1), ind | licate type of sample |
|---------------------------|------------------------|-----------------------|
| Grab □                    | Composite □            |                       |

Date and time sample(s) collected:

Table 4.0(1) – Toxics Analysis

| Pollutant                  | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of<br>Samples | MAL (μg/l) |
|----------------------------|---------------------------|---------------------------|----------------------|------------|
| Acrylonitrile              |                           | 3 34                      |                      | 50         |
| Aldrin                     |                           |                           |                      | 0.01       |
| Aluminum                   |                           |                           |                      | 2.5        |
| Anthracene                 |                           |                           |                      | 10         |
| Antimony                   |                           |                           |                      | 5          |
| Arsenic                    |                           |                           |                      | 0.5        |
| Barium                     |                           |                           |                      | 3          |
| Benzene                    |                           |                           |                      | 10         |
| Benzidine                  |                           |                           |                      | 50         |
| Benzo(a)anthracene         |                           |                           |                      | 5          |
| Benzo(a)pyrene             |                           |                           |                      | 5          |
| Bis(2-chloroethyl)ether    |                           |                           |                      | 10         |
| Bis(2-ethylhexyl)phthalate |                           |                           |                      | 10         |
| Bromodichloromethane       |                           |                           |                      | 10         |
| Bromoform                  |                           |                           |                      | 10         |
| Cadmium                    |                           |                           |                      | 1          |
| Carbon Tetrachloride       |                           |                           |                      | 2          |
| Carbaryl                   |                           |                           |                      | 5          |
| Chlordane*                 |                           |                           |                      | 0.2        |

| Pollutant              | AVG<br>Effluent<br>Conc. (µg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL (μg/l) |
|------------------------|---------------------------------|---------------------------------|----------------------|------------|
| Chlorobenzene          |                                 |                                 |                      | 10         |
| Chlorodibromomethane   |                                 |                                 |                      | 10         |
| Chloroform             |                                 |                                 |                      | 10         |
| Chlorpyrifos           |                                 |                                 |                      | 0.05       |
| Chromium (Total)       |                                 |                                 |                      | 3          |
| Chromium (Tri) (*1)    |                                 |                                 |                      | N/A        |
| Chromium (Hex)         |                                 |                                 |                      | 3          |
| Copper                 |                                 |                                 |                      | 2          |
| Chrysene               |                                 |                                 |                      | 5          |
| p-Chloro-m-Cresol      |                                 |                                 |                      | 10         |
| 4,6-Dinitro-o-Cresol   |                                 |                                 |                      | 50         |
| p-Cresol               |                                 |                                 |                      | 10         |
| Cyanide (*2)           |                                 |                                 |                      | 10         |
| 4,4'- DDD              |                                 |                                 |                      | 0.1        |
| 4,4'- DDE              |                                 |                                 |                      | 0.1        |
| 4,4'- DDT              |                                 |                                 |                      | 0.02       |
| 2,4-D                  |                                 |                                 |                      | 0.7        |
| Demeton (O and S)      |                                 |                                 |                      | 0.20       |
| Diazinon               |                                 |                                 |                      | 0.5/0.1    |
| 1,2-Dibromoethane      |                                 |                                 |                      | 10         |
| m-Dichlorobenzene      |                                 |                                 |                      | 10         |
| o-Dichlorobenzene      |                                 |                                 |                      | 10         |
| p-Dichlorobenzene      |                                 |                                 |                      | 10         |
| 3,3'-Dichlorobenzidine |                                 |                                 |                      | 5          |
| 1,2-Dichloroethane     |                                 |                                 |                      | 10         |
| 1,1-Dichloroethylene   |                                 |                                 |                      | 10         |

| Pollutant                     | AVG<br>Effluent<br>Conc. (µg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL (μg/l) |
|-------------------------------|---------------------------------|---------------------------------|----------------------|------------|
| Dichloromethane               | 3.07                            | 3 0/                            |                      | 20         |
| 1,2-Dichloropropane           |                                 |                                 |                      | 10         |
| 1,3-Dichloropropene           |                                 |                                 |                      | 10         |
| Dicofol                       |                                 |                                 |                      | 1          |
| Dieldrin                      |                                 |                                 |                      | 0.02       |
| 2,4-Dimethylphenol            |                                 |                                 |                      | 10         |
| Di-n-Butyl Phthalate          |                                 |                                 |                      | 10         |
| Diuron                        |                                 |                                 |                      | 0.09       |
| Endosulfan I (alpha)          |                                 |                                 |                      | 0.01       |
| Endosulfan II (beta)          |                                 |                                 |                      | 0.02       |
| Endosulfan Sulfate            |                                 |                                 |                      | 0.1        |
| Endrin                        |                                 |                                 |                      | 0.02       |
| Ethylbenzene                  |                                 |                                 |                      | 10         |
| Fluoride                      |                                 |                                 |                      | 500        |
| Guthion                       |                                 |                                 |                      | 0.1        |
| Heptachlor                    |                                 |                                 |                      | 0.01       |
| Heptachlor Epoxide            |                                 |                                 |                      | 0.01       |
| Hexachlorobenzene             |                                 |                                 |                      | 5          |
| Hexachlorobutadiene           |                                 |                                 |                      | 10         |
| Hexachlorocyclohexane (alpha) |                                 |                                 |                      | 0.05       |
| Hexachlorocyclohexane (beta)  |                                 |                                 |                      | 0.05       |
| gamma-Hexachlorocyclohexane   |                                 |                                 |                      | 0.05       |
| (Lindane)                     |                                 |                                 |                      |            |
| Hexachlorocyclopentadiene     |                                 |                                 |                      | 10         |
| Hexachloroethane              |                                 |                                 |                      | 20         |
| Hexachlorophene               |                                 |                                 |                      | 10         |

| Pollutant                              | AVG<br>Effluent<br>Conc. (µg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL (μg/l) |
|--|---------------------------------|---------------------------------|----------------------|------------|
| Lead                                   | SPO 7                           | N'O'                            |                      | 0.5        |
| Malathion                              |                                 |                                 |                      | 0.1        |
| Mercury                                |                                 |                                 |                      | 0.005      |
| Methoxychlor                           |                                 |                                 |                      | 2          |
| Methyl Ethyl Ketone                    |                                 |                                 |                      | 50         |
| Mirex                                  |                                 |                                 |                      | 0.02       |
| Nickel                                 |                                 |                                 |                      | 2          |
| Nitrate-Nitrogen                       |                                 |                                 |                      | 100        |
| Nitrobenzene                           |                                 |                                 |                      | 10         |
| N-Nitrosodiethylamine                  |                                 |                                 |                      | 20         |
| N-Nitroso-di-n-Butylamine              |                                 |                                 |                      | 20         |
| Nonylphenol                            |                                 |                                 |                      | 333        |
| Parathion (ethyl)                      |                                 |                                 |                      | 0.1        |
| Pentachlorobenzene                     |                                 |                                 |                      | 20         |
| Pentachlorophenol                      |                                 |                                 |                      | 5          |
| Phenanthrene                           |                                 |                                 |                      | 10         |
| Polychlorinated Biphenyls (PCB's) (*3) |                                 |                                 |                      | 0.2        |
| Pyridine                               |                                 |                                 |                      | 20         |
| Selenium                               |                                 |                                 |                      | 5          |
| Silver                                 |                                 |                                 |                      | 0.5        |
| 1,2,4,5-Tetrachlorobenzene             |                                 |                                 |                      | 20         |
| 1,1,2,2-Tetrachloroethane              |                                 |                                 |                      | 10         |
| Tetrachloroethylene                    |                                 |                                 |                      | 10         |
| Thallium                               |                                 |                                 |                      | 0.5        |
| Toluene                                |                                 |                                 |                      | 10         |
| Toxaphene                              |                                 |                                 |                      | 0.3        |

| Pollutant                                      | AVG<br>Effluent<br>Conc. (μg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL (μg/l) |
|--|---------------------------------|---------------------------------|----------------------|------------|
| 2,4,5-TP (Silvex)                              |                                 | •                               |                      | 0.3        |
| Tributyltin (see instructions for explanation) |                                 |                                 |                      | 0.01       |
| 1,1,1-Trichloroethane                          |                                 |                                 |                      | 10         |
| 1,1,2-Trichloroethane                          |                                 |                                 |                      | 10         |
| Trichloroethylene                              |                                 |                                 |                      | 10         |
| 2,4,5-Trichlorophenol                          |                                 |                                 |                      | 50         |
| TTHM (Total Trihalomethanes)                   |                                 |                                 |                      | 10         |
| Vinyl Chloride                                 |                                 |                                 |                      | 10         |
| Zinc   |                                 |                                 |                      | 5          |

<sup>(\*1)</sup> Determined by subtracting hexavalent Cr from total Cr.

<sup>(\*2)</sup> Cyanide, amenable to chlorination or weak-acid dissociable.

<sup>(\*3)</sup> The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

# **Section 2.** Priority Pollutants

| For pollutants identified i | n Tables 4.0(2)A- | -E, indicate type of sample |
|-----------------------------|-------------------|-----------------------------|
| Grab □                      | Composite □       |                             |
| Date and time sample(s)     | rollected.        |                             |

# Table 4.0(2)A – Metals, Cyanide, Phenols

| Pollutant           | AVG<br>Effluent<br>Conc. (µg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL<br>(μg/l) |
|---------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Antimony            |                                 |                                 |                      | 5             |
| Arsenic             |                                 |                                 |                      | 0.5           |
| Beryllium           |                                 |                                 |                      | 0.5           |
| Cadmium             |                                 |                                 |                      | 1             |
| Chromium (Total)    |                                 |                                 |                      | 3             |
| Chromium (Hex)      |                                 |                                 |                      | 3             |
| Chromium (Tri) (*1) |                                 |                                 |                      | N/A           |
| Copper              |                                 |                                 |                      | 2             |
| Lead                |                                 |                                 |                      | 0.5           |
| Mercury             |                                 |                                 |                      | 0.005         |
| Nickel              |                                 |                                 |                      | 2             |
| Selenium            |                                 |                                 |                      | 5             |
| Silver              |                                 |                                 |                      | 0.5           |
| Thallium            |                                 |                                 |                      | 0.5           |
| Zinc                |                                 |                                 |                      | 5             |
| Cyanide (*2)        |                                 |                                 |                      | 10            |
| Phenols, Total      |                                 |                                 |                      | 10            |

<sup>(\*1)</sup> Determined by subtracting hexavalent Cr from total Cr.

(\*2) Cyanide, amenable to chlorination or weak-acid dissociable

# Table 4.0(2)B – Volatile Compounds

| Pollutant   | AVG<br>Effluent<br>Conc. (μg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL<br>(μg/l) |
|---|---------------------------------|---------------------------------|----------------------|---------------|
| Acrolein  |                                 |                                 |                      | 50            |
| Acrylonitrile   |                                 |                                 |                      | 50            |
| Benzene   |                                 |                                 |                      | 10            |
| Bromoform   |                                 |                                 |                      | 10            |
| Carbon Tetrachloride  |                                 |                                 |                      | 2             |
| Chlorobenzene   |                                 |                                 |                      | 10            |
| Chlorodibromomethane  |                                 |                                 |                      | 10            |
| Chloroethane  |                                 |                                 |                      | 50            |
| 2-Chloroethylvinyl Ether  |                                 |                                 |                      | 10            |
| Chloroform  |                                 |                                 |                      | 10            |
| Dichlorobromomethane  |                                 |                                 |                      | 10            |
| 1,1-Dichloroethane  |                                 |                                 |                      | 10            |
| 1,2-Dichloroethane  |                                 |                                 |                      | 10            |
| 1,1-Dichloroethylene  |                                 |                                 |                      | 10            |
| 1,2-Dichloropropane<br>1,3-Dichloropropylene<br>[1,3-Dichloropropene] |                                 |                                 |                      | 10            |
| 1,2-Trans-Dichloroethylene  |                                 |                                 |                      | 10            |
| Ethylbenzene  |                                 |                                 |                      | 10            |
| Methyl Bromide  |                                 |                                 |                      | 50            |
| Methyl Chloride   |                                 |                                 |                      | 50            |
| Methylene Chloride  |                                 |                                 |                      | 20            |
| 1,1,2,2-Tetrachloroethane   |                                 |                                 |                      | 10            |
| Tetrachloroethylene   |                                 |                                 |                      | 10            |
| Toluene   |                                 |                                 |                      | 10            |
| 1,1,1-Trichloroethane   |                                 |                                 |                      | 10            |
| 1,1,2-Trichloroethane   |                                 |                                 |                      | 10            |
| Trichloroethylene   |                                 |                                 |                      | 10            |
| Vinyl Chloride  |                                 |                                 |                      | 10            |

# Table 4.0(2)C - Acid Compounds

| Pollutant             | AVG<br>Effluent<br>Conc. (µg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL<br>(μg/l) |
|-----------------------|---------------------------------|---------------------------------|----------------------|---------------|
| 2-Chlorophenol        |                                 |                                 |                      | 10            |
| 2,4-Dichlorophenol    |                                 |                                 |                      | 10            |
| 2,4-Dimethylphenol    |                                 |                                 |                      | 10            |
| 4,6-Dinitro-o-Cresol  |                                 |                                 |                      | 50            |
| 2,4-Dinitrophenol     |                                 |                                 |                      | 50            |
| 2-Nitrophenol         |                                 |                                 |                      | 20            |
| 4-Nitrophenol         |                                 |                                 |                      | 50            |
| P-Chloro-m-Cresol     |                                 |                                 |                      | 10            |
| Pentalchlorophenol    |                                 |                                 |                      | 5             |
| Phenol                |                                 |                                 |                      | 10            |
| 2,4,6-Trichlorophenol |                                 |                                 |                      | 10            |

# Table 4.0(2)D – Base/Neutral Compounds

| Pollutant                             | AVG<br>Effluent<br>Conc. (μg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL<br>(μg/l) |
|---------------------------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Acenaphthene                          |                                 |                                 |                      | 10            |
| Acenaphthylene                        |                                 |                                 |                      | 10            |
| Anthracene                            |                                 |                                 |                      | 10            |
| Benzidine                             |                                 |                                 |                      | 50            |
| Benzo(a)Anthracene                    |                                 |                                 |                      | 5             |
| Benzo(a)Pyrene                        |                                 |                                 |                      | 5             |
| 3,4-Benzofluoranthene                 |                                 |                                 |                      | 10            |
| Benzo(ghi)Perylene                    |                                 |                                 |                      | 20            |
| Benzo(k)Fluoranthene                  |                                 |                                 |                      | 5             |
| Bis(2-Chloroethoxy)Methane            |                                 |                                 |                      | 10            |
| Bis(2-Chloroethyl)Ether               |                                 |                                 |                      | 10            |
| Bis(2-Chloroisopropyl)Ether           |                                 |                                 |                      | 10            |
| Bis(2-Ethylhexyl)Phthalate            |                                 |                                 |                      | 10            |
| 4-Bromophenyl Phenyl Ether            |                                 |                                 |                      | 10            |
| Butyl benzyl Phthalate                |                                 |                                 |                      | 10            |
| 2-Chloronaphthalene                   |                                 |                                 |                      | 10            |
| 4-Chlorophenyl phenyl ether           |                                 |                                 |                      | 10            |
| Chrysene                              |                                 |                                 |                      | 5             |
| Dibenzo(a,h)Anthracene                |                                 |                                 |                      | 5             |
| 1,2-(o)Dichlorobenzene                |                                 |                                 |                      | 10            |
| 1,3-(m)Dichlorobenzene                |                                 |                                 |                      | 10            |
| 1,4-(p)Dichlorobenzene                |                                 |                                 |                      | 10            |
| 3,3-Dichlorobenzidine                 |                                 |                                 |                      | 5             |
| Diethyl Phthalate                     |                                 |                                 |                      | 10            |
| Dimethyl Phthalate                    |                                 |                                 |                      | 10            |
| Di-n-Butyl Phthalate                  |                                 |                                 |                      | 10            |
| 2,4-Dinitrotoluene                    |                                 |                                 |                      | 10            |
| 2,6-Dinitrotoluene                    |                                 |                                 |                      | 10            |
| Di-n-Octyl Phthalate                  |                                 |                                 |                      | 10            |
| 1,2-Diphenylhydrazine (as Azobenzene) |                                 |                                 |                      | 20            |
| Fluoranthene                          |                                 |                                 |                      | 10            |
| Fluorene                              |                                 |                                 |                      | 10            |
| Hexachlorobenzene                     |                                 |                                 |                      | 5             |
| Hexachlorobutadiene                   |                                 |                                 |                      | 10            |
| Hexachlorocyclo-pentadiene            |                                 |                                 |                      | 10            |

| Pollutant                 | AVG<br>Effluent<br>Conc. (µg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL<br>(μg/l) |
|---------------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Hexachloroethane          |                                 |                                 |                      | 20            |
| Indeno(1,2,3-cd)pyrene    |                                 |                                 |                      | 5             |
| Isophorone                |                                 |                                 |                      | 10            |
| Naphthalene               |                                 |                                 |                      | 10            |
| Nitrobenzene              |                                 |                                 |                      | 10            |
| N-Nitrosodimethylamine    |                                 |                                 |                      | 50            |
| N-Nitrosodi-n-Propylamine |                                 |                                 |                      | 20            |
| N-Nitrosodiphenylamine    |                                 |                                 |                      | 20            |
| Phenanthrene              |                                 |                                 |                      | 10            |
| Pyrene                    |                                 |                                 |                      | 10            |
| 1,2,4-Trichlorobenzene    |                                 |                                 |                      | 10            |

# Table 4.0(2)E - Pesticides

| Pollutant                                  | AVG<br>Effluent<br>Conc. (µg/l) | MAX<br>Effluent<br>Conc. (μg/l) | Number of<br>Samples | MAL<br>(μg/l) |
|--|---------------------------------|---------------------------------|----------------------|---------------|
| Aldrin                                     |                                 |                                 |                      | 0.01          |
| alpha-BHC (Hexachlorocyclohexane)          |                                 |                                 |                      | 0.05          |
| beta-BHC (Hexachlorocyclohexane) gamma-BHC |                                 |                                 |                      | 0.05          |
| (Hexachlorocyclohexane)                    |                                 |                                 |                      | 0.05          |
| delta-BHC (Hexachlorocyclohexane)          |                                 |                                 |                      | 0.05          |
| Chlordane                                  |                                 |                                 |                      | 0.2           |
| 4,4-DDT                                    |                                 |                                 |                      | 0.02          |
| 4,4-DDE                                    |                                 |                                 |                      | 0.1           |
| 4,4,-DDD                                   |                                 |                                 |                      | 0.1           |
| Dieldrin                                   |                                 |                                 |                      | 0.02          |
| Endosulfan I (alpha)                       |                                 |                                 |                      | 0.01          |
| Endosulfan II (beta)                       |                                 |                                 |                      | 0.02          |
| Endosulfan Sulfate                         |                                 |                                 |                      | 0.1           |
| Endrin                                     |                                 |                                 |                      | 0.02          |
| Endrin Aldehyde                            |                                 |                                 |                      | 0.1           |
| Heptachlor                                 |                                 |                                 |                      | 0.01          |
| Heptachlor Epoxide                         |                                 |                                 |                      | 0.01          |
| PCB-1242                                   |                                 |                                 |                      | 0.2           |
| PCB-1254                                   |                                 |                                 |                      | 0.2           |
| PCB-1221                                   |                                 |                                 |                      | 0.2           |
| PCB-1232                                   |                                 |                                 |                      | 0.2           |
| PCB-1248                                   |                                 |                                 |                      | 0.2           |
| PCB-1260                                   |                                 |                                 |                      | 0.2           |
| PCB-1016                                   |                                 |                                 |                      | 0.2           |
| Toxaphene                                  |                                 |                                 |                      | 0.3           |

# Section 3. Dioxin/Furan Compounds

| <b>A.</b>       | Are any of the following compounds used by a contributing industrial user or significant industrial user that is part of the collection system for the facility that you have reason to believe are present in the influent to the WWTP? |
|-----------------|--|
|                 | Yes $\square$ No $\square$ If <b>yes</b> , identify which compound(s) are potentially sent to the facility.  |
|                 | 2,4,5-trichlorophenoxy acetic acid<br>Common Name 2,4,5-T, CASRN 93-76-5   |
|                 | 2-(2,4,5-trichlorophenoxy) propanoic acid<br>Common Name Silvex or 2,4,5-TP, CASRN 93-72-1   |
|                 | 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate<br>Common Name Erbon, CASRN 136-25-4   |
|                 | o,o-dimethyl o-(2,4,5-trichlorophenyl) phosphorothioate<br>Common Name Ronnel, CASRN 299-84-3  |
|                 | 2,4,5-trichlorophenol<br>Common Name TCP, CASRN 95-95-4  |
|                 | hexachlorophene<br>Common Name HCP, CASRN 70-30-4  |
|                 | For each compound identified, provide a brief description of the conditions of its/their presence at the facility.   |
|                 |  |
|                 |  |
| В.              | Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?  |
|                 | Yes □ No □   |
| If <b>ye</b> s, | provide a brief description of the conditions for its presence.  |
|                 |  |
| If              | you responded <b>yes</b> to either Subsection A <b>or</b> B, complete Table 4.0(2)F.   |
| •               | llutants identified in Table 4.0(2)F, indicate type of sample.  Grab   Composite   nd time sample(s) collected:  |
|                 |  |

# TABLE 4.0(2)F - DIOXIN/FURAN COMPOUNDS

| Compound               | Toxic<br>Equivalency<br>Factors | Wastewater<br>Concentration<br>(ppq) | Wastewater<br>Equivalents<br>(ppq) | Sludge<br>Concentration<br>(ppt) | Sludge<br>Equivalents<br>(ppt) | MAL<br>(ppq) |
|------------------------|---------------------------------|--------------------------------------|------------------------------------|----------------------------------|--------------------------------|--------------|
| 2,3,7,8 TCDD           | 1                               |                                      |                                    |                                  |                                | 10           |
| 1,2,3,7,8 PeCDD        | 0.5                             |                                      |                                    |                                  |                                | 50           |
| 2,3,7,8 HxCDDs         | 0.1                             |                                      |                                    |                                  |                                | 50           |
| 1,2,3,4,6,7,8<br>HpCDD | 0.01                            |                                      |                                    |                                  |                                | 50           |
| 2,3,7,8 TCDF           | 0.1                             |                                      |                                    |                                  |                                | 10           |
| 1,2,3,7,8 PeCDF        | 0.05                            |                                      |                                    |                                  |                                | 50           |
| 2,3,4,7,8 PeCDF        | 0.5                             |                                      |                                    |                                  |                                | 50           |
| 2,3,7,8 HxCDFs         | 0.1                             |                                      |                                    |                                  |                                | 50           |
| 2,3,4,7,8 HpCDFs       | 0.01                            |                                      |                                    |                                  |                                | 50           |
| OCDD                   | 0.0003                          |                                      |                                    |                                  |                                | 100          |
| OCDF                   | 0.0003                          |                                      |                                    |                                  |                                | 100          |
| PCB 77                 | 0.0001                          |                                      |                                    |                                  |                                | 0.5          |
| PCB 81                 | 0.0003                          |                                      |                                    |                                  |                                | 0.5          |
| PCB 126                | 0.1                             |                                      |                                    |                                  |                                | 0.5          |
| PCB 169                | 0.03                            |                                      |                                    |                                  |                                | 0.5          |
| Total                  |                                 |                                      |                                    |                                  |                                |              |

#### FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014416001, EPA I.D. No. TX0125628, to discharge to water in the state.

Issuing Office: Texas Commission on Environmental Quality

P.O. Box 13087

Austin, Texas 78711-3087

Applicant: City of Denton

1100 South Mayhill Road Denton, Texas 76208

Prepared By: Abdur Rahim

**Municipal Permits Team** 

Wastewater Permitting Section (MC 148)

Water Quality Division

(512) 239-0504

Date: February 3, 2025

Permit Action: Major Amendment with 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 **five years from the date of issuance**.

### 2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment of the existing permit to authorize an increase in the discharge of treated domestic wastewater from a daily average flow not to exceed 0.95 million gallons per day (MGD) to an annual average flow not to exceed 10.0 MGD. The existing wastewater treatment facility will serve Clear/Milam Creek Sewer Basins in the north part of Denton.

## 3. FACILITY AND DISCHARGE LOCATION

The plant site will be located approximately 0.5 mile north of the intersection of Collins Road and Hartlee Field Road, in the City of Denton, Denton County, Texas 76208.

### **Outfall Location:**

| Outfall Number | Latitude    | Longitude   |  |
|----------------|-------------|-------------|--|
| 001            | 33.279218 N | 97.067088 W |  |

The treated effluent is discharged to a series of ponds, thence to Clear Creek, thence to Lewisville Lake in Segment No. 0823 of the Trinity River Basin. The unclassified receiving water uses are minimal aquatic life use for the ponds and high aquatic life use

for Clear Creek. The designated uses for Segment No. 0823 are primary contact recreation, public water supply, and high aquatic life use.

## 4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The Clear Creek Water Reclamation Plant will consist of a membrane bioreactor (MBR) treatment system, which combines conventional biological activated sludge processes with membrane filtration. Treatment units in the Interim I phase will include coarse screens, grit chambers, fine screens, two primary clarifiers, four anoxic basins, four anaerobic basins, four pre-aeration basins, four membrane basins, two anaerobic digesters, and an UV disinfection basin. Treatment units in the Interim II phase will include coarse screens, grit chambers, fine screens, two primary clarifiers, eight anoxic basins, eight anaerobic basins, eight pre-aeration basins, eight membrane basins, two anaerobic digesters, and an UV disinfection basin. Treatment units in the Final phase will include coarse screens, grit chambers, fine screens, four primary clarifiers, sixteen anoxic basins, sixteen anaerobic basins, sixteen pre-aeration basins, sixteen membrane basins, two anaerobic digesters, and an UV disinfection basin. The facility has not been constructed.

Sludge generated from the treatment facility is hauled by a registered transporter to City of Denton Pecan Creek Water Reclamation Plant, Permit No. WQ0010027003, to be digested, dewatered, and then disposed of with the bulk of the sludge from the plant accepting the sludge. Sludge generated from the treatment facility is composted on-site as authorized in the permit for marketing and distribution. The draft permit also 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 Clear Creek WRP does not appear to receive significant industrial wastewater contributions.

#### 6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

Self-reporting data is not available since the facility is not in operation.

## 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 I PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 2.5 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 6,944 gallons per minute.

| <u>Parameter</u> | <u> 30-Day Average</u> | <u>7-Day</u> | <u>Daily</u> |
|------------------|------------------------|--------------|--------------|
|                  |                        | Average      | Maximum      |

|                     | <u>mg/l</u> | <u>lbs/day</u> | <u>mg/l</u> | <u>mg/l</u> |
|---------------------|-------------|----------------|-------------|-------------|
| $\mathrm{CBOD}_5$   | 5           | 104            | 10          | 20          |
| TSS                 | 5           | 104            | 10          | 20          |
| $NH_3$ - $N$        | 1           | 21             | 3           | 6           |
| Total Phosphorus    | 0.5         | 10             | 1           | 2           |
| DO (minimum)        | 5.0         | N/A            | N/A         | N/A         |
| E. coli, CFU or MPN | 126         | N/A            | N/A         | 399         |
| per 100 ml          |             |                |             |             |

The pH shall not be less than 6.0 standard units 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 permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

| <u>Parameter</u>   | Monitoring Requirement |
|--------------------|------------------------|
| Flow, MGD          | Continuous             |
| $CBOD_5$           | Two/week               |
| TSS                | Two/week               |
| NH <sub>3</sub> -N | Two/week               |
| Total P            | Two/week               |
| DO                 | Two/week               |
| E. coli            | Daily                  |
|                    |                        |

# B. INTERIM II PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 5.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 13,888 gallons per minute.

| <u>Parameter</u>    | <u>30-Day Average</u> |                | <u>7-Day</u>   | <u>Daily</u>   |
|---------------------|-----------------------|----------------|----------------|----------------|
|                     |                       |                | <u>Average</u> | <u>Maximum</u> |
|                     | <u>mg/l</u>           | <u>lbs/day</u> | <u>mg/l</u>    | <u>mg/l</u>    |
| $\mathrm{CBOD}_5$   | 5                     | 209            | 10             | 20             |
| TSS                 | 5                     | 209            | 10             | 20             |
| $NH_3$ - $N$        | 1                     | 42             | 3              | 6              |
| Total Phosphorus    | 0.5                   | 21             | 1              | 2              |
| DO (minimum)        | 5.0                   | N/A            | N/A            | N/A            |
| E. coli, CFU or MPN | 126                   | N/A            | N/A            | 399            |
| per 100 ml          |                       |                |                |                |

The pH shall not be less than 6.0 standard units 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 permittee shall utilize an Ultraviolet Light (UV) system for disinfection

purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

| <u>Parameter</u> | Monitoring Requirement |
|------------------|------------------------|
| Flow, MGD        | Continuous             |
| $CBOD_5$         | Two/week               |
| TSS              | Two/week               |
| $NH_3$ - $N$     | Two/week               |
| Total P          | Two/week               |
| DO               | Two/week               |
| E. coli          | Daily                  |
|                  |                        |

# C. FINAL PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 10 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 27,776 gallons per minute.

| <u>Parameter</u>  | <u> 30-Day Average</u> |                | <u>7-Day</u>   | <u>Daily</u>   |
|-------------------|------------------------|----------------|----------------|----------------|
|                   | - ,                    |                | <u>Average</u> | <u>Maximum</u> |
|                   | <u>mg/l</u>            | <u>lbs/day</u> | mg/l           | <u>mg/l</u>    |
| $\mathrm{CBOD}_5$ | 5                      | 417            | 10             | 20             |
| TSS               | 5                      | 417            | 10             | 20             |
| $NH_3$ -N         | 1                      | 83             | 3              | 6              |
| Total Phosphorus  | 0.5                    | 42             | 1              | 2              |
| DO (minimum)      | 5.0                    | N/A            | N/A            | N/A            |
| E. coli, CFU or   | 126                    | N/A            | N/A            | 399            |
| MPN/100 ml        |                        |                |                |                |

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day 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 permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

| $\begin{array}{c} \underline{Parameter} \\ Flow, MGD \\ CBOD_5 \\ TSS \\ NH_3-N \\ Total P \\ DO \end{array}$ | Monitoring Requirement Continuous One/day One/day One/day One/day One/day One/day |
|---|---|
| E. coli   | Daily   |
|   |   |

### D. SEWAGE SLUDGE REQUIREMENTS

The draft permit includes Sludge Provisions according to the requirements of 30

TAC Chapter 312, Sludge Use, Disposal, and Transportation. Sludge generated from the treatment facility is hauled by a registered transporter to City of Denton Pecan Creek Wastewater Treatment Facility, Permit No. WQ0010027003, to be digested, dewatered, and then disposed of with the bulk of the sludge from the plant accepting the sludge. Sludge generated from the treatment facility is composted on-site as authorized in the permit for marketing and distribution. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

#### E. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 308 which references 40 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.

The permittee has a pretreatment program which was approved by the U.S. Environmental Protection Agency (EPA) on March 16, 1984, and modified on September 24, 1993, August 31, 2005, June 28, 2013, and April 5, 2022 (Streamlining Rule). The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which during the preceding twelve months were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of March in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

Effective December 21, 2025, the permittee must submit the pretreatment program annual status report electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. [rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].

The permittee is under a continuing duty to: establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, to develop and enforce local limits as necessary, and to modify the approved POTW pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee is required to effectively enforce such limits and to modify their pretreatment program, including the Legal Authority, Enforcement Response Plan, and/or Standard Operating Procedures, if required by the Executive Director to reflect changing conditions at the POTW.

### F. 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 30%, 40%, 53%, 71%, and 94%. The low-flow effluent concentration (critical dilution) is defined as 94% 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*).

#### G. BUFFER ZONE REQUIREMENTS

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, the permittee shall comply with the requirements of 30 TAC § 309.13(e).

H. SUMMARY OF CHANGES FROM APPLICATION

None

#### I. SUMMARY OF CHANGES FROM EXISTING PERMIT

The Standard Permit Conditions, Sludge Provisions, Other Requirements, and Biomonitoring sections of the draft permit have been updated.

An Interim I phase with an annual average flow of 2.5 MGD, an Interim II phase with an annual average flow of 5.0 MGD, and a Final phase with an annual average flow of 10.0 MGD were included in the draft permit. The treatment process has been updated from conventional treatment system to a membrane bioreactor (MBR) system as per applicant's major amendment request in the application. In addition, biomonitoring requirements have been added for all phases.

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.

Certain accidental discharges or spills of treated or untreated was tewater from wastewater treatment facilities or collection systems owned or operated by a local government may be reported on a monthly basis in accordance with 30 TAC  $\S$  305.132.

The facility's location description in the existing permit has been updated to state: located approximately 0.5 mile north of the intersection of Collins Road and Hartlee Field Road, in the City of Denton, Denton County, Texas 76208.

Other Requirement No. 10 has been added to the draft permit as per TCEQ Water Quality Assessment's recommendation.

The draft permit includes authorization to market and distribute Class A or AB biosolids.

The draft permit includes all updates based on the 30 TAC § 312 rule change effective April 23, 2020.

#### 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).

#### B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

### (1) WATER QUALITY SUMMARY

The treated effluent is discharged to a series of ponds, thence to Clear Creek, thence to Lewisville Lake in Segment No. 0823 of the Trinity River Basin. The unclassified receiving water uses are minimal aquatic life use for the ponds and high aquatic life use for Clear Creek. The designated uses for Segment No. 0823 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. In accordance with 30 Texas Administrative Code §307.5 and the TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined

that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Clear Creek and Lewisville Lake, which have been identified as high aquatic life uses. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

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's) biological opinion on the State of Texas authorization of the 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. 0823 is not currently listed on the State's inventory of impaired and threatened waters (the 2022 CWA § 303(d) list).

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.

#### (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 effluent limitations in the draft permit have been reviewed for consistency with the WQMP. The proposed effluent limitations are not contained in the approved WQMP. However, these limits will be included in the next WQMP update.

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, June 2010" 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).

There is no mixing zone or zone of initial dilution for this discharge directly to an intermittent stream; acute freshwater criteria apply at the end of pipe. Chronic freshwater criteria are applied in the perennial freshwater stream.

For the intermittent stream, the percent effluent for acute protection of aquatic life is 100% because the 7Q2 of the intermittent stream is 0.0 cfs. This effluent percentage also provides acute protection of aquatic life in the perennial stream. TCEQ uses the mass balance equation to estimate dilution in the perennial stream during critical conditions. The estimated dilution for chronic protection of aquatic life is calculated using the permitted flow of 10 MGD and the 7-day, 2-year (7Q2) flow of 0 cfs for clear lake, the perennial stream. The following critical effluent percentages are being used:

Acute Effluent %: 100% Chronic Effluent %: 94.16%

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 90<sup>th</sup> 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 LTA 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 99<sup>th</sup> 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*, June 2010." The segment values are 106 mg/l for hardness (as calcium carbonate), 80 mg/l chlorides, 7.7 standard units for pH, and 7.0 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 are required when analytical data reported in the application exceeds 70% of the calculated daily average water quality-based effluent limitation. See Attachment A of this Fact Sheet.

#### (b) PERMIT ACTION

No analytical data is available for screening against water quality-based effluent limitations because the facility is not in operation.

## (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 for human health protection in the perennial stream. TCEQ uses the mass balance equation to estimate dilution in the perennial stream during average flow conditions. The estimated dilution for human health protection is calculated using the permitted flow of 10 MGD and the harmonic mean flow of 1.47 cfs for Clear Creek. The following critical effluent percentage is being used:

Human Health Effluent %: 91.323%

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 for discharges into lakes and reservoirs. The human health mixing zone for this discharge is defined as a 103-foot radius from the point where the discharge enters Lewisville Lake. TCEQ uses the U.S. Environmental Protection Agency horizontal jet plume model to estimate dilution at the edge of the human health mixing zone for Lewisville Lake discharges greater than 10 MGD into lakes or reservoirs and/or discharges into sections of lakes or reservoirs that are less than 200 feet wide. General assumptions used in the horizontal jet plume model are: a non-buoyant discharge, a submersed pipe, and no cross flow. Based on this analysis, the following critical effluent percentage is calculated based on the permitted flow of 10 MGD:

Human Health Effluent %: 15%

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 99<sup>th</sup> 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 A of this Fact Sheet.

#### (b) PERMIT ACTION

No analytical data is available for screening against water quality-based effluent limitations because the facility is not in operation.

#### (4) DRINKING WATER SUPPLY PROTECTION

#### (a) SCREENING

Water Quality Segment No. 0823, which receives the discharge from this facility, is designated as a public water supply. The screening procedure used to calculate water quality-based effluent limitations and determine the need for effluent limitations or monitoring requirements is identical to the procedure outlined in the aquatic organism bioaccumulation section of this fact sheet. Criteria used in the calculation of water quality-based effluent limitations for the protection of a drinking water supply are outlined in Table 2 (Water and Fish) of the Texas Surface Water Quality Standards (30 TAC Chapter 307). These criteria are developed from either drinking water maximum contaminant level (MCL) criteria outlined in 30 TAC Chapter 290 or from the combined human health effects of exposure to consumption of fish tissue and ingestion of drinking water.

### (b) PERMIT ACTION

No analytical data is available for screening against water quality-based effluent limitations because the facility is not in operation.

#### (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 applicant is not currently monitoring whole effluent toxicity because the requirements do not take effect until the 2.5 MGD phase.

## (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.

No analytical data is available because the facility is not in operation.

#### (6) WHOLE EFFLUENT TOXICITY CRITERIA (24-HOUR ACUTE)

## (a) SCREENING

The current facility discharges at a phase less than 1.0 MGD. Therefore, there is no WET testing history to review. WET testing will commence within 90 days of initial discharge of the 2.5 MGD interim phase facility.

#### (b) PERMIT ACTION

The draft permit includes 24-hour 100% acute biomonitoring tests for the life of the permit. The applicant is not currently monitoring whole effluent toxicity because the requirements do not take effect until the Interim I (2.5 MGD) phase.

## 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 Abdur Rahim at (512) 239-0504.

#### 11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

### A. PERMIT(S)

TPDES Permit No. WQ0014416001 issued on April 5, 2022.

### B. APPLICATION

Application received on May 1, 2024.

### 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 2022 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, June 1, 2022; approved by the U.S. Environmental Protection Agency on July 7, 2022.

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.

### **Attachment A: Calculated Water Quality Based Effluent Limitations**

## TEXTOX MENU #2 - INTERMITTENT STREAM WITHIN 3 MILES OF A FRESHWATER PERENNIAL STREAM/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," TCEQ, June 2010

### PERMIT INFORMATION

| Permittee Name:   | City of Denton   |
|-------------------|------------------|
| TPDES Permit No.: | WQ0014416001     |
| Outfall No.:      | 001              |
| Prepared by:      | Abdur Rahim      |
| Date:             | January 21, 2025 |

#### **DISCHARGE INFORMATION**

| DISCHARGE IN CRIMATION                             |                                    |
|--|------------------------------------|
| Intermittent Receiving Waterbody:                  | Bermed ponds thence to Clear Creek |
| Perennial Stream/River within 3 Miles:             | Clear Creek                        |
| Segment No.:                                       | 0823                               |
| TSS (mg/L):  | 7                                  |
| pH (Standard Units):                               | 7.7                                |
| Hardness (mg/L as CaCO₃):                          | 106                                |
| Chloride (mg/L):                                   | 80                                 |
| Effluent Flow for Aquatic Life (MGD):              | 10                                 |
| Critical Low Flow [7Q2] (cfs) for intermittent:    | 0                                  |
| Critical Low Flow [7Q2] (cfs) for perennial:       | 0.96                               |
| % Effluent for Chronic Aquatic Life (Mixing Zone): | 94.16                              |
| % Effluent for Acute Aquatic Life (ZID):           | 100                                |
| Effluent Flow for Human Health (MGD):              | 10                                 |
| Harmonic Mean Flow (cfs) for perennial:            | 1.47                               |
| % Effluent for Human Health:                       | 91.323                             |
| Human Health Criterion (select: PWS, FISH, or INC) | FISH                               |
|  |                                    |

### CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

| Stream/River Metal    | Intercept<br>(b) | Slope<br>(m) | Partition<br>Coefficien<br>t (Kp) | Dissolved<br>Fraction<br>(Cd/Ct) | Source  | Water<br>Effect<br>Ratio<br>(WER) | Source  |
|-----------------------|------------------|--------------|-----------------------------------|----------------------------------|---------|-----------------------------------|---------|
| Aluminum              | N/A              | N/A          | N/A                               | 1.00                             | Assumed | 1.00                              | Assumed |
| Arsenic               | 5.68             | -0.73        | 115632.10                         | 0.553                            |         | 1.00                              | Assumed |
| Cadmium               | 6.60             | -1.13        | 441610.32                         | 0.244                            |         | 1.00                              | Assumed |
| Chromium (total)      | 6.52             | -0.93        | 542074.31                         | 0.209                            |         | 1.00                              | Assumed |
| Chromium (trivalent)  | 6.52             | -0.93        | 542074.31                         | 0.209                            |         | 1.00                              | Assumed |
| Chromium (hexavalent) | N/A              | N/A          | N/A                               | 1.00                             | Assumed | 1.00                              | Assumed |
| Copper                | 6.02             | -0.74        | 248100.39                         | 0.365                            |         | 1.00                              | Assumed |
| Lead                  | 6.45             | -0.80        | 594184.84                         | 0.194                            |         | 1.00                              | Assumed |
| Mercury               | N/A              | N/A          | N/A                               | 1.00                             | Assumed | 1.00                              | Assumed |
| Nickel                | 5.69             | -0.57        | 161545.22                         | 0.469                            |         | 1.00                              | Assumed |
| Selenium              | N/A              | N/A          | N/A                               | 1.00                             | Assumed | 1.00                              | Assumed |
| Silver                | 6.38             | -1.03        | 323257.80                         | 0.306                            |         | 1.00                              | Assumed |
| Zinc                  | 6.10             | -0.70        | 322426.98                         | 0.307                            | •       | 1.00                              | Assumed |

### AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

| Parameter                               | FW Acute<br>Criterion<br>(μg/L) | FW<br>Chronic<br>Criterion<br>(μg/L) | WLAa<br>(μg/L) | WLAc<br>(μg/L) | LTAα<br>(μg/L) | LTAc<br>(μg/L) | Daily Avg.<br>(μg/L) | Daily<br>Max.<br>(μg/L) |
|---|---------------------------------|--------------------------------------|----------------|----------------|----------------|----------------|----------------------|-------------------------|
| Aldrin                                  | 3.0                             | N/A                                  | 3.00           | N/A            | 1.72           | N/A            | 2.52                 | 5.34                    |
| Aluminum                                | 991                             | N/A                                  | 991            | N/A            | 568            | N/A            | 834                  | 1765                    |
| Arsenic                                 | 340                             | 150                                  | 615            | 288            | 353            | 222            | 326                  | 690                     |
| Cadmium                                 | 9.1                             | 0.256                                | 37.2           | 1.11           | 21.3           | 0.857          | 1.25                 | 2.66                    |
| Carbaryl                                | 2.0                             | N/A                                  | 2.00           | N/A            | 1.15           | N/A            | 1.68                 | 3.56                    |
| Chlordane                               | 2.4                             | 0.004                                | 2.40           | 0.00425        | 1.38           | 0.00327        | 0.00480              | 0.0101                  |
| Chlorpyrifos                            | 0.083                           | 0.041                                | 0.0830         | 0.0435         | 0.0476         | 0.0335         | 0.0492               | 0.104                   |
| Chromium (trivalent)                    | 598                             | 78                                   | 2865           | 396            | 1642           | 305            | 448                  | 947                     |
| Chromium (hexavalent)                   | 15.7                            | 10.6                                 | 15.7           | 11.3           | 9.00           | 8.67           | 12.7                 | 26.9                    |
| Copper                                  | 15.0                            | 10.0                                 | 41.1           | 28.9           | 23.5           | 22.3           | 32.7                 | 69.2                    |
| Cyanide (free)                          | 45.8                            | 10.7                                 | 45.8           | 11.4           | 26.2           | 8.75           | 12.8                 | 27.2                    |
| 4,4'-DDT                                | 1.1                             | 0.001                                | 1.10           | 0.00106        | 0.630          | 0.000818       | 0.00120              | 0.00254                 |
| Demeton                                 | N/A                             | 0.1                                  | N/A            | 0.106          | N/A            | 0.0818         | 0.120                | 0.254                   |
| Diazinon                                | 0.17                            | 0.17                                 | 0.170          | 0.181          | 0.0974         | 0.139          | 0.143                | 0.302                   |
| Dicofol [Kelthane]                      | 59.3                            | 19.8                                 | 59.3           | 21.0           | 34.0           | 16.2           | 23.8                 | 50.3                    |
| Dieldrin                                | 0.24                            | 0.002                                | 0.240          | 0.00212        | 0.138          | 0.00164        | 0.00240              | 0.00508                 |
| Diuron                                  | 210                             | 70                                   | 210            | 74.3           | 120            | 57.2           | 84.1                 | 178                     |
| Endosulfan I (alpha)                    | 0.22                            | 0.056                                | 0.220          | 0.0595         | 0.126          | 0.0458         | 0.0673               | 0.142                   |
| Endosulfan II ( <i>beta</i> )           | 0.22                            | 0.056                                | 0.220          | 0.0595         | 0.126          | 0.0458         | 0.0673               | 0.142                   |
| Endosulfan sulfate                      | 0.22                            | 0.056                                | 0.220          | 0.0595         | 0.126          | 0.0458         | 0.0673               | 0.142                   |
| Endrin                                  | 0.086                           | 0.002                                | 0.0860         | 0.00212        | 0.0493         | 0.00164        | 0.00240              | 0.00508                 |
| Guthion [Azinphos Methyl]               | N/A                             | 0.01                                 | N/A            | 0.0106         | N/A            | 0.00818        | 0.0120               | 0.0254                  |
| Heptachlor                              | 0.52                            | 0.004                                | 0.520          | 0.00425        | 0.298          | 0.00327        | 0.00480              | 0.0101                  |
| Hexachlorocyclohexane (gamma) [Lindane] | 1.126                           | 0.08                                 | 1.13           | 0.0850         | 0.645          | 0.0654         | 0.0961               | 0.203                   |
| Lead                                    | 69                              | 2.68                                 | 355            | 14.7           | 203            | 11.3           | 16.6                 | 35.1                    |
| Malathion                               | N/A                             | 0.01                                 | N/A            | 0.0106         | N/A            | 0.00818        | 0.0120               | 0.0254                  |
| Mercury                                 | 2.4                             | 1.3                                  | 2.40           | 1.38           | 1.38           | 1.06           | 1.56                 | 3.30                    |
| Methoxychlor                            | N/A                             | 0.03                                 | N/A            | 0.0319         | N/A            | 0.0245         | 0.0360               | 0.0762                  |
| Mirex                                   | N/A                             | 0.001                                | N/A            | 0.00106        | N/A            | 0.000818       | 0.00120              | 0.00254                 |
| Nickel                                  | 492                             | 54.6                                 | 1048           | 124            | 601            | 95.2           | 139                  | 296                     |
| Nonylphenol                             | 28                              | 6.6                                  | 28.0           | 7.01           | 16.0           | 5.40           | 7.93                 | 16.7                    |
| Parathion (ethyl)                       | 0.065                           | 0.013                                | 0.0650         | 0.0138         | 0.0372         | 0.0106         | 0.0156               | 0.0330                  |
| Pentachlorophenol                       | 17.6                            | 13.5                                 | 17.6           | 14.4           | 10.1           | 11.1           | 14.8                 | 31.4                    |
| Phenanthrene                            | 30                              | 30                                   | 30.0           | 31.9           | 17.2           | 24.5           | 25.2                 | 53.4                    |
| Polychlorinated Biphenyls [PCBs]        | 2.0                             | 0.014                                | 2.00           | 0.0149         | 1.15           | 0.0114         | 0.0168               | 0.0356                  |
| Selenium                                | 20                              | 5                                    | 20.0           | 5.31           | 11.5           | 4.09           | 6.01                 | 12.7                    |
| Silver                                  | 0.8                             | N/A                                  | 17.6           | N/A            | 10.1           | N/A            | 14.8                 | 31.3                    |
| Toxaphene                               | 0.78                            | 0.0002                               | 0.780          | 0.000212       | 0.447          | 0.000164       | 0.000240             | 0.00050<br>8            |
| Tributyltin [TBT]                       | 0.13                            | 0.024                                | 0.130          | 0.0255         | 0.0745         | 0.0196         | 0.0288               | 0.0610                  |
| 2,4,5 Trichlorophenol                   | 136                             | 64                                   | 136            | 68.0           | 77.9           | 52.3           | 76.9                 | 162                     |
| Zinc                                    | 123                             | 124                                  | 401            | 429            | 230            | 331            | 337                  | 714                     |

### **HUMAN HEALTH**

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

| Parameter     | Water<br>and Fish<br>Criterion<br>(μg/L) | Fish Only<br>Criterion<br>(μg/L) | Incidental<br>Fish<br>Criterion<br>(μg/L) | WLAh<br>(μg/L) | LTAh<br>(μg/L) | Daily Avg.<br>(μg/L) | Daily<br>Max.<br>(μg/L) |
|---------------|--|----------------------------------|---|----------------|----------------|----------------------|-------------------------|
| Acrylonitrile | 1.0                                      | 115                              | 1150                                      | 126            | 117            | 172                  | 364                     |
|               |  |                                  |   | 0.000012       | 0.000011       | 0.000017             | 0.000036                |
| Aldrin        | 1.146E-05                                | 1.147E-05                        | 1.147E-04                                 | 6              | 7              | 1                    | 3                       |
| Anthracene    | 1109                                     | 1317                             | 13170                                     | 1442           | 1341           | 1971                 | 4171                    |

| Antimony  | 6        | 1071     | 10710    | 1173     | 1091     | 1603     | 3391     |
|---|----------|----------|----------|----------|----------|----------|----------|
| Arsenic   | 10       | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      |
| Barium  | 2000     | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      |
| Benzene   | 5        | 581      | 5810     | 636      | 592      | 869      | 1840     |
| Benzidine                                       | 0.0015   | 0.107    | 1.07     | 0.117    | 0.109    | 0.160    | 0.338    |
| Benzo(a)anthracene                              | 0.024    | 0.025    | 0.25     | 0.0274   | 0.0255   | 0.0374   | 0.0791   |
| Benzo(a)pyrene                                  | 0.0025   | 0.0025   | 0.025    | 0.00274  | 0.00255  | 0.00374  | 0.00791  |
| Bis(chloromethyl)ether                          | 0.0024   | 0.2745   | 2.745    | 0.301    | 0.280    | 0.410    | 0.869    |
| Bis(2-chloroethyl)ether                         | 0.60     | 42.83    | 428.3    | 46.9     | 43.6     | 64.1     | 135      |
| Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl)   |          |          |          |          |          | -        |          |
| phthalate]                                      | 6        | 7.55     | 75.5     | 8.27     | 7.69     | 11.3     | 23.9     |
| Bromodichloromethane [Dichlorobromomethane]     | 10.2     | 275      | 2750     | 301      | 280      | 411      | 870      |
| Bromoform [Tribromomethane]                     | 66.9     | 1060     | 10600    | 1161     | 1079     | 1586     | 3357     |
| Cadmium   | 5        | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      |
| Carbon Tetrachloride                            | 4.5      | 46       | 460      | 50.4     | 46.8     | 68.8     | 145      |
| Chlordane                                       | 0.0025   | 0.0025   | 0.025    | 0.00274  | 0.00255  | 0.00374  | 0.00791  |
| Chlorobenzene                                   | 100      | 2737     | 27370    | 2997     | 2787     | 4097     | 8668     |
| Chlorodibromomethane [Dibromochloromethane]     | 7.5      | 183      | 1830     | 200      | 186      | 273      | 579      |
| Chloroform [Trichloromethane]                   | 70       | 7697     | 76970    | 8428     | 7838     | 11522    | 24377    |
| Chromium (hexavalent)                           | 62       | 502      | 5020     | 550      | 511      | 751      | 1589     |
| Chrysene  | 2.45     | 2.52     | 25.2     | 2.76     | 2.57     | 3.77     | 7.98     |
| Cresols [Methylphenols]                         | 1041     | 9301     | 93010    | 10185    | 9472     | 13923    | 29457    |
| Cyanide (free)                                  | 200      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      |
| 4,4'-DDD  | 0.002    | 0.002    | 0.02     | 0.00219  | 0.00204  | 0.00299  | 0.00633  |
| 4,4'-DDE  | 0.00013  | 0.00013  | 0.0013   | 0.000142 | 0.000132 | 0.000194 | 0.000411 |
| 4,4'-DDT  | 0.0004   | 0.0004   | 0.004    | 0.000438 | 0.000407 | 0.000598 | 0.00126  |
| 2,4'-D  | 70       | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      |
| Danitol [Fenpropathrin]                         | 262      | 473      | 4730     | 518      | 482      | 708      | 1498     |
| 1,2-Dibromoethane [Ethylene Dibromide]          | 0.17     | 4.24     | 42.4     | 4.64     | 4.32     | 6.34     | 13.4     |
| <i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene] | 322      | 595      | 5950     | 652      | 606      | 890      | 1884     |
| o-Dichlorobenzene [1,2-Dichlorobenzene]         | 600      | 3299     | 32990    | 3612     | 3360     | 4938     | 10448    |
| p-Dichlorobenzene [1,4-Dichlorobenzene]         | 75       | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      |
| 3,3'-Dichlorobenzidine                          | 0.79     | 2.24     | 22.4     | 2.45     | 2.28     | 3.35     | 7.09     |
| 1,2-Dichloroethane                              | 5        | 364      | 3640     | 399      | 371      | 544      | 1152     |
| 1,1-Dichloroethylene [1,1-Dichloroethene]       | 7        | 55114    | 551140   | 60350    | 56126    | 82504    | 174551   |
| Dichloromethane [Methylene Chloride]            | 5        | 13333    | 133330   | 14600    | 13578    | 19959    | 42226    |
| 1,2-Dichloropropane                             | 5        | 259      | 2590     | 284      | 264      | 387      | 820      |
| 1,3-Dichloropropene [1,3-Dichloropropylene]     | 2.8      | 119      | 1190     | 130      | 121      | 178      | 376      |
| Dicofol [Kelthane]                              | 0.30     | 0.30     | 3        | 0.329    | 0.306    | 0.449    | 0.950    |
|   |          |          |          | 0.000021 | 0.000020 | 0.000029 | 0.000063 |
| Dieldrin  | 2.0E-05  | 2.0E-05  | 2.0E-04  | 9        | 4        | 9        | 3        |
| 2,4-Dimethylphenol                              | 444      | 8436     | 84360    | 9237     | 8591     | 12628    | 26717    |
| Di-n-Butyl Phthalate                            | 88.9     | 92.4     | 924      | 101      | 94.1     | 138      | 292      |
| Dioxins/Furans [TCDD Equivalents]               | 7.80E-08 | 7.97E-08 | 7.97E-07 | 8.73E-08 | 8.12E-08 | 1.19E-07 | 2.52E-07 |
| Endrin  | 0.02     | 0.02     | 0.2      | 0.0219   | 0.0204   | 0.0299   | 0.0633   |
| Epichlorohydrin                                 | 53.5     | 2013     | 20130    | 2204     | 2050     | 3013     | 6375     |
| Ethylbenzene                                    | 700      | 1867     | 18670    | 2044     | 1901     | 2794     | 5912     |
| Ethylene Glycol                                 | 46744    | 1.68E+07 | 1.68E+08 | 18396152 | 17108421 | 25149379 | 53207190 |
| Fluoride  | 4000     | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      |
| Heptachlor                                      | 8.0E-05  | 0.0001   | 0.001    | 0.000110 | 0.000102 | 0.000149 | 0.000316 |
| Heptachlor Epoxide                              | 0.00029  | 0.00029  | 0.0029   | 0.000318 | 0.000295 | 0.000434 | 0.000918 |
| Hexachlorobenzene                               | 0.00068  | 0.00068  | 0.0068   | 0.000745 | 0.000692 | 0.00101  | 0.00215  |
| Hexachlorobutadiene                             | 0.21     | 0.22     | 2.2      | 0.241    | 0.224    | 0.329    | 0.696    |
| Hexachlorocyclohexane (alpha)                   | 0.0078   | 0.0084   | 0.084    | 0.00920  | 0.00855  | 0.0125   | 0.0266   |
| Hexachlorocyclohexane (beta)                    | 0.15     | 0.26     | 2.6      | 0.285    | 0.265    | 0.389    | 0.823    |
| Hexachlorocyclohexane (gamma) [Lindane]         | 0.2      | 0.341    | 3.41     | 0.373    | 0.347    | 0.510    | 1.07     |

| Hexachlorocyclopentadiene                 | 10.7    | 11.6     | 116      | 12.7     | 11.8     | 17.3     | 36.7    |
|---|---------|----------|----------|----------|----------|----------|---------|
| Hexachloroethane                          | 1.84    | 2.33     | 23.3     | 2.55     | 2.37     | 3.48     | 7.37    |
| Hexachlorophene                           | 2.05    | 2.90     | 29       | 3.18     | 2.95     | 4.34     | 9.18    |
| 4,4'-Isopropylidenediphenol [Bisphenol A] | 1092    | 15982    | 159820   | 17500    | 16275    | 23924    | 50616   |
| Lead                                      | 1.15    | 3.83     | 38.3     | 21.6     | 20.1     | 29.5     | 62.5    |
| Mercury                                   | 0.0122  | 0.0122   | 0.122    | 0.0134   | 0.0124   | 0.0182   | 0.0386  |
| Methoxychlor                              | 2.92    | 3.0      | 30       | 3.29     | 3.06     | 4.49     | 9.50    |
| Methyl Ethyl Ketone                       | 13865   | 9.92E+05 | 9.92E+06 | 1086249  | 1010212  | 1485010  | 3141757 |
| Methyl tert-butyl ether [MTBE]            | 15      | 10482    | 104820   | 11478    | 10674    | 15691    | 33197   |
| Nickel                                    | 332     | 1140     | 11400    | 2660     | 2474     | 3636     | 7693    |
| Nitrate-Nitrogen (as Total Nitrogen)      | 10000   | N/A      | N/A      | N/A      | N/A      | N/A      | N/A     |
| Nitrobenzene                              | 45.7    | 1873     | 18730    | 2051     | 1907     | 2803     | 5931    |
| N-Nitrosodiethylamine                     | 0.0037  | 2.1      | 21       | 2.30     | 2.14     | 3.14     | 6.65    |
| N-Nitroso-di- <i>n</i> -Butylamine        | 0.119   | 4.2      | 42       | 4.60     | 4.28     | 6.28     | 13.3    |
| Pentachlorobenzene                        | 0.348   | 0.355    | 3.55     | 0.389    | 0.362    | 0.531    | 1.12    |
| Pentachlorophenol                         | 0.22    | 0.29     | 2.9      | 0.318    | 0.295    | 0.434    | 0.918   |
| Polychlorinated Biphenyls [PCBs]          | 6.4E-04 | 6.4E-04  | 6.40E-03 | 0.000701 | 0.000652 | 0.000958 | 0.00202 |
| Pyridine                                  | 23      | 947      | 9470     | 1037     | 964      | 1417     | 2999    |
| Selenium                                  | 50      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A     |
| 1,2,4,5-Tetrachlorobenzene                | 0.23    | 0.24     | 2.4      | 0.263    | 0.244    | 0.359    | 0.760   |
| 1,1,2,2-Tetrachloroethane                 | 1.64    | 26.35    | 263.5    | 28.9     | 26.8     | 39.4     | 83.4    |
| Tetrachloroethylene [Tetrachloroethylene] | 5       | 280      | 2800     | 307      | 285      | 419      | 886     |
| Thallium                                  | 0.12    | 0.23     | 2.3      | 0.252    | 0.234    | 0.344    | 0.728   |
| Toluene                                   | 1000    | N/A      | N/A      | N/A      | N/A      | N/A      | N/A     |
| Toxaphene                                 | 0.011   | 0.011    | 0.11     | 0.0120   | 0.0112   | 0.0164   | 0.0348  |
| 2,4,5-TP [Silvex]                         | 50      | 369      | 3690     | 404      | 376      | 552      | 1168    |
| 1,1,1-Trichloroethane                     | 200     | 784354   | 7843540  | 858875   | 798753   | 1174167  | 2484123 |
| 1,1,2-Trichloroethane                     | 5       | 166      | 1660     | 182      | 169      | 248      | 525     |
| Trichloroethylene [Trichloroethene]       | 5       | 71.9     | 719      | 78.7     | 73.2     | 107      | 227     |
| 2,4,5-Trichlorophenol                     | 1039    | 1867     | 18670    | 2044     | 1901     | 2794     | 5912    |
| TTHM [Sum of Total Trihalomethanes]       | 80      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A     |
| Vinyl Chloride                            | 0.23    | 16.5     | 165      | 18.1     | 16.8     | 24.7     | 52.2    |

### CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

| Aquatic Life          | 70% of<br>Daily Avg. | 85% of<br>Daily Avg. |
|-----------------------|----------------------|----------------------|
| Parameter             | (μg/L)               | (μg/L)               |
| Aldrin                | 1.76                 | 2.14                 |
| Aluminum              | 584                  | 709                  |
| Arsenic               | 228                  | 277                  |
| Cadmium               | 0.881                | 1.07                 |
| Carbaryl              | 1.17                 | 1.43                 |
| Chlordane             | 0.00336              | 0.00408              |
| Chlorpyrifos          | 0.0345               | 0.0418               |
| Chromium (trivalent)  | 313                  | 380                  |
| Chromium (hexavalent) | 8.91                 | 10.8                 |
| Copper                | 22.9                 | 27.8                 |
| Cyanide (free)        | 9.00                 | 10.9                 |
| 4,4'-DDT              | 0.000841             | 0.00102              |
| Demeton               | 0.0841               | 0.102                |
| Diazinon              | 0.100                | 0.121                |
| Dicofol [Kelthane]    | 16.6                 | 20.2                 |
| Dieldrin              | 0.00168              | 0.00204              |

| Endosulfan I (beta)         0.0471         0.0572           Endosulfan II (beta)         0.0471         0.0572           Endosulfan sulfate         0.0471         0.0572           Endrin         0.00168         0.00204           Guthion [Azinphos Methyl]         0.00841         0.0102           Heptachlor         0.00336         0.00408           Hexachlorocyclohexane (gamma) [Lindane]         0.0673         0.0817           Lead         11.6         14.1           Malathion         0.00841         0.0102           Mercury         1.09         1.32           Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.00204 <th>Diuron</th> <th>58.9</th> <th>71.5</th> | Diuron                                  | 58.9     | 71.5     |
|---|---|----------|----------|
| Endosulfan sulfate         0.0471         0.0572           Endrin         0.00168         0.00204           Guthion [Azinphos Methyl]         0.00841         0.0102           Heptachlor         0.00336         0.00408           Hexachlorocyclohexane (gamma) [Lindane]         0.0673         0.0817           Lead         11.6         14.1           Malathion         0.00841         0.0102           Mercury         1.09         1.32           Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Endosulfan I (alpha)                    | 0.0471   | 0.0572   |
| Endrin         0.00168         0.00204           Guthion [Azinphos Methyl]         0.00841         0.0102           Heptachlor         0.00336         0.00408           Hexachlorocyclohexane (gamma) [Lindane]         0.0673         0.0817           Lead         11.6         14.1           Malathion         0.00841         0.0102           Mercury         1.09         1.32           Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3  | Endosulfan II (beta)                    | 0.0471   | 0.0572   |
| Guthion [Azinphos Methyl]         0.00841         0.0102           Heptachlor         0.00336         0.00408           Hexachlorocyclohexane (gamma) [Lindane]         0.0673         0.0817           Lead         11.6         14.1           Malathion         0.00841         0.0102           Mercury         1.09         1.32           Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Endosulfan sulfate                      | 0.0471   | 0.0572   |
| Heptachlor         0.00336         0.00408           Hexachlorocyclohexane (gamma) [Lindane]         0.0673         0.0817           Lead         11.6         14.1           Malathion         0.00841         0.0102           Mercury         1.09         1.32           Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3  | Endrin                                  | 0.00168  | 0.00204  |
| Hexachlorocyclohexane (gamma) [Lindane]         0.0673         0.0817           Lead         11.6         14.1           Malathion         0.00841         0.0102           Mercury         1.09         1.32           Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Guthion [Azinphos Methyl]               | 0.00841  | 0.0102   |
| Lead         11.6         14.1           Malathion         0.00841         0.0102           Mercury         1.09         1.32           Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Heptachlor                              | 0.00336  | 0.00408  |
| Malathion         0.00841         0.0102           Mercury         1.09         1.32           Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3  | Hexachlorocyclohexane (gamma) [Lindane] | 0.0673   | 0.0817   |
| Mercury         1.09         1.32           Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Lead                                    | 11.6     | 14.1     |
| Methoxychlor         0.0252         0.0306           Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Malathion                               | 0.00841  | 0.0102   |
| Mirex         0.000841         0.00102           Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3  | Mercury                                 | 1.09     | 1.32     |
| Nickel         97.9         118           Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Methoxychlor                            | 0.0252   | 0.0306   |
| Nonylphenol         5.55         6.74           Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Mirex                                   | 0.000841 | 0.00102  |
| Parathion (ethyl)         0.0109         0.0132           Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Nickel                                  | 97.9     | 118      |
| Pentachlorophenol         10.3         12.6           Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Nonylphenol                             | 5.55     | 6.74     |
| Phenanthrene         17.6         21.4           Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Parathion (ethyl)                       | 0.0109   | 0.0132   |
| Polychlorinated Biphenyls [PCBs]         0.0117         0.0143           Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3  | Pentachlorophenol                       | 10.3     | 12.6     |
| Selenium         4.20         5.10           Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Phenanthrene                            | 17.6     | 21.4     |
| Silver         10.3         12.5           Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3  | Polychlorinated Biphenyls [PCBs]        | 0.0117   | 0.0143   |
| Toxaphene         0.000168         0.000204           Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Selenium                                | 4.20     | 5.10     |
| Tributyltin [TBT]         0.0201         0.0245           2,4,5 Trichlorophenol         53.8         65.3   | Silver                                  | 10.3     | 12.5     |
| 2,4,5 Trichlorophenol 53.8 65.3   | Toxaphene                               | 0.000168 | 0.000204 |
| •   | Tributyltin [TBT]                       | 0.0201   | 0.0245   |
| Zinc 236 287  | 2,4,5 Trichlorophenol                   | 53.8     | 65.3     |
|   | Zinc                                    | 236      | 287      |

| Human Health   | 70% of<br>Daily Avg. | 85% of<br>Daily Avg. |
|--|----------------------|----------------------|
| Parameter  | (μg/L)               | (μg/L)               |
| Acrylonitrile  | 120                  | 146                  |
|  | 0.000012             | 0.000014             |
| Aldrin   | 0                    | 5                    |
| Anthracene   | 1380                 | 1675                 |
| Antimony   | 1122                 | 1362                 |
| Arsenic  | N/A                  | N/A                  |
| Barium   | N/A                  | N/A                  |
| Benzene  | 608                  | 739                  |
| Benzidine  | 0.112                | 0.136                |
| Benzo(a)anthracene                                       | 0.0261               | 0.0318               |
| Benzo(a)pyrene   | 0.00261              | 0.00318              |
| Bis(chloromethyl)ether                                   | 0.287                | 0.349                |
| Bis(2-chloroethyl)ether                                  | 44.8                 | 54.4                 |
| Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate] | 7.91                 | 9.60                 |
| Bromodichloromethane [Dichlorobromomethane]              | 288                  | 349                  |
| Bromoform [Tribromomethane]                              | 1110                 | 1348                 |
| Cadmium  | N/A                  | N/A                  |
| Carbon Tetrachloride                                     | 48.2                 | 58.5                 |
| Chlordane  | 0.00261              | 0.00318              |
| Chlorobenzene  | 2868                 | 3482                 |
| Chlorodibromomethane [Dibromochloromethane]              | 191                  | 232                  |
| Chloroform [Trichloromethane]                            | 8065                 | 9793                 |
| Chromium (hexavalent)                                    | 526                  | 638                  |
| Chrysene   | 2.64                 | 3.20                 |
| Cresols [Methylphenols]                                  | 9746                 | 11834                |

| Cyanide (free)                              | N/A      | N/A      |
|---|----------|----------|
| 4,4'-DDD                                    | 0.00209  | 0.00254  |
| 4,4'-DDE                                    | 0.000136 | 0.000165 |
| 4,4'-DDT                                    | 0.000419 | 0.000508 |
| 2,4'-D                                      | N/A      | N/A      |
| Danitol [Fenpropathrin]                     | 495      | 601      |
| 1,2-Dibromoethane [Ethylene Dibromide]      | 4.44     | 5.39     |
| m-Dichlorobenzene [1,3-Dichlorobenzene]     | 623      | 757      |
| o-Dichlorobenzene [1,2-Dichlorobenzene]     | 3456     | 4197     |
| p-Dichlorobenzene [1,4-Dichlorobenzene]     | N/A      | N/A      |
| 3.3'-Dichlorobenzidine                      | 2.34     | 2.85     |
| 1.2-Dichloroethane                          | 381      | 463      |
| 1,1-Dichloroethylene [1,1-Dichloroethene]   | 57753    | 70129    |
| Dichloromethane [Methylene Chloride]        | 13971    | 16965    |
| 1,2-Dichloropropane                         | 271      | 329      |
| 1,3-Dichloropropene [1,3-Dichloropropylene] | 124      | 151      |
| Dicofol [Kelthane]                          | 0.314    | 0.381    |
| Dicoror [retaining]                         | 0.000020 | 0.000025 |
| Dieldrin                                    | 9        | 4        |
| 2,4-Dimethylphenol                          | 8840     | 10734    |
| Di-n-Butyl Phthalate                        | 96.8     | 117      |
| Dioxins/Furans [TCDD Equivalents]           | 8.35E-08 | 1.01E-07 |
| Endrin                                      | 0.0209   | 0.0254   |
| Epichlorohydrin                             | 2109     | 2561     |
| Ethylbenzene                                | 1956     | 2375     |
| Ethylene Glycol                             | 17604565 | 21376972 |
| Fluoride                                    | N/A      | N/A      |
| Heptachlor                                  | 0.000104 | 0.000127 |
| Heptachlor Epoxide                          | 0.000303 | 0.000369 |
| Hexachlorobenzene                           | 0.000712 | 0.000865 |
| Hexachlorobutadiene                         | 0.230    | 0.279    |
| Hexachlorocyclohexane (alpha)               | 0.00880  | 0.0106   |
| Hexachlorocyclohexane (beta)                | 0.272    | 0.330    |
| Hexachlorocyclohexane (gamma) [Lindane]     | 0.357    | 0.433    |
| Hexachlorocyclopentadiene                   | 12.1     | 14.7     |
| Hexachloroethane                            | 2.44     | 2.96     |
| Hexachlorophene                             | 3.03     | 3.69     |
| 4,4'-Isopropylidenediphenol [Bisphenol A]   | 16747    | 20336    |
| Lead  | 20.7     | 25.1     |
| Mercury                                     | 0.0127   | 0.0155   |
| Methoxychlor                                | 3.14     | 3.81     |
| Methyl Ethyl Ketone                         | 1039507  | 1262259  |
| Methyl tert-butyl ether [MTBE]              | 10983    | 13337    |
| Nickel                                      | 2545     | 3090     |
| Nitrate-Nitrogen (as Total Nitrogen)        | N/A      | N/A      |
| Nitrobenzene                                | 1962     | 2383     |
| N-Nitrosodiethylamine                       | 2.20     | 2.67     |
| N-Nitroso-di- <i>n</i> -Butylamine          | 4.40     | 5.34     |
| Pentachlorobenzene                          | 0.372    | 0.451    |
| Pentachlorophenol                           | 0.303    | 0.369    |
| Polychlorinated Biphenyls [PCBs]            | 0.000670 | 0.000814 |
| Pyridine                                    | 992      | 1204     |
| Selenium                                    | N/A      | N/A      |
| 1,2,4,5-Tetrachlorobenzene                  | 0.251    | 0.305    |
| 1,1,2,2-Tetrachloroethane                   | 27.6     | 33.5     |
| Tetrachloroethylene [Tetrachloroethylene]   | 293      | 356      |
| <u> </u>                                    |          |          |

| Toluene         N/A         N/A           Toxaphene         0.0115         0.0139           2,4,5-TP [Silvex]         386         469           1,1,1-Trichloroethane         821917         998042           1,1,2-Trichloroethane         173         211           Trichloroethylene [Trichloroethene]         75.3         91.4           2,4,5-Trichlorophenol         1956         2375           TTHM [Sum of Total Trihalomethanes]         N/A         N/A           Vinyl Chloride         17.2         20.9 | Thallium                            | 0.241  | 0.292  |
|--|-------------------------------------|--------|--------|
| 2,4,5-TP [Silvex]       386       469         1,1,1-Trichloroethane       821917       998042         1,1,2-Trichloroethane       173       211         Trichloroethylene [Trichloroethene]       75.3       91.4         2,4,5-Trichlorophenol       1956       2375         TTHM [Sum of Total Trihalomethanes]       N/A       N/A  | Toluene                             | N/A    | N/A    |
| 1,1,1-Trichloroethane         821917         998042           1,1,2-Trichloroethane         173         211           Trichloroethylene [Trichloroethene]         75.3         91.4           2,4,5-Trichlorophenol         1956         2375           TTHM [Sum of Total Trihalomethanes]         N/A         N/A  | Toxaphene                           | 0.0115 | 0.0139 |
| 1,1,2-Trichloroethane         173         211           Trichloroethylene [Trichloroethene]         75.3         91.4           2,4,5-Trichlorophenol         1956         2375           TTHM [Sum of Total Trihalomethanes]         N/A         N/A  | 2,4,5-TP [Silvex]                   | 386    | 469    |
| Trichloroethylene [Trichloroethene]75.391.42,4,5-Trichlorophenol19562375TTHM [Sum of Total Trihalomethanes]N/AN/A  | 1,1,1-Trichloroethane               | 821917 | 998042 |
| 2,4,5-Trichlorophenol19562375TTHM [Sum of Total Trihalomethanes]N/AN/A   | 1,1,2-Trichloroethane               | 173    | 211    |
| TTHM [Sum of Total Trihalomethanes] N/A N/A  | Trichloroethylene [Trichloroethene] | 75.3   | 91.4   |
|  | 2,4,5-Trichlorophenol               | 1956   | 2375   |
| Vinyl Chloride 17.2 20.9   | TTHM [Sum of Total Trihalomethanes] | N/A    | N/A    |
|  | Vinyl Chloride                      | 17.2   | 20.9   |

#### **TEXTOX MENU #4 - LAKE OR RESERVOIR**

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," TCEQ, June 2010

#### PERMIT INFORMATION

| Permittee Name:  | City of Denton   |
|------------------|------------------|
| TPDES Permit No: | WQ0014416001     |
| Outfall No:      | 001              |
| Prepared by:     | Abdur Rahim      |
| Date:            | January 21, 2025 |

### DISCHARGE INFORMATION

| Receiving Waterbody:                               | Lake Lewisville |
|--|-----------------|
| Segment No.:                                       | 0823            |
| TSS (mg/L):  | 7               |
| pH (Standard Units):                               | 7.7             |
| Hardness (mg/L as CaCO₃):                          | 106             |
| Chloride (mg/L):                                   | 80              |
| Effluent Flow for Aquatic Life (MGD):              | 10              |
| Effluent Flow for Human Health (MGD):              | 10              |
| % Effluent for Human Health:                       | 15              |
| Human Health Criterion (select: PWS, FISH, or INC) | PWS             |
|  |                 |

### CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

| Lake/Reservoir Metal  | Intercept<br>(b) | Slope<br>(m) | Partition<br>Coefficient<br>(Kp) | Dissolved<br>Fraction<br>(Cd/Ct) | Source  | Water<br>Effect<br>Ratio<br>(WER) | Source  |
|-----------------------|------------------|--------------|----------------------------------|----------------------------------|---------|-----------------------------------|---------|
| Aluminum              | N/A              | N/A          | N/A                              | 1.00                             | Assumed | 1.00                              | Assumed |
| Arsenic               | 5.68             | -0.73        | 115632.10                        | 0.553                            |         | 1.00                              | Assumed |
| Cadmium               | 6.55             | -0.92        | 592256.46                        | 0.194                            |         | 1.00                              | Assumed |
| Chromium (total)      | 6.34             | -0.27        | 1293670.07                       | 0.099                            |         | 1.00                              | Assumed |
| Chromium (trivalent)  | 6.34             | -0.27        | 1293670.07                       | 0.099                            |         | 1.00                              | Assumed |
| Chromium (hexavalent) | N/A              | N/A          | N/A                              | 1.00                             | Assumed | 1.00                              | Assumed |
| Copper                | 6.45             | -0.90        | 489115.88                        | 0.226                            |         | 1.00                              | Assumed |
| Lead                  | 6.31             | -0.53        | 727944.11                        | 0.164                            |         | 1.00                              | Assumed |
| Mercury               | N/A              | N/A          | N/A                              | 1.00                             | Assumed | 1.00                              | Assumed |
| Nickel                | 6.34             | -0.76        | 498569.25                        | 0.223                            |         | 1.00                              | Assumed |
| Selenium              | N/A              | N/A          | N/A                              | 1.00                             | Assumed | 1.00                              | Assumed |
| Silver                | 6.38             | -1.03        | 323257.80                        | 0.306                            |         | 1.00                              | Assumed |
| Zinc                  | 6.52             | -0.68        | 881725.36                        | 0.139                            | •       | 1.00                              | Assumed |

#### **HUMAN HEALTH**

#### CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

| Parameter     | Water and<br>Fish<br>Criterion<br>(μg/L) | Fish Only<br>Criterion<br>(μg/L) | Incidental<br>Fish<br>Criterion<br>(μg/L) | WLAh<br>(μg/L) | LTAh<br>(μg/L) | Daily Avg.<br>(μg/L) | Daily Max.<br>(μg/L) |
|---------------|--|----------------------------------|---|----------------|----------------|----------------------|----------------------|
| Acrylonitrile | 1.0                                      | 115                              | 1150                                      | 6.67           | 6.20           | 9.11                 | 19.2                 |
| Aldrin        | 1.146E-05                                | 1.147E-05                        | 1.147E-04                                 | 0.0000764      | 0.0000711      | 0.000104             | 0.000220             |
| Anthracene    | 1109                                     | 1317                             | 13170                                     | 7393           | 6876           | 10107                | 21383                |
| Antimony      | 6  | 1071                             | 10710                                     | 40.0           | 37.2           | 54.6                 | 115                  |
| Arsenic       | 10                                       | N/A                              | N/A                                       | 121            | 112            | 164                  | 348                  |

| Barium  | 2000           | N/A            | N/A              | 13333           | 12400           | 18228            | 38564       |
|---|----------------|----------------|------------------|-----------------|-----------------|------------------|-------------|
| Benzene   | 5              | 581            | 5810             | 33.3            | 31.0            | 45.5             | 96.4        |
| Benzidine   | 0.0015         | 0.107          | 1.07             | 0.0100          | 0.00930         | 0.0136           | 0.0289      |
| Benzo(α)anthracene  | 0.024          | 0.025          | 0.25             | 0.160           | 0.149           | 0.218            | 0.462       |
| Benzo(a)pyrene  | 0.0025         | 0.0025         | 0.025            | 0.0167          | 0.0155          | 0.0227           | 0.0482      |
| Bis(chloromethyl)ether  | 0.0024         | 0.2745         | 2.745            | 0.0160          | 0.0149          | 0.0218           | 0.0462      |
| Bis(2-chloroethyl)ether   | 0.60           | 42.83          | 428.3            | 4.00            | 3.72            | 5.46             | 11.5        |
| Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]                        | 6              | 7.55           | 75.5             | 40.0            | 37.2            | 54.6             | 115         |
| Bromodichloromethane [Dichlorobromomethane]                                     | 10.2           | 275            | 2750             | 68.0            | 63.2            | 92.9             | 196         |
| Bromoform [Tribromomethane]   | 66.9           | 1060           | 10600            | 446             | 415             | 609              | 1289        |
| Cadmium   | 5              | N/A            | N/A              | 172             | 160             | 234              | 496         |
| Carbon Tetrachloride  | 4.5            | 46             | 460              | 30.0            | 27.9            | 41.0             | 86.7        |
| Chlordane   | 0.0025         | 0.0025         | 0.025            | 0.0167          | 0.0155          | 0.0227           | 0.0482      |
| Chlorobenzene   | 100            | 2737           | 27370            | 667             | 620             | 911              | 1928        |
| Chlorodibromomethane [Dibromochloromethane]                                     | 7.5            | 183            | 1830             | 50.0            | 46.5            | 68.3             | 144         |
| Chloroform [Trichloromethane]   | 70             | 7697           | 76970            | 467             | 434             | 637              | 1349        |
| Chromium (hexavalent)   | 62             | 502            | 5020             | 413             | 384             | 565              | 1195        |
| Chrysene  | 2.45           | 2.52           | 25.2             | 16.3            | 15.2            | 22.3             | 47.2        |
| Cresols [Methylphenols]   | 1041           | 9301           | 93010            | 6940            | 6454            | 9487             | 20072       |
| Cyanide (free)  | 200            | N/A            | N/A              | 1333            | 1240            | 1822             | 3856        |
| 4,4'-DDD  | 0.002          | 0.002          | 0.02             | 0.0133          | 0.0124          | 0.0182           | 0.0385      |
| 4,4'-DDE  | 0.00013        | 0.00013        | 0.0013           | 0.000867        | 0.000806        | 0.00118          | 0.00250     |
| 4,4'-DDT  | 0.00013        | 0.00013        | 0.004            | 0.00267         | 0.00248         | 0.00364          | 0.00230     |
| 2,4'-D  | 70             | N/A            | N/A              | 467             | 434             | 637              | 1349        |
| Danitol [Fenpropathrin]   | 262            | 473            | 4730             | 1747            | 1624            | 2387             | 5051        |
| 1,2-Dibromoethane [Ethylene Dibromide]  | 0.17           | 4.24           | 42.4             | 1.13            | 1.05            | 1.54             | 3.27        |
| m-Dichlorobenzene [1,3-Dichlorobenzene]   | 322            | 595            | 5950             | 2147            | 1996            | 2934             | 6208        |
| o-Dichlorobenzene [1,2-Dichlorobenzene]   | 600            | 3299           | 32990            | 4000            | 3720            | 5468             | 11569       |
| p-Dichlorobenzene [1,4-Dichlorobenzene]   | 75             | N/A            | N/A              | 500             | 465             | 683              | 1446        |
| 3,3'-Dichlorobenzidine  | 0.79           | 2.24           | 22.4             | 5.27            | 4.90            | 7.20             | 15.2        |
|   | 5              | 364            |                  |                 | 31.0            |                  | 96.4        |
| 1,2-Dichloroethane  |                |                | 3640             | 33.3<br>46.7    | 43.4            | 45.5<br>63.7     |             |
| 1,1-Dichloroethylene [1,1-Dichloroethene]  Dichloromethane [Methylene Chloride] | 5              | 55114<br>13333 | 551140<br>133330 | 33.3            | 31.0            | 45.5             | 134<br>96.4 |
|   | 5              |                |                  |                 |                 |                  | 96.4        |
| 1,2-Dichloropropane  1,3-Dichloropropylene                                      |                | 259            | 2590             | 33.3            | 31.0            | 45.5             |             |
|   | 2.8<br>0.30    | 119            | 1190<br>3        | 18.7            | 17.4<br>1.86    | 25.5             | 53.9        |
| Dicofol [Kelthane]  |                | 0.30           |                  | 2.00            |                 | 2.73             | 5.78        |
| Dieldrin  2.4 Dimethylphonel  | 2.0E-05<br>444 | 2.0E-05        | 2.0E-04          | 0.000133        | 0.000124        | 0.000182<br>4046 | 0.000385    |
| 2,4-Dimethylphenol Di- <i>n</i> -Butyl Phthalate                                |                | 8436           | 84360            | 2960            | 2753            |                  | 8561        |
| •   | 88.9           | 92.4           | 924              | 593<br>5.20E-07 | 551<br>4.84E-07 | 810              | 1714        |
| Dioxins/Furans [TCDD Equivalents]   | 7.80E-08       | 7.97E-08       | 7.97E-07         |                 |                 | 7.10E-07         | 0.0000015   |
| Endrin  | 0.02           | 0.02           | 0.2              | 0.133           | 0.124           | 0.182            | 0.385       |
| Epichlorohydrin   | 53.5           | 2013           | 20130            | 357             | 332             | 487              | 1031        |
| Ethylbenzene  | 700            | 1867           | 18670            | 4667            | 4340            | 6379             | 13497       |
| Ethylene Glycol   | 46744          | 1.68E+07       | 1.68E+08         | 311627          | 289813          | 426024           | 901317      |
| Fluoride  | 4000           | N/A            | N/A              | 26667           | 24800           | 36456            | 77128       |
| Heptachlor  | 8.0E-05        | 0.0001         | 0.001            | 0.000533        | 0.000496        | 0.000729         | 0.00154     |
| Heptachlor Epoxide  | 0.00029        | 0.00029        | 0.0029           | 0.00193         | 0.00180         | 0.00264          | 0.00559     |
| Hexachlorobenzene   | 0.00068        | 0.00068        | 0.0068           | 0.00453         | 0.00422         | 0.00619          | 0.0131      |
| Hexachlorobutadiene   | 0.21           | 0.22           | 2.2              | 1.40            | 1.30            | 1.91             | 4.04        |
| Hexachlorocyclohexane (alpha)   | 0.0078         | 0.0084         | 0.084            | 0.0520          | 0.0484          | 0.0710           | 0.150       |
| Hexachlorocyclohexane (beta)  | 0.15           | 0.26           | 2.6              | 1.00            | 0.930           | 1.36             | 2.89        |
| Hexachlorocyclohexane (gamma) [Lindane]   | 0.2            | 0.341          | 3.41             | 1.33            | 1.24            | 1.82             | 3.85        |
| Hexachlorocyclopentadiene   | 10.7           | 11.6           | 116              | 71.3            | 66.3            | 97.5             | 206         |
| Hexachloroethane  | 1.84           | 2.33           | 23.3             | 12.3            | 11.4            | 16.7             | 35.4        |
| Hexachlorophene   | 2.05           | 2.90           | 29               | 13.7            | 12.7            | 18.6             | 39.5        |

| 4,4'-Isopropylidenediphenol [Bisphenol A] | 1092    | 15982    | 159820   | 7280    | 6770    | 9952    | 21055  |
|---|---------|----------|----------|---------|---------|---------|--------|
| Lead                                      | 1.15    | 3.83     | 38.3     | 46.7    | 43.5    | 63.8    | 135    |
| Mercury                                   | 0.0122  | 0.0122   | 0.122    | 0.0813  | 0.0756  | 0.111   | 0.235  |
| Methoxychlor                              | 2.92    | 3.0      | 30       | 19.5    | 18.1    | 26.6    | 56.3   |
| Methyl Ethyl Ketone                       | 13865   | 9.92E+05 | 9.92E+06 | 92433   | 85963   | 126365  | 267344 |
| Methyl tert-butyl ether [MTBE]            | 15      | 10482    | 104820   | 100     | 93.0    | 136     | 289    |
| Nickel                                    | 332     | 1140     | 11400    | 9938    | 9242    | 13586   | 28743  |
| Nitrate-Nitrogen (as Total Nitrogen)      | 10000   | N/A      | N/A      | 66667   | 62000   | 91140   | 192820 |
| Nitrobenzene                              | 45.7    | 1873     | 18730    | 305     | 283     | 416     | 881    |
| N-Nitrosodiethylamine                     | 0.0037  | 2.1      | 21       | 0.0247  | 0.0229  | 0.0337  | 0.0713 |
| N-Nitroso-di- <i>n</i> -Butylamine        | 0.119   | 4.2      | 42       | 0.793   | 0.738   | 1.08    | 2.29   |
| Pentachlorobenzene                        | 0.348   | 0.355    | 3.55     | 2.32    | 2.16    | 3.17    | 6.71   |
| Pentachlorophenol                         | 0.22    | 0.29     | 2.9      | 1.47    | 1.36    | 2.00    | 4.24   |
| Polychlorinated Biphenyls [PCBs]          | 6.4E-04 | 6.4E-04  | 6.40E-03 | 0.00427 | 0.00397 | 0.00583 | 0.0123 |
| Pyridine                                  | 23      | 947      | 9470     | 153     | 143     | 209     | 443    |
| Selenium                                  | 50      | N/A      | N/A      | 333     | 310     | 455     | 964    |
| 1,2,4,5-Tetrachlorobenzene                | 0.23    | 0.24     | 2.4      | 1.53    | 1.43    | 2.09    | 4.43   |
| 1,1,2,2-Tetrachloroethane                 | 1.64    | 26.35    | 263.5    | 10.9    | 10.2    | 14.9    | 31.6   |
| Tetrachloroethylene [Tetrachloroethylene] | 5       | 280      | 2800     | 33.3    | 31.0    | 45.5    | 96.4   |
| Thallium                                  | 0.12    | 0.23     | 2.3      | 0.800   | 0.744   | 1.09    | 2.31   |
| Toluene                                   | 1000    | N/A      | N/A      | 6667    | 6200    | 9114    | 19282  |
| Toxaphene                                 | 0.011   | 0.011    | 0.11     | 0.0733  | 0.0682  | 0.100   | 0.212  |
| 2,4,5-TP [Silvex]                         | 50      | 369      | 3690     | 333     | 310     | 455     | 964    |
| 1,1,1-Trichloroethane                     | 200     | 784354   | 7843540  | 1333    | 1240    | 1822    | 3856   |
| 1,1,2-Trichloroethane                     | 5       | 166      | 1660     | 33.3    | 31.0    | 45.5    | 96.4   |
| Trichloroethylene [Trichloroethene]       | 5       | 71.9     | 719      | 33.3    | 31.0    | 45.5    | 96.4   |
| 2,4,5-Trichlorophenol                     | 1039    | 1867     | 18670    | 6927    | 6442    | 9469    | 20033  |
| TTHM [Sum of Total Trihalomethanes]       | 80      | N/A      | N/A      | 533     | 496     | 729     | 1542   |
| Vinyl Chloride                            | 0.23    | 16.5     | 165      | 1.53    | 1.43    | 2.09    | 4.43   |

### CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

| Human Health   | 70% of<br>Daily Ava. | 85% of<br>Daily Avg. |
|--|----------------------|----------------------|
| Parameter  | (μg/L)               | , μg/L)              |
| Acrylonitrile  | 6.37                 | 7.74                 |
| Aldrin   | 0.0000731            | 0.0000887            |
| Anthracene   | 7075                 | 8591                 |
| Antimony   | 38.2                 | 46.4                 |
| Arsenic  | 115                  | 140                  |
| Barium   | 12759                | 15493                |
| Benzene  | 31.8                 | 38.7                 |
| Benzidine  | 0.00956              | 0.0116               |
| Benzo(a)anthracene                                       | 0.153                | 0.185                |
| Benzo(a)pyrene   | 0.0159               | 0.0193               |
| Bis(chloromethyl)ether                                   | 0.0153               | 0.0185               |
| Bis(2-chloroethyl)ether                                  | 3.82                 | 4.64                 |
| Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate] | 38.2                 | 46.4                 |
| Bromodichloromethane [Dichlorobromomethane]              | 65.0                 | 79.0                 |
| Bromoform [Tribromomethane]                              | 426                  | 518                  |
| Cadmium  | 164                  | 199                  |
| Carbon Tetrachloride                                     | 28.7                 | 34.8                 |
| Chlordane  | 0.0159               | 0.0193               |
| Chlorobenzene  | 637                  | 774                  |
| Chlorodibromomethane [Dibromochloromethane]              | 47.8                 | 58.1                 |

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| Chloroform [Trichloromethane]               | 446      | 542      |
|---|----------|----------|
| Chromium (hexavalent)                       | 395      | 480      |
| Chrysene                                    | 15.6     | 18.9     |
| Cresols [Methylphenols]                     | 6641     | 8064     |
| Cyanide (free)                              | 1275     | 1549     |
| 4,4'-DDD                                    | 0.0127   | 0.0154   |
| 4,4'-DDE                                    | 0.000829 | 0.00100  |
| 4,4'-DDT                                    | 0.00255  | 0.00309  |
| 2,4'-D                                      | 446      | 542      |
| Danitol [Fenpropathrin]                     | 1671     | 2029     |
| 1,2-Dibromoethane [Ethylene Dibromide]      | 1.08     | 1.31     |
| m-Dichlorobenzene [1,3-Dichlorobenzene]     | 2054     | 2494     |
| o-Dichlorobenzene [1,2-Dichlorobenzene]     | 3827     | 4648     |
| p-Dichlorobenzene [1,4-Dichlorobenzene]     | 478      | 581      |
| 3,3'-Dichlorobenzidine                      | 5.04     | 6.12     |
| 1,2-Dichloroethane                          | 31.8     | 38.7     |
| 1,1-Dichloroethylene [1,1-Dichloroethene]   | 44.6     | 54.2     |
| Dichloromethane [Methylene Chloride]        | 31.8     | 38.7     |
| 1,2-Dichloropropane                         | 31.8     | 38.7     |
| 1,3-Dichloropropene [1,3-Dichloropropylene] | 17.8     | 21.6     |
| Dicofol [Kelthane]                          | 1.91     | 2.32     |
| Dieldrin                                    | 0.000127 | 0.000154 |
| 2,4-Dimethylphenol                          | 2832     | 3439     |
| Di- <i>n</i> -Butyl Phthalate               | 567      | 688      |
| Dioxins/Furans [TCDD Equivalents]           | 4.97E-07 | 6.04E-07 |
| Endrin                                      | 0.127    | 0.154    |
| Epichlorohydrin                             | 341      | 414      |
| Ethylbenzene                                | 4465     | 5422     |
| Ethylene Glycol                             | 298217   | 362121   |
| Fluoride                                    | 25519    | 30987    |
| Heptachlor                                  | 0.000510 | 0.000619 |
| Heptachlor Epoxide                          | 0.00185  | 0.00224  |
| Hexachlorobenzene                           | 0.00433  | 0.00526  |
| Hexachlorobutadiene                         | 1.33     | 1.62     |
| Hexachlorocyclohexane (alpha)               | 0.0497   | 0.0604   |
| Hexachlorocyclohexane (beta)                | 0.956    | 1.16     |
| Hexachlorocyclohexane (gamma) [Lindane]     | 1.27     | 1.54     |
| Hexachlorocyclopentadiene                   | 68.2     | 82.8     |
| Hexachloroethane                            | 11.7     | 14.2     |
| Hexachlorophene                             | 13.0     | 15.8     |
| 4,4'-Isopropylidenediphenol [Bisphenol A]   | 6966     | 8459     |
| Lead  | 44.7     | 54.3     |
| Mercury                                     | 0.0778   | 0.0945   |
| Methoxychlor                                | 18.6     | 22.6     |
| Methyl Ethyl Ketone                         | 88455    | 107410   |
| Methyl tert-butyl ether [MTBE]              | 95.6     | 116      |
| Nickel                                      | 9510     | 11548    |
| Nitrate-Nitrogen (as Total Nitrogen)        | 63798    | 77469    |
| Nitrobenzene                                | 291      | 354      |
| N-Nitrosodiethylamine                       | 0.0236   | 0.0286   |
| N-Nitroso-di- <i>n</i> -Butylamine          | 0.759    | 0.921    |
| Pentachlorobenzene                          | 2.22     | 2.69     |
| Pentachlorophenol                           | 1.40     | 1.70     |
| Polychlorinated Biphenyls [PCBs]            | 0.00408  | 0.00495  |
| Pyridine                                    | 146      | 178      |
|   |          |          |

| Selenium                                  | 318    | 387    |
|---|--------|--------|
| 1,2,4,5-Tetrachlorobenzene                | 1.46   | 1.78   |
| 1,1,2,2-Tetrachloroethane                 | 10.4   | 12.7   |
| Tetrachloroethylene [Tetrachloroethylene] | 31.8   | 38.7   |
| Thallium                                  | 0.765  | 0.929  |
| Toluene                                   | 6379   | 7746   |
| Toxaphene                                 | 0.0701 | 0.0852 |
| 2,4,5-TP [Silvex]                         | 318    | 387    |
| 1,1,1-Trichloroethane                     | 1275   | 1549   |
| 1,1,2-Trichloroethane                     | 31.8   | 38.7   |
| Trichloroethylene [Trichloroethene]       | 31.8   | 38.7   |
| 2,4,5-Trichlorophenol                     | 6628   | 8049   |
| TTHM [Sum of Total Trihalomethanes]       | 510    | 619    |
| Vinyl Chloride                            | 1.46   | 1.78   |



## RECEIVED

April 29, 2024

Texas Commission on Environmental Quality Water Quality Division Applications Review and Processing Team (MC148) P.O. Box 13087 Austin, Texas 78711-3087 MAY 0 1 2024
WATER QUALITY DIVISION
TCEQ

RE: Major Amendment Permit Application for the Clear Creek Water Reclamation Plant (WQ0014416001, RN103935516)

Dear Water Quality Team:

This letter serves to transmit the major amendment application for the Clear Creek Water Reclamation Plant.

The permit application follows this letter within the following attachments:

Attachment A: Administrative Report 1.0

Attachment B: Administrative Report 1.1

Attachment C: SPIF

Attachment D: TCEQ Core Data Form

Attachment E: Domestic Technical Report 1.0

Attachment F: Domestic Technical Report 1.1

Attachment G: Domestic Technical Worksheet 2.0

Attachment H: Domestic Technical Worksheet 2.1

Attachment I: Domestic Technical Worksheet 6.0

Attachment J: Original USGS Map

Attachment K: Affected Landowners Map

Attachment L: Landowner List and Labels

Attachment M: Buffer Zone Map

Attachment N: Process Flow Diagram

Attachment O: Site Drawing

Attachment P: Original Photographs and Plot Plan

Attachment Q: Design Calculations and Features

Attachment R: Solids Management Plan

Attachment S: Wind Rose

Attachment T: Public Involvement Plan Form

Attachment U: Sewage Sludge Technical Report

Attachment V: Sludge Treatment Process Information



Attachment W: Denton County Map

Attachment X: Composting Facility Site Operation Plan

Attachment Y: Copy of Permit Payment Voucher

Attachment Z: City Ordinance

If you have any questions regarding this project, please contact me at 817-349-2829.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Tun South

Texas Firm No. 928

Andrew Kanewske, P.E. (Texas License No. 145305)

### 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) (Required for all applications 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 (TCEQ Form Nos. 10053 and 10054. Version dated 6/25/2018 or later.)   |  |   |   |              |  |  |
| Water Quality Permit Payment Submittal Form (Page 19)<br>(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.   |  |   |   |              |  |  |
| 7.5 Minute USGS Quadrangle Topographic Map Attached (Full-size map if seeking "New" permit. 8 ½ x 11 acceptable for Renewals and Amendments)   |  |   |   | Yes          |  |  |
| Current/Non-Expired, Executed Lease Agreement or Easement Attached   |  | N/A   |   | Yes          |  |  |
| Landowners Map<br>(See instructions for landowner requirements)  |  | N/A   | $\boxtimes$                               | Yes          |  |  |
| <ul> <li>Things to Know:</li> <li>All the items shown on the map must be labeled.</li> <li>The applicant's complete property boundaries must be delineated boundaries of contiguous property owned by the applicant.</li> <li>The applicant cannot be its own adjacent landowner. You must landowners immediately adjacent to their property, regardless of from the actual facility.</li> <li>If the applicant's property is adjacent to a road, creek, or stream the opposite side must be identified. Although the properties are applicant's property boundary, they are considered potentially at the adjacent road is a divided highway as identified on the USGS applicant does not have to identify the landowners on the opposition highway.</li> </ul> | idention for the second | fy the<br>v far th<br>landow<br>adjace<br>ed land<br>graphi | ey are<br>vners<br>nt to<br>owne<br>c map | on<br>rs. If |  |  |
| Landowners Cross Reference List  (See instructions for landowner requirements)   |  |   |   |              |  |  |
| Landowners Labels or USB Drive attached (See instructions for landowner requirements)  |  |   |   |              |  |  |
| Original signature per 30 TAC § 305.44 – Blue Ink Preferred (If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached)  |  |   |   |              |  |  |

## ATTACHMENT A: AMINISTRATIVE REPORT 1.0

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

### Complete and submit this checklist with the application.

APPLICANT: City of Denton

PERMIT NUMBER: WQ0014416001

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

N

Y

| Administrative Report 1.0    | $\boxtimes$ |             | Original USGS Map  | $\boxtimes$   |             |
|------------------------------|-------------|-------------|--|---|-------------|
| Administrative Report 1.1    | $\boxtimes$ |             | Affected Landowners Map  | $\boxtimes$   |             |
| SPIF                         | $\boxtimes$ |             | Landowner Disk or Labels   | $\boxtimes$   |             |
| Core Data Form               | $\boxtimes$ |             | Buffer Zone Map  | $\boxtimes$   |             |
| Public Involvement Plan Form | $\boxtimes$ |             | Flow Diagram   | $\boxtimes$   |             |
| Technical Report 1.0         | $\boxtimes$ |             | Site Drawing   | $\boxtimes$   |             |
| Technical Report 1.1         | $\boxtimes$ |             | Original Photographs   | $\boxtimes$   |             |
| Worksheet 2.0                | $\boxtimes$ |             | Design Calculations  | $\boxtimes$   |             |
| Worksheet 2.1                |             |             | Solids Management Plan   | $\boxtimes$   |             |
| Worksheet 3.0                |             | $\boxtimes$ | Water Balance  |   | $\boxtimes$ |
| Worksheet 3.1                |             |             |  |   |             |
| Worksheet 3.2                |             |             |  |   |             |
| Worksheet 3.3                |             |             |  |   |             |
| Worksheet 4.0                |             |             |  |   |             |
| Worksheet 5.0                |             |             | THE STATE OF THE S | 9   |             |
| Worksheet 6.0                | $\boxtimes$ |             | RECEIVED<br>MAY 0 1 2024   | - The Control of the |             |
| Worksheet 7.0                |             | $\boxtimes$ | MAY UT ZUZA  |   |             |
|                              |             |             | Water Quality Application  | s Team  |             |
|                              |             |             |  |   |             |
| For TCEQ Use Only            |             |             |  |   |             |
| Segment Number               |             |             | County   |   |             |
| Expiration Date              |             |             | Region   |   |             |

Y

N



### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## APPLICATION FOR A DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT 1.0

If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

### Section 1. Application Fees (Instructions Page 29)

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 $\square$ |                     |              |  |  |  |  |  |
| Dayment Information                               |                     |              |  |  |  |  |  |

### **Payment Information:**

Mailed Check/Money Order Number: N/A

Check/Money Order Amount: N/A

Name Printed on Check: N/A

EPAY Voucher Number: 694886

Copy of Payment Voucher enclosed?

Yes ⊠

## Section 2. Type of Application (Instructions Page 29)

|   | New TPDES                       |  | New TLAP                        |  |
|---|---------------------------------|--|---------------------------------|--|
| $\boxtimes$   | Major Amendment with Renewal    |  | Minor Amendment with Renewal    |  |
|   | Major Amendment without Renewal |  | Minor Amendment without Renewal |  |
|   | Renewal without changes         |  | Minor Modification of permit    |  |
| For amendments or modifications, describe the proposed changes: Changing facility to a 2.5, |                                 |  |                                 |  |

For amendments or modifications, describe the proposed changes: <u>Changing facility to a 2.5, 5.0, and 10.0 MGD membrane bioreactor system over 3 phases.</u>

### For existing permits:

Permit Number: WQ00<u>14416001</u> EPA I.D. (TPDES only): TX<u>0125628</u> Expiration Date: April 5, 2027

## Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 29)

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

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

City of Denton

(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 <a href="http://www15.tceq.texas.gov/crpub/">http://www15.tceq.texas.gov/crpub/</a>

CN: 600358980

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., Ms., Miss): Ms.

First and Last Name: Sara Hensley

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

Title: City Manager

**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?

N/A

(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: N/A

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., Ms., Miss): N/A

First and Last Name: N/A

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

Title: N/A

Provide a brief description of the need for a co-permittee: N/A

### 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: Attachment D: TCEQ Core Data Form

## Section 4. Application Contact Information (Instructions Page 30)

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., Ms., Miss): Mr. First and Last Name: William "Rusty" Willard Credential (P.E, P.G., Ph.D., etc.): N/A Title: Water Reclamation Superintendent Organization Name: <u>City of Denton</u> Mailing Address: 1100 S Mayhill Rd City, State, Zip Code: Denton, TX 76208 Phone No.: 940-349-8601 Ext.: N/A Fax No.: N/A E-mail Address: rusty.willard@cityofdenton.com **Technical Contact** Check one or both: X Administrative Contact **B.** Prefix (Mr., Ms., Miss): Mr. First and Last Name: Andrew Kanewske Credential (P.E, P.G., Ph.D., etc.): P.E. Title: Professional Engineer Organization Name: Kimley-Horn Mailing Address: 801 Cherry Street, Suite 1300, Unit 11 City, State, Zip Code: Fort Worth, TX 76102 Phone No.: 817-349-2829 Ext.: N/A Fax No.: N/A E-mail Address: Andrew.Kanewske@kimley-horn.com **Technical Contact** Check one or both: Administrative Contact X

## Section 5. Permit Contact Information (Instructions Page 30)

Provide two names of individuals that can be contacted throughout the permit term.

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

First and Last Name: William "Rusty" Willard

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

Title: Water Reclamation Superintendent

Organization Name: <u>City of Denton</u> Mailing Address: 1100 S Mayhill Rd.

City, State, Zip Code: Denton, TX 76208

Phone No.: <u>940-349-8601</u> Ext.: <u>N/A</u> Fax No.: <u>N/A</u> E-mail Address: rusty.willard@cityofdenton.com

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

First and Last Name: Jerry Lilley

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

Title: Water Reclamation Operations Manager

Organization Name: <u>City of Denton</u> Mailing Address: <u>1100 S Mayhill Rd</u>

City, State, Zip Code: Denton, TX 76208

Phone No.: <u>940-349-8662</u> Ext.: <u>N/A</u> Fax No.: <u>N/A</u> E-mail Address: jerry.lilley@cityofdenton.com

## Section 6. Billing Information (Instructions Page 30)

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., Ms., Miss): Mr.

First and Last Name: William "Rusty" Willard

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

Title: Water Reclamation Superintendent

Organization Name: <u>City of Denton</u> Mailing Address: 1100 S Mayhill Rd

City, State, Zip Code: <u>Denton, TX 76208</u>

Phone No.: <u>940-349-8601</u> Ext.: <u>N/A</u> Fax No.: <u>N/A</u> E-mail Address: <u>rusty.willard@cityofdenton.com</u>

### Section 7. DMR/MER Contact Information (Instructions Page 31)

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

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

First and Last Name: <u>Marcos Diosdado</u> Credential (P.E. P.G., Ph.D., etc.): N/A

Title: Lab Manager

Organization Name: <u>City of Denton</u> Mailing Address: <u>1100 S Mayhill Rd</u>

City, State, Zip Code: Denton, TX 76208

Phone No.: <u>940-349-8615</u> Ext.: <u>N/A</u> Fax No.: <u>N/A</u>

E-mail Address: marcos.diosdado@cityofdenton.com

DMR data is required to be submitted electronically. Create an account at:

https://www.tceq.texas.gov/permitting/netdmr/netdmr.html.

### Section 8. Public Notice Information (Instructions Page 31)

### A. Individual Publishing the Notices

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

First and Last Name: Andrew Kanewske

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

Title: Professional Engineer

Organization Name: Kimley-Horn

Mailing Address: 801 Cherry Street, Suite 1300, Unit 11

City, State, Zip Code: Fort Worth, TX 76102

Phone No.: 817-349-2829 Ext.: N/A Fax No.: N/A

E-mail Address: Andrew.Kanewske@kimley-horn.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:

□ Fax

□ Regular Mail

### C. Contact person to be listed in the Notices

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

First and Last Name: Andrew Kanewske

Credential (P.E. P.G., Ph.D., etc.): P.E. Title: Professional Engineer Organization Name: Kimley-Horn Phone No.: 817-349-2829 Ext.: N/A E-mail: Andrew.Kanewske@kimley-horn.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: Pecan Creek Water Reclamation Plant, Administration Building Location within the building: Foyer Physical Address of Building: 1100 South Mayhill Road City: Denton County: Denton County Contact Name: William "Rusty" Willard Phone No.: 940-349-8601 Ext.: N/A 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?  $\boxtimes$ Yes No If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

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

2. Are the students who attend either the elementary school or the middle school enrolled in

□ Yes ⊠ No

Yes

a bilingual education program at that school?

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? <u>Spanish</u>    |  |
| F. | Pu   | ablic Involvement Plan Form  |  |
|    | Co   | omplete the Public Involvement Plan Form (TCEQ Form 20960) for each application for a  |  |
|    |  | w permit or major amendment to a permit and include as an attachment.  |  |
|    | At   | tachment: Attachment T: Public Involvement Plan Form   |  |
|    |  |  |  |
| Se | cti  | ion 9. Regulated Entity and Permitted Site Information (Instructions<br>Page 33)   |  |
| A. |  | the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued this site. RN103935516  |  |
|    |  | arch the TCEQ's Central Registry at <a href="http://www15.tceq.texas.gov/crpub/">http://www15.tceq.texas.gov/crpub/</a> to determine if e site is currently regulated by TCEQ. |  |
| B. | . Name of project or site (the name known by the community where located): |  |  |
|    | <u>Cle</u>   | ear Creek Water Reclamation Plant  |  |
| C. | . Owner of treatment facility: <u>City of Denton</u>                       |  |  |
|    | Ov   | vnership of Facility: $oxtimes$ Public $oxtimes$ Private $oxtimes$ Both $oxtimes$ Federal  |  |
| D. | Ov   | vner of land where treatment facility is or will be:   |  |
|    | Pre  | efix (Mr., Ms., Miss): <u>N/A</u>  |  |
|    | Fir  | rst and Last Name: <u>City of Denton</u>   |  |
|    | Ma   | ailing Address: <u>901 Texas Street, Suite A</u>   |  |
|    | Cit  | ty, State, Zip Code: <u>Denton, Texas 76209</u>  |  |
|    | Ph   | one No.: <u>940-349-8601</u> E-mail Address: <u>rusty.willard@cityofdenton.com</u>   |  |
|    |  | the landowner is not the same person as the facility owner or co-applicant, attach a lease reement or deed recorded easement. See instructions.                                |  |
|    |  | Attachment: N/A  |  |
| E. | Ov   | vner of effluent disposal site:  |  |
|    | Pre  | efix (Mr., Ms., Miss): <u>N/A</u>  |  |
|    | Fir  | rst and Last Name: <u>N/A</u>  |  |
|    | Ma   | ailing Address: <u>N/A</u>   |  |
|    | Cit  | ty, State, Zip Code: <u>N/A</u>  |  |

|    | Phone No.: N/A E-mail Address: N/A   |
|----|--|
|    | If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.   |
|    | Attachment: N/A  |
| F. | Owner of sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant):   |
|    | Prefix (Mr., Ms., Miss): N/A   |
|    | First and Last Name: <u>N/A</u>  |
|    | Mailing Address: N/A   |
|    | City, State, Zip Code: <u>N/A</u>  |
|    | Phone No.: <u>N/A</u> E-mail Address: <u>N/A</u>   |
|    | If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.   |
|    | Attachment: N/A  |
| Se | ection 10. TPDES Discharge Information (Instructions Page 34)  |
| 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:   |
|    | The water reclamation plant will be located approximately 9,200 ft east of Farm-to-Market Road 428 and 1,800 ft northwest of Hartlee Field Road in Denton County, Texas.   |
|    | THE ROLL TO WILL I,000 It HOTHITEST OF THE LICE YEAR TOWN IN BELLEVILLE COURT, I ELECT   |
| B. | Are the point(s) of discharge and the discharge route(s) in the existing permit correct?   |
|    | □ Yes ⊠ No   |
|    | If <b>no</b> , <b>or a new or amendment permit application</b> , 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: |
|    | The point of discharge is approximately 8,500 ft east of Farm-to-Market Road 428 and   |
|    | 3,000 ft northwest of Hartlee Field Road in Denton County, Texas. Discharge enters into on-site finishing ponds, thence to the Clear Creek stream (0823C) thence flows into Elm  |
|    | Fork Trinity River (0823) thence into Lewisville Lake.   |

City nearest the outfall(s): City of Denton

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

Outfall Latitude: <u>33.279218</u> Longitude: <u>-97.067088</u>

**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 <b>yes</b> , indicate by a check mark if:  |  |  |
|    | $\square$ Authorization granted $\square$ Authorization pending   |  |  |
|    | For <b>new and amendment</b> applications, provide copies of letters that show proof of contact and the approval letter upon receipt.   |  |  |
|    | Attachment: N/A   |  |  |
| D. | For all applications involving an average daily discharge of 5 MGD or more, provide the<br>names of all counties located within 100 statute miles downstream of the point(s) of<br>discharge. |  |  |
|    | Dallas, Ellis, Henderson, Kaufman, and Navarro County.  |  |  |
| So | ction 11. TLAP Disposal Information (Instructions Page 36)  |  |  |
| 36 | Chon 11. TLAP Disposai information (histructions rage 30)   |  |  |
| A. | For TLAPs, is the location of the effluent disposal site in the existing permit accurate?   |  |  |
|    | □ Yes □ No  |  |  |
|    | If <b>no, or a new or amendment permit application</b> , provide an accurate description of the disposal site location:   |  |  |
|    | N/A   |  |  |
|    |   |  |  |
|    | City nearest the disposal site: N/A   |  |  |
|    | County in which the disposal site is located: N/A   |  |  |
|    | Disposal Site Latitude: N/A Longitude: N/A  |  |  |
| E. | For TLAPs, describe the routing of effluent from the treatment facility to the disposal site:   |  |  |
|    | N/A   |  |  |
|    |   |  |  |
|    |   |  |  |
| F. | For <b>TLAPs</b> , please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained:   |  |  |
|    | N/A   |  |  |
|    |   |  |  |
|    |   |  |  |

## Section 12. Miscellaneous Information (Instructions Page 37)

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

|    |         | Yes                    | $\boxtimes$     | No        |             |                            |        |                      |            |                |           |            |
|----|---------|------------------------|-----------------|-----------|-------------|----------------------------|--------|----------------------|------------|----------------|-----------|------------|
| В. |         |                        |                 |           |             | onsite slu<br>e existing p |        |                      |            | ation, is      | the locat | ion of the |
|    |         | Yes                    |                 | No        | $\boxtimes$ | Not Appl                   | icable |                      |            |                |           |            |
|    |         |                        |                 |           |             | sposal aut<br>ocation de   |        |                      |            |                |           |            |
|    | N/A     |                        | -               |           |             |                            |        |                      |            |                |           |            |
|    |         |                        |                 |           |             |                            | ,      |                      |            |                |           |            |
| C. |         | ıy persoı<br>e regardi |                 |           |             | ed by the T<br>?           | CEQ r  | epresen <sup>.</sup> | t your co  | ompany         | and get p | oaid for   |
|    |         | Yes                    |                 | No        |             |                            |        |                      |            |                |           |            |
|    | was pa  |                        | ervice          | regardi   |             | mployed be applicati       |        | TCEQ w               | ho repre   | esented        | your com  | pany and   |
|    | CIIIIS  | stopner r              | <u>viuiiiii</u> | <u>5</u>  |             |                            |        |                      |            |                |           |            |
|    |         |                        |                 |           |             |                            |        |                      |            |                |           |            |
|    |         |                        |                 |           |             |                            |        |                      |            |                | _         |            |
| D. | Do you  | u owe an               | y fees          | s to the  | TCEQ        | ?                          |        |                      |            |                |           |            |
|    |         | Yes                    | $\boxtimes$     | No        |             |                            |        |                      |            |                |           |            |
|    | If yes, | provide                | the f           | ollowin   | g info      | rmation:                   |        |                      |            |                |           |            |
|    | Accou   | nt numb                | er: <u>N</u> /  | <u>'A</u> |             |                            |        | Amoun                | it past d  | ue: <u>N/A</u> | •         |            |
| E. | Do you  | u owe an               | ıy pen          | alties to | o the T     | CEQ?                       |        |                      |            |                |           |            |
|    |         | Yes                    | $\boxtimes$     | No        |             |                            |        |                      |            |                |           |            |
|    | If yes, | please p               | provid          | le the fo | ollowii     | ng informa                 | ition: |                      |            |                |           |            |
|    | Enforc  | ement o                | rder r          | number    | <u>N/A</u>  |                            |        | Amoun                | it past d  | ue: <u>N/A</u> |           |            |
| Se | ction   | 13. At                 | tach            | ment      | s (Ins      | structio                   | ns Pa  | ige 38)              |            |                |           |            |
|    | Indica  | te which               | attac           | hments    | are ir      | ,<br>icluded wi            | th the | Admini               | strative : | 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:

### Section 14. Signature Page (Instructions Page 39)

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

Permit Number: WQ0014416001

Applicant: City of Denton

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): <u>Sara Hensley</u> |
|--|
| Signatory title: <u>City Manager</u>                   |
| Signature: Date: 4/17/24                               |
| (Use blue ink)   |
| Subscribed and Sworn to before me by the said          |
| CUBUCIO WELLOUD  Notary Public  KARISA LEIGH RICHARDS  |

County, Texas

My Notary ID # 131826791 Expires December 14, 2026

## Section 15. Plain Language Summary (Instructions Page 40)

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

## ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

### DOMESTIC WASTEWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application. City of Denton (CN 600358980) proposes to operate Clear Creek Water Reclamation Plant (RN103935516). a membrane bioreactor process plant scheme. The facility will be located approximately 9,200 ft east of Farm-to-Market Road 428 and 1,800 ft northwest of Hartlee Field, in Denton, Denton County, Texas 76208.

Major amendment application to discharge 10 MGD design flow of treated domestic water.

Discharges from the facility are expected to contain five-day biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), ammonia nitrogen (NH<sub>3</sub>-H), phosphorus (P), and dissolved oxygen (DO). Domestic wastewater will be treated by a membrane bioreactor process plant and the treatment units will include bar screens, grit chambers, primary clarifiers, anaerobic basins, anoxic basins, aerobic submerged membrane unit basins, anaerobic digesters, and ultraviolet (UV) disinfection.

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

### AGUAS RESIDUALES DOMÉSTICAS

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

1. Introduzca el nombre del solicitante aquí. (2. Introduzca el número de cliente aquí (es decir, CN6 #########). ) 3. Elija del menú desplegable. 4. Introduzca el nombre de la instalación aquí. 5. Introduzca el número de entidad regulada aquí (es decir, RN1 #######). 6. Elija del menú desplegable. 7. Introduzca la descripción de la instalación aquí. . La instalación 8. Elija del menú desplegable. ubicado 9. Introduzca la ubicación aquí. , en 10. Introduzca el nombre de la ciudad aquí. , Condado de 11. Introduzca el nombre del condado aquí. , Texas 12. Introduzca el código postal aquí. . 13. Introduzca el resumen de la solicitud de solicitud aquí. < Para las aplicaciones de TLAP incluya la siguiente oración, de lo contrario, elimine: >> Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan 14. Liste todos los contaminantes esperados aquí. 15. Introduzca los tipos de aguas residuales descargadas aquí. 16. Elija del menú desplegable. tratado por 17. Introduzca una descripción del tratamiento de aguas residuales utilizado en la instalación aquí.

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son representaciones federales exigibles de la solicitud de permiso. La ciudad de Denton (CN 600358980) propone operar la planta de tratamiento de aguas residuales Clear Creek (RN 103935516). La planta operara utilizando el proceso del reactor biológico con membranas. La planta estará localizada aproximadamente a 9,200 pies al este de la calle Farm to Market 428 y 1,800 pies al noroeste del campo Hartlee, en la ciudad de Denton, en el condado de Denton, Texas 76208.

Enmienda mayor para descargar 10 millones de galones de agua residual tratada por día basados en el flujo de diseño.

Se espera que descargas de esta planta tendrán materia orgánica carbonosa del agua residual basada en 5 días (BOD5), solidos suspendidos totales (TSS), amoniaco-nitrógeno (NH3-N), fosforo (P), y oxígeno disuelto (DO). El agua residual domestica será tratada por una planta que utilice el proceso del reactor biológico con membranas, y los equipos de tratamiento incluirán pantallas de barra, tanques clarificadores primarios, tanques anaeróbicos, tanques anoxicos, tanques de membranas aérobicas, digestión anaeróbica, y desinfección ultravioleta.

## ATTACHMENT B: ADMINISTRATIVE REPORT 1.1

### **DOMESTIC ADMINISTRATIVE REPORT 1.1**

The following information is required for new and amendment applications.

## Section 1. Affected Landowner Information (Instructions Page 41)

| Α. |             | cate by a check mark that the landowners map or drawing, with scale, includes the owing information, as applicable:  |
|----|-------------|--|
|    | $\boxtimes$ | The applicant's property boundaries  |
|    | $\boxtimes$ | The facility site boundaries within the applicant's property boundaries  |
|    | $\boxtimes$ | The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone   |
|    | $\boxtimes$ | 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   |
|    | $\boxtimes$ | 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. | ⊠<br>addı   | Indicate by a check mark that a separate list with the landowners' names and mailing resses cross-referenced to the landowner's map has been provided.   |
| C. | Indi        | cate by a check mark in which format the landowners list is submitted:   |
|    |             | ☐ USB Drive  |
| D. |             | ride the source of the landowners' names and mailing addresses: <u>Denton County</u> raisal <u>District</u>  |
| E. |             | equired by $Texas\ Water\ Code\ \S\ 5.115$ , is any permanent school fund land affected by this lication?  |
|    | Ē           | □ Yes ⊠ No   |

|     | If yes        | , provide the location and foreseeable impacts and effects this application has on the   |
|-----|---------------|--|
|     | N/A           |  |
|     | 13<br>V       |  |
| G   | - Citic       | n 2. Original Photographs (Instructions Page 44)   |
| Pro | ovide o       | n 2. Original Photographs (Instructions Page 44) riginal ground level photographs. Indicate with checkmarks that the following ion is provided.  |
|     | $\boxtimes$ A | at least one original photograph of the new or expanded treatment unit location  |
|     | (<br>6        | 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. |
|     | $\boxtimes$ A | at least one photograph of the existing/proposed effluent disposal site  |
|     | $\boxtimes$ A | a plot plan or map showing the location and direction of each photograph   |
| S   | ectio         | n 3. Buffer Zone Map (Instructions Page 44)  |
| Α.  | inforr        | x zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following nation. The applicant's property line and the buffer zone line may be distinguished by dashes or symbols and appropriate labels.  |
|     | •             | The applicant's property boundary; The required buffer zone; and Each treatment unit; and The distance from each treatment unit to the property boundaries.  |
| В.  |               | zone compliance method. Indicate how the buffer zone requirements will be met.   |
|     | $\boxtimes$   | Ownership  |
|     |               | Restrictive easement   |
|     |               | Nuisance odor control  |
|     |               | Variance   |
| C.  |               | table site characteristics. Does the facility comply with the requirements regarding table site characteristic found in 30 TAC § 309.13(a) through (d)?  |
|     |               | Yes □ No   |

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

## FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

| TCEQ USE ONLY:  |   |
|---|---|
| Application type:RenewalMajor Ar  | nendmentNinor AmendmentNew  |
| 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 application   | ns only. (Instructions, Page 53)  |
|   |   |
| be provided with this form separately from the  | permit application form. Each attachment must administrative report of the application. The y complete without this form being completed in |
| The following applies to all applications:  |   |
| 1. Permittee: <u>City of Denton</u>   |   |
| Permit No. WQ00 <u>14416001</u>   | EPA ID No. TX <u>0125628</u>  |
| Address of the project (or a location descripe and county):                           | otion that includes street/highway, city/vicinity,  |
| The water reclamation plant will be located Road 428 and 1,800 ft northwest of Hartle | d approximately 9,200 ft east of Farm-to-Market<br>e Field Road in Denton County, Texas.  |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |

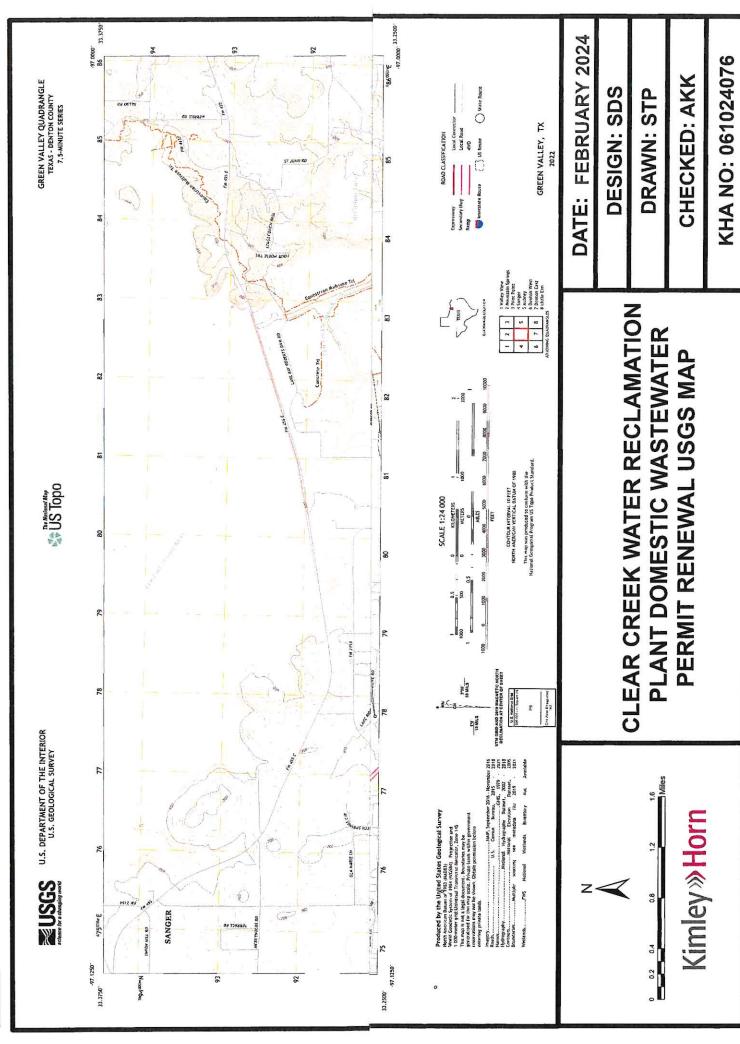
| Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.   |  |  |  |  |  |
|---|--|--|--|--|--|
| Prefix (Mr., Ms., Miss): Mr.  |  |  |  |  |  |
| First and Last Name: Rusty Willard  |  |  |  |  |  |
| Credential (P.E, P.G., Ph.D., etc.): N/A  |  |  |  |  |  |
| Title: Water Reclamation Superintendent   |  |  |  |  |  |
| Mailing Address: 1100 S Mayhill Rd  |  |  |  |  |  |
| City, State, Zip Code: <u>Denton, TX 76208</u>  |  |  |  |  |  |
| Phone No.: <u>940-349-8601</u> Ext.: <u>N/A</u> Fax No.: <u>N/A</u>   |  |  |  |  |  |
| E-mail Address: <u>rusty.willard@cityofdenton.com</u>   |  |  |  |  |  |
| List the county in which the facility is located: <u>Denton County</u>  |  |  |  |  |  |
| If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.   |  |  |  |  |  |
| N/A   |  |  |  |  |  |
|   |  |  |  |  |  |
| 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.             |  |  |  |  |  |
| The point of discharge is approximately 8,500 ft east of Farm-to-Market Road 428 and 3,000 ft northwest of Hartlee Field Road in Denton County, Texas. Discharge enters into onsite finishing ponds, thence to the Clear Creek stream (0823C) thence flows into Elm Fork Trinity River (0823) thence into Lewisville Lake.            |  |  |  |  |  |
| 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   |  |  |  |  |  |

2.3.

4.

5.

|    | ☐ Disturbance of vegetation or wetlands   |
|----|---|
| 6. | List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):  The construction impact can ultimately affect 9.4 acres of mostly surface disturbance with |
|    | an approximate maximum depth of excavation of 30 ft.  |
| 7. | Describe existing disturbances, vegetation, and land use:   |
|    | No disturbances. Vegetation includes trees and shrubbery. The land is used for public trails.   |
|    |   |
| TL | HE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR   |
|    | MENDMENTS TO TPDES PERMITS  |
| 8. | List construction dates of all buildings and structures on the property:  |
|    | No current buildings or structures are located on the property.   |
|    |   |
|    |   |
| 9. | Provide a brief history of the property, and name of the architect/builder, if known.   |
|    | History of property not known.  |
|    |   |
|    |   |
|    |   |
|    |   |



# ATTACHMENT D: TCEQ CORE DATA FORM

TCEQ Use Only



## **TCEQ Core Data Form**

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

#### **SECTION I: General Information**

| Renewal (Core Data Form should be su                                | mitted with the renewal form)                 | Other Major Amendment with Renewal               |  |  |
|---|---|--|--|--|
| 2. Customer Reference Number (if issued) Follow this link to search |   | 3. Regulated Entity Reference Number (if issued) |  |  |
| CN 600358980  | for CN or RN numbers in<br>Central Registry** | RN 103935516                                     |  |  |

| 4. General C  | ustomer li  | nformation                            | 5. Effective Date for Customer Information Updates (mm/dd/yyyy) |                       |            |   |   |                          | 02/29/2024  |                          |                 |
|---|-------------|---------------------------------------|---|-----------------------|------------|---|---|--------------------------|-------------|--------------------------|-----------------|
| ☐ New Customer ☐ Update to Customer Information                                 |             |                                       |   |                       | ation      | ☐ Change in Regulated Entity Ownership          |   |                          |             |                          |                 |
| Change in L   | egal Name   | (Verifiable with the                  | e Texas Secretary of S  | tate or Te            | xas Con    | nptrolle  | r of Publ   | ic Accounts)             |             |                          |                 |
|   |             | ubmitted here m<br>oller of Public Ad | ay be updated aut<br>ccounts (CPA).                             | omatica               | lly base   | ed on w   | vhat is c   | current and acti         | ve with t   | he Texas Sec             | retary of State |
| 6. Customer Legal Name (If an individual, print last name first: eg: Doe, John) |             |                                       |   |                       |            | If new Customer, enter previous Customer below: |   |                          |             |                          |                 |
| ity of Denton   |             |                                       |   |                       |            |   |   |                          |             |                          |                 |
| 7. TX SOS/CPA Filing Number 8. TX State Tax ID (11 digits) N/A N/A              |             |                                       |   | digits)               |            |   | 9. Federal Tax ID  (9 digits)  TX0125628  10. DUNS Number (a applicable)  N/A |                          |             | Number (if               |                 |
| 1. Type of C  | Customer:   | ☐ Corp                                | oration   |                       |            |   | ] Individ   | ndividual Partn          |             | nership: General Limited |                 |
| overnment:  | ☑ City ☐    | County 🔲 Federal                      | ☐ Local ☐ State ☐   | Other                 |            |   | Sole P  | Sole Proprietorship Othe |             | her:                     |                 |
| 2. Number   | of Employ   | ees                                   |   |                       |            | 5 10  |   | 13. Independ             | ently Ow    | ned and Ope              | erated?         |
| 0-20  | 21-100 [    | 101-250                               | 251-500 🛮 501 an  | nd higher             |            |   |   | Yes                      | ⊠ No        |                          |                 |
| 4. Custome  | r Role (Pro | posed or Actual) –                    | as it relates to the Re   | gulated E             | ntity list | ted on th                                       | his form.   | Please check one         | of the foll | owing                    |                 |
| Owner Occupation  | al Licensee | Operator Responsible                  |   | er & Oper<br>P/BSA Ap |            | E. Michelle I                                   |   | ☐ Othe                   | r:          |                          |                 |
| 5. Mailing  | 1100 S. N   | layhill Rd.                           |   |                       |            |   |   |                          |             |                          |                 |
| Address:  | City        | Denton                                |   | State                 | TX         | - 1   | ZIP   | 76208                    |             | ZIP + 4                  |                 |
| 6. Country l  | Mailing In  | <br>f <b>ormation</b> (if out:        | side USA)   |                       |            | 17. E   | -Mail A   | ddress (if applica       | ble)        |                          |                 |
|   | Te Con      |                                       |   |                       |            | rusty.  | willard@  | cityofdenton.com         |             |                          |                 |
|   |             |                                       |   |                       |            |   |   |                          |             |                          |                 |

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## **SECTION III: Regulated Entity Information**

| 21. General Regulated Er                              | tity Inform   | ation (If 'New Regi                      | ulated Entity" is sele                   | cted, a new p               | ermit applica | ation is also r     | equired.)                      |             |                 |  |  |  |  |
|---|---------------|--|--|-----------------------------|---------------|---------------------|--------------------------------|-------------|-----------------|--|--|--|--|
| ☐ New Regulated Entity                                | Update to     | Regulated Entity                         | Name 🛭 Update                            | to Regulated                | Entity Inforn | nation              |                                |             |                 |  |  |  |  |
| The Regulated Entity Nar<br>as Inc, LP, or LLC).      | ne submitte   | ed may be update                         | ed, in order to me                       | et TCEQ Cor                 | re Data Sta   | ndards (rer         | noval of or                    | ganization  | al endings such |  |  |  |  |
| 22. Regulated Entity Nam                              | ne (Enter nan | ne of the site where                     | the regulated actio                      | n is taking pla             | ice.)         |                     |                                |             |                 |  |  |  |  |
| Clear Creek Water Reclamati                           | on Plant      |  |  |                             |               |                     |                                |             |                 |  |  |  |  |
| 23. Street Address of the Regulated Entity:           |               |  | -  |                             |               |                     |                                |             |                 |  |  |  |  |
| (No PO Boxes)   | City          |  | State                                    |                             | ZIP           |                     |                                | ZIP + 4     |                 |  |  |  |  |
| 24. County  | Denton Co     | unty                                     |  |                             |               |                     |                                |             |                 |  |  |  |  |
|   | -             | If no Street                             | t Address is provi                       | ded, fields 2               | 5-28 are re   | quired.             |                                |             |                 |  |  |  |  |
| 25. Description to Physical Location:                 |               | eclamation plant w<br>d Road in Denton C | vill be located approx<br>County, Texas. | kimately 9,200              | Oft east of F | arm-to-Mark         | et Road 428                    | and 1,800 f | t northwest of  |  |  |  |  |
| 26. Nearest City                                      |               |  |  |                             |               | State               |                                | Nea         | rest ZIP Code   |  |  |  |  |
| Denton  |               |  |  |                             |               | TX                  |                                | 7620        | 8               |  |  |  |  |
| Latitude/Longitude are re<br>used to supply coordinat |               |  |  |                             | ata Stando    | ards. (Geoc         | oding of th                    | e Physical  | Address may be  |  |  |  |  |
| 27. Latitude (N) In Decim                             | al:           | 33.279218                                |  | 28. Lo                      | ongitude (V   | V) In Decim         | al:                            | -97.06708   | 88              |  |  |  |  |
| Degrees   | Minutes       |  | Seconds                                  | Degre                       | es            | Mi                  | nutes                          |             | Seconds         |  |  |  |  |
| 33  |               | 16                                       | 47.28                                    |                             | 97            |                     | 3                              |             | 58.68           |  |  |  |  |
| 29. Primary SIC Code (4 digits)                       |               | Secondary SIC C                          | ode                                      | 31. Primar<br>(5 or 6 digit | y NAICS Co    | de                  | <b>32. Seco</b><br>(5 or 6 dig | ndary NAIC  | CS Code         |  |  |  |  |
| 4952  |               |  |  | 221320                      |               |                     |                                |             |                 |  |  |  |  |
| 33. What is the Primary I                             | Business of   | this entity? (Do                         | not repeat the SIC o                     | r NAICS descr               | iption.)      |                     |                                |             |                 |  |  |  |  |
| Treatment of domestic waste                           | ewater.       |  |  |                             |               |                     |                                |             |                 |  |  |  |  |
|   |               |  |  |                             |               | 901 Texas Street    |                                |             |                 |  |  |  |  |
| 24 Mailing  | 901 Texas     | Street                                   |  | -                           |               |                     |                                |             |                 |  |  |  |  |
| 34. Mailing   | 901 Texas     | Street                                   |  |                             |               |                     |                                |             |                 |  |  |  |  |
| 34. Mailing Address:                                  |               | Street                                   | State                                    | TX                          | ZIP           | 76209               |                                | ZIP+4       | 4354            |  |  |  |  |
|   | Suite A  City |  |  | TX                          | ZIP           | 76209               |                                | ZIP+4       | 4354            |  |  |  |  |
| Address:  | Suite A  City | Denton                                   |  | 1                           |               | 76209<br>Fax Number | f (if applicab                 |             | 4354            |  |  |  |  |

**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.

TCEQ-10400 (11/22) Page 2 of 3

| Dam Safety            |                | Districts   | Edwards A           | quifer         |            | □ E   | missions Inv  | entory Air | ☐ Industrial Hazardous Waste                                |
|-----------------------|----------------|---|---------------------|----------------|------------|-------|---------------|------------|---|
| ☐ Municipal Solid     | Waste          | New Source<br>Review Air  | OSSF                |                |            | □P    | Petroleum Sto | orage Tank | □ PWS   |
| Sludge                |                | Storm Water   | ☐ Title V Air       |                |            | Пτ    | ires          |            | Used Oil  |
| ☐ Voluntary Clean     | lup            | <b>⊠</b> Wastewater   | ☐ Wastewate         | er Agriculi    | ture       | □v    | Water Rights  |            | Other:  |
| SECTION I             | IV: Pr         | wq0014416001<br>eparer Inf  | ormatio             | n              |            |       |               | -          |   |
| Т                     | drew Kanew     |   |                     |                | 41. Title: |       | Professional  | Engineer   |   |
| 42. Telephone Nur     | mber           | 43. Ext./Code   | 44. Fax Numbe       | er             | 45. E-M    | ail A | ddress        |            |   |
| (817)349-2829         |                |   | ( ) -               |                | andrew.k   | anew  | vske@kimley   | -horn.com  |   |
| 6. By my signature be | elow, I certif | thorized S<br>y, to the best of my kno<br>e entity specified in Sec | owledge, that the i | <br>informatio |            |       |               |            | e, and that I have signature authority ntified in field 39. |
| Company:              | City of De     | enton   |                     |                | Job Title: |       | City Manag    | ger        |   |
| Name (In Print):      | Sara Hens      | sley  |                     |                |            |       |               | Phone:     | (940)349-8307   |
| Signature:            |                | Jon   | dy                  |                |            |       |               | Date:      | 4/19/24   |

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# ATTACHMENT E: DOMESTIC TECHNICAL REPORT 1.0



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY DOMESTIC WASTEWATER PERMIT APPLICATION

#### DOMESTIC TECHNICAL REPORT 1.0

The Following Is Required For All Applications Renewal, New, And Amendment

## Section 1. Permitted or Proposed Flows (Instructions Page 51)

#### A. Existing/Interim I Phase

Design Flow (MGD): 2.5

2-Hr Peak Flow (MGD): <u>10.0</u>

Estimated construction start date: Spring 2025

Estimated waste disposal start date: Spring 2028

#### B. Interim II Phase

Design Flow (MGD): <u>5.0</u>

2-Hr Peak Flow (MGD): <u>20.0</u>

Estimated construction start date: Not known

Estimated waste disposal start date: Not known

#### C. Final Phase

Design Flow (MGD): 10.0

2-Hr Peak Flow (MGD): <u>40.0</u>

Estimated construction start date: <u>Not known</u>
Estimated waste disposal start date: <u>Not known</u>

## D. Current operating phase: N/A

Provide the startup date of the facility: N/A

## Section 2. Treatment Process (Instructions Page 51)

#### A. Treatment process description

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 in the permit, a description of** *each phase* **must be provided.** Process description:

Interim Phase 1: Raw wastewater will enter the headworks. The headworks will consist of coarse screens, grit chambers, and fine screens. Flow will then enter the two (2) primary clarifiers. Flow will then enter secondary treatment, consisting of four (4) MBR Trains. In each of the MBR trains, flow will go from the anoxic basin to anaerobic basin, then pre-aeration basin, and finally to the membrane basin. Flow will then be treated with UV disinfection before discharge. Wasting will occur in the primary clarifier and the membrane basin. Solids will enter two (2) anaerobic digesters before being dewatered with centrifuges. After dewatering solids will be composted.

Interim Phase 2: Raw wastewater will enter the headworks. The headworks will consist of coarse screens, grit chambers, and fine screens. Flow will then enter the two (2) primary clarifiers. Flow will then enter secondary treatment, consisting of eight (8) MBR Trains. In each of the MBR trains, flow will go from the anoxic basin to anaerobic basin, then pre-aeration basin, and finally to the membrane basin. Flow will then be treated with UV disinfection before discharge. Wasting will occur in the primary clarifier and the membrane basin. Solids will enter two (2) anaerobic digesters before being dewatered with centrifuges. After dewatering solids will be composted.

Final Phase 3: Raw wastewater will enter the headworks. The headworks will consist of coarse screens, grit chambers, and fine screens. Flow will then enter the four (4) primary clarifiers. Flow will then enter secondary treatment, consisting of sixteen (16) MBR Trains. In each of the MBR trains, flow will go from the anoxic basin to anaerobic basin, then pre-aeration basin, and finally to the membrane basin. Flow will then be treated with UV disinfection before discharge. Wasting will occur in the primary clarifier and the membrane basin. Solids will enter two (2) anaerobic digesters before being dewatered with centrifuges. After dewatering solids will be composted.

Port or pipe diameter at the discharge point, in inches: 42 in.

#### **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 | Dimensions (L x W x D)    |  |  |  |  |  |  |
|---------------------|-----------|---------------------------|--|--|--|--|--|--|
|                     | Units     | Or (Diameter x D)         |  |  |  |  |  |  |
| Phase 1             |           |                           |  |  |  |  |  |  |
| Primary Clarifier   | 2         | 110' Ø x 15' x 13' SWD    |  |  |  |  |  |  |
| Anoxic Basin        | 4         | 40' x 9' x 15' x 13' SWD  |  |  |  |  |  |  |
| Anaerobic Basin     | 4         | 38' x 9' x 15' x 13' SWD  |  |  |  |  |  |  |
| Pre-Aeration Basin  | 4         | 152' x 9' x 15' x 13' SWD |  |  |  |  |  |  |
| Membrane Basin      | 4         | 46' x 9' x 15' x 13' SWD  |  |  |  |  |  |  |
| Anaerobic Digester  | 2         | 90' Ø x 21' x 19' SWD     |  |  |  |  |  |  |
|                     | Phas      | se 2                      |  |  |  |  |  |  |
| Primary Clarifier   | 2         | 110' Ø x 15' x 13' SWD    |  |  |  |  |  |  |
| Anoxic Basin        | 8         | 40' x 9' x 15' x 13' SWD  |  |  |  |  |  |  |
| Anaerobic Basin     | 8         | 38' x 9' x 15' x 13' SWD  |  |  |  |  |  |  |
| Pre-Aeration Basin  | 8         | 152' x 9' x 15' x 13' SWD |  |  |  |  |  |  |
| Membrane Basin      | 8         | 46' x 9' x 15' x 13' SWD  |  |  |  |  |  |  |
| Anaerobic Digester  | 2         | 90' Ø x 21' x 19' SWD     |  |  |  |  |  |  |
| -                   | Phas      | se 3                      |  |  |  |  |  |  |
| Primary Clarifier   | 4         | 110' Ø x 15' x 13' SWD    |  |  |  |  |  |  |
| Anoxic Basin        | 16        | 40' x 9' x 15' x 13' SWD  |  |  |  |  |  |  |
| Anaerobic Basin     | 16        | 38' x 9' x 15' x 13' SWD  |  |  |  |  |  |  |
| Pre-Aeration Basin  | 16        | 152' x 9' x 15' x 13' SWD |  |  |  |  |  |  |
| Membrane Basin      | 16        | 46' x 9' x 15' x 13' SWD  |  |  |  |  |  |  |
| Anaerobic Digester  | 2         | 90' Ø x 21' x 19' SWD     |  |  |  |  |  |  |

#### C. Process flow diagrams

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

Attachment: Attachment N: Process Flow Diagram

#### Section 3. Site Drawing (Instructions Page 52)

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 O: Site Drawing

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

The Clear Creek Water Reclamation Plant will service the Clear Creek Wastewater Basin within the City of Denton. The basin covers approximately 39,400 acres. Land use by acreage is projected to be 620 for agricultural, 1,050 for commercial, 1,260 for industrial, 1,280 for public spaces/government, 20 for religious spaces, 5,670 for residential and 2,000 for rural application per the 2023 City of Denton Wastewater Masterplan.

## Section 4. Unbuilt Phases (Instructions Page 52)

| is the applic | ation for a renew | val of a permit that contains an unbuilt phase or                       |
|---------------|-------------------|---|
| phases?       |                   |   |
| Yes ⊠         | No □              |   |
|               | <b>U</b> .        | nit contain a phase that has not been constructed thorized by the TCEQ? |

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.

Clear Creek wastewater basin currently has no treatment capacity for wastewater. All flows for the basin are currently on septic and with planned growth for the area treatment capacity is needed for development. Denton will also alleviate surrounding basins by sending flow to Clear Creek Water Reclamation Plant.

| B. Buffer zones   |
|---|
| Have the buffer zone requirements been met? Yes $\boxtimes$ No $\square$  |
| 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.  Ownership.   |
| <u> </u>  |
| C. Other actions required by the current permit   |
| Does the <i>Other Requirements</i> or <i>Special Provisions</i> 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 $\square$ No $\boxtimes$       |
| If yes, provide information below on the status of any actions taken to meet the conditions of an <i>Other Requirement</i> or <i>Special Provision</i> .  |
| N/A   |
| D. Grit and grease treatment  |
| 1. Acceptance of grit and grease waste  |
| Does the facility have a grit and/or grease processing facility onsite that treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?  Yes $\square$ No $\boxtimes$                           |
| 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. |
| <u>N/A</u>  |

| 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 512-239-0000. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions. |
| Describe the method of grit disposal.  |
| N/A  |
| 4. Grease and decanted liquid disposal   |
| Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-0000.   |
| Describe how the decant and grease are treated and disposed of after grit separation.  |
| N/A  |
| E. Stormwater management   |
| 1. Applicability   |
| Does the facility have a design flow of 1.0 MGD or greater in any phase?   |
| Yes ⊠ No □   |
| Does the facility have an approved pretreatment program, under 40 CFR Part 403?  |
| Yes □ No ⊠   |

Received.

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

| 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 $\square$ No $\boxtimes$                            |
| If yes, please provide MSGP Authorization Number and skip to Subsection F, Other Wastes Received: TXR05 $\underline{\rm N/A}$ or TXRNE $\underline{\rm N/A}$  |
| If no, do you intend to seek coverage under TXR050000?  |
| Yes □ No ⊠  |
| 3. Conditional exclusion  |
| Alternatively, do you intend to apply for a conditional exclusion from permitting based TXR050000 (Multi Sector General Permit) Part II B.2 or TXR050000 (Multi Sector General Permit) Part V, Sector T 3(b)?  Yes □ No ☒ |
| If yes, please explain below then proceed to Subsection F, Other Wastes   |
| Received:   |
| N/A   |
| 4. Evictiva a consevação in individual necessit   |
| 4. Existing coverage in individual permit   |
| Is your stormwater discharge currently permitted through this individual TPDES or TLAP permit?  Yes □ No ⊠  |
| If yes, provide a description of stormwater runoff management practices at the site that are authorized in the wastewater permit then skip to Subsection F, Other Wastes Received.  |
| N/A   |

## 5. Zero stormwater discharge

| Do you intend to have no discharge of stormwater via use of evaporation or other means? Yes $\square$ No $\boxtimes$   |
|--|
| If yes, explain below then skip to Subsection F. Other Wastes Received.  N/A   |
| Note: If there is a potential to discharge any stormwater to surface water in the state as the result of any storm event, then permit coverage is required under the MSGP or an individual discharge permit. This requirement applies to all areas of facilities with treatment plants or systems that treat, store, recycle, or reclaim domestic sewage, wastewater or sewage sludge (including dedicated lands for sewage sludge disposal located within the onsite property boundaries) that meet the applicability criteria of above. You have the option of obtaining coverage under the MSGP for direct discharges, (recommended), or obtaining coverage under this individual permit. |
| 6. Request for coverage in individual permit   |
| Are you requesting coverage of stormwater discharges associated with your treatment plant under this individual permit? Yes $\square$ No $\boxtimes$   |
| If yes, provide a description of stormwater runoff management practices at the site for which you are requesting authorization in this individual wastewater permit and describe whether you intend to comingle this discharge with your treated effluent or discharge it via a separate dedicated stormwater outfall. Please also indicate if you intend to divert stormwater to the treatment plant headworks and indirectly discharge it to water in the state.   |
| N/A  |
| Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance   |

with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.

| F. | Discharges | to th  | e Lake   | Houston       | Waters! | hed |
|----|------------|--------|----------|---------------|---------|-----|
|    |            | CO CAA | - ALCIAL | - AAO GO COAA | ,,      |     |

Does the facility discharge in the Lake Houston watershed? Yes  $\square$  No  $\boxtimes$ 

If yes, a Sewage Sludge Solids Management Plan is required. See Example 5 in the instructions.

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

## 1. Acceptance of sludge from other WWTPs

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

Yes ⊠ No □

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

In addition, provide the date that the plant started accepting sludge 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.

Monthly sludge acceptance and  $BOD_5$  to be determine at later date. Acceptance of sludge from other WWTPs is anticipated to begin in Spring 2028. (Sewage Sludge Solids Management Plan not attached due to sludge acceptance and  $BOD_5$  being unknown).

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 a the date that the plant started accepting septic waste, 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 <sub>5</sub> concentration of the septic waste, and the design  |
| BOD <sub>5</sub> concentration of the influent from the collection system. Also note if  |
| this information has or has not changed since the last permit action.  N/A   |
| Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.  3. Acceptance of other wastes (not including septic, grease, grit, or RCRA, CERCLA or as discharged by IUs listed in Worksheet 6)   |
| Is the facility accepting or will it 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. |
| ction 7 Pollutant Analysis of Treated Effluent (Instructions   |

# Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

Is the facility in operation?

Yes □ No ⊠

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

If yes, provide effluent analysis data for the listed pollutants. *Wastewater treatment facilities* complete Table 1.0(2). *Water treatment facilities* discharging filter backwash water, complete Table 1.0(3).

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

Table 1.0(2) - Pollutant Analysis for Wastewater Treatment Facilities

| Pollutant                              | Average | Max   | No. of  | Sample | Sample    |
|--|---------|-------|---------|--------|-----------|
| ronutant                               | Conc.   | Conc. | Samples | Туре   | Date/Time |
| CBOD <sub>5</sub> , 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,               |         |       |         |        |           |
| umohs/cm, †                            |         |       |         |        |           |
| Oil & Grease, mg/l                     |         |       |         |        |           |
| Alkalinity (CaCO <sub>3</sub> )*, mg/l |         |       |         |        |           |

<sup>\*</sup>TPDES permits only

†TLAP permits only

Table 1.0(3) - Pollutant Analysis for Water Treatment Facilities

| Pollutant                    | Average | Max   | No. of  | Sample | Sample    |
|------------------------------|---------|-------|---------|--------|-----------|
|                              | Conc.   | Conc. | Samples | Type   | Date/Time |
| Total Suspended Solids, mg/l |         |       |         |        |           |

| Pollutant                             | Average<br>Conc. | Max<br>Conc. | No. of<br>Samples | Sample<br>Type | Sample<br>Date/Time |
|---------------------------------------|------------------|--------------|-------------------|----------------|---------------------|
| Total Dissolved Solids, mg/l          |                  |              |                   |                |                     |
| pH, standard units                    |                  |              |                   |                |                     |
| Fluoride, mg/l                        |                  |              |                   |                |                     |
| Aluminum, mg/l                        |                  |              |                   |                |                     |
| Alkalinity (CaCO <sub>3</sub> ), mg/l |                  |              |                   |                |                     |

## Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: William R. Willard

Facility Operator's License Classification and Level: Class A WW license

Facility Operator's License Number: <u>WW0000580</u>

# Section 9. Sewage Sludge Management and Disposal (Instructions Page 60)

#### A. Sludge disposal method

Identify the current or anticipated sludge disposal method or methods from the following list. Check all that apply.

| $\boxtimes$ | Permitted landfill  |
|-------------|---|
|             | Permitted or Registered land application site for beneficial use        |
|             | Land application for beneficial use authorized in the wastewater permit |
|             | Permitted sludge processing facility                                    |
| $\boxtimes$ | Marketing and distribution as authorized in the wastewater permit       |
| $\boxtimes$ | Composting as authorized in the wastewater permit                       |
|             | Permitted surface disposal site (sludge monofill)                       |
|             | Surface disposal site (sludge monofill) authorized in the wastewater    |
|             | permit  |

|                   | permitted s<br>written sta<br>treatment j   | d to another permitt<br>sludge processing fa<br>tement or contractu<br>plant or permitted s<br>st be included with t | cility. If you selected<br>al agreement from<br>ludge processing fa | ed this method, a                          |
|-------------------|---|--|---|--|
|                   | Other:                                      | ditte is ender toy),   |   |  |
| В. S              | Sludge dispo                                | sal site   |   |  |
|                   |   | City of Denton Peca  | an Creek Water Rec  | lamation Plant                             |
| TCEQ p            | ermit or reg                                | istration number: <u>W</u>   | Q0010027003   |  |
| County            | where dispo                                 | osal site is located: <u>I</u>   | Denton County   |  |
|                   | 5000  |  |   |  |
|                   |   | portation method   |   |  |
|                   |   | tation (truck, train,  |   |  |
| Name o            | of the hauler                               | City of Denton Soli  | <u>d Waste</u>  |  |
| Hauler            | registration                                | number: <u>24746</u>   |   |  |
| Sludge            | is transporte                               | ed as a:   |   |  |
| Ι                 | .iquid □                                    | semi-liquid $oxtimes$  | semi-solid □  | solid $\square$                            |
| Sectio            | n 10. F                                     | ermit Authoriza  | tion for Sewage   | Sludge Disposal                            |
|                   | Instruction                                 | is Page 60)  |   |  |
| A. I              | Beneficial us                               | e authorization  |   |  |
| sludge            | ne existing pe<br>for beneficia<br>s □ No ⊠ |  | rization for land ap  | plication of sewage                        |
| sludge            | are you requ<br>for beneficia<br>s □ No □   |  | his authorization to  | o land apply sewage                        |
| Sewage<br>the ins |   |  |   | cial Land Use of<br>ermit application (see |
| B. S              | Sludge proce                                | ssing authorization  | ı   |  |
| Does th           | ne existing p                               | ermit include author   | rization for any of   | the following sludge                       |

| _                             | sing, storage or disposal options?<br>dge Composting  | Yes □                    | No ⊠                |  |  |  |
|-------------------------------|---|--------------------------|---------------------|--|--|--|
|                               | rketing and Distribution of sludge  | Yes □                    | No ⊠                |  |  |  |
|                               |   |                          |                     |  |  |  |
| Slu                           | dge Surface Disposal or Sludge Monofill   | Yes □                    | No 🗵                |  |  |  |
| Ter                           | nporary storage in sludge lagoons   | Yes □                    | No ⊠                |  |  |  |
| continu<br>Applica<br>attache | If yes to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed <b>Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)</b> attached to this permit application?  Yes $\square$ No $\square$ |                          |                     |  |  |  |
| Sectio                        | n 11. Sewage Sludge Lagoons (I  | nstructio                | ns Page 61)         |  |  |  |
| Doe                           | es this facility include sewage sludge lagoo  | ns?                      |                     |  |  |  |
| Yes                           | s □ No ⊠  |                          |                     |  |  |  |
| If y                          | es, complete the remainder of this section.   | If no, proc              | eed to Section 12.  |  |  |  |
| A. I                          | ocation information   |                          |                     |  |  |  |
| each m                        | lowing maps are required to be submitted ap, provide the Attachment Number.  Original General Highway (County) Map:   | as part of t             | he application. For |  |  |  |
| A                             | Attachment: <u>N/A</u>  |                          |                     |  |  |  |
| • [                           | JSDA Natural Resources Conservation Serv  | ice Soil Ma <sub>l</sub> | <b>)</b> :          |  |  |  |
| A                             | Attachment: <u>N/A</u>  |                          |                     |  |  |  |
| • F                           | Federal Emergency Management Map:   |                          |                     |  |  |  |
| A                             | Attachment: <u>N/A</u>  |                          |                     |  |  |  |
| • S                           | ite map:  |                          |                     |  |  |  |
| A                             | Attachment: <u>N/A</u>  |                          |                     |  |  |  |
| Discuss                       | s in a description if any of the following ex   | ist within t             | he lagoon area.     |  |  |  |
| Check a                       | 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  |
| Attacl | iment: N/A   |
| plain, | rtion of the lagoon(s) is located within the 100-year frequency flood provide the protective measures to be utilized including type and size of tive structures: |
| N/A    | ,  |
|        |  |
|        | ,  |

#### **B.** Temporary storage information

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

Nitrate Nitrogen, mg/kg: N/A

Total Kjeldahl Nitrogen, mg/kg: N/A

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

Phosphorus, mg/kg: N/A

Potassium, mg/kg: N/A

pH, standard units: N/A

Ammonia Nitrogen mg/kg: <u>N/A</u>

Arsenic: N/A

Cadmium: N/A

Chromium: N/A

Copper: N/A

Lead: N/A

Mercury: <u>N/A</u>

Molybdenum: N/A

Nickel: N/A

Selenium: N/A

Zinc: N/A

Total PCBs: N/A Provide the following information: Volume and frequency of sludge to the lagoon(s): N/A Total dry tons stored in the lagoons(s) per 365-day period: N/A Total dry tons stored in the lagoons(s) over the life of the unit: N/A C. Liner information Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of 1x10<sup>-7</sup> cm/sec? Yes □ No □ If yes, describe the liner below. Please note that a liner is required. N/A D. Site development plan Provide a detailed description of the methods used to deposit sludge in the lagoon(s): N/AAttach the following documents to the application. • Plan view and cross-section of the sludge lagoon(s) Attachment: N/A • Copy of the closure plan Attachment: N/A

• Copy of deed recordation for the site

Attachment: N/A

 Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

Attachment: N/A

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

Procedures to prevent the occurrence of nuisance conditions

Attachment: N/A

#### E. Groundwater monitoring

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

Yes □ No □

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

Attachment: N/A

# Section 12. Authorizations/Compliance/Enforcement (Instructions Page 63)

#### A. Additional authorizations

| Does the permittee have addition | nal authoriza | ations for this | facility, | such as |
|----------------------------------|---------------|-----------------|-----------|---------|
| reuse authorization, sludge peri | mit, etc?     |                 |           |         |

Yes ⊠

No 🗆

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

| Reuse Authorization #R10027-003 | 3            |  |
|---------------------------------|--------------|--|
|                                 | <del>-</del> |  |
|                                 |              |  |
|                                 |              |  |
|                                 |              |  |
|                                 |              |  |

#### B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

Yes □ No ⊠

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

Yes □ No ⊠

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

| N/A | - |  |  |
|-----|---|--|--|
|     |   |  |  |
|     |   |  |  |
|     |   |  |  |
|     |   |  |  |

#### Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

#### A. RCRA hazardous wastes

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

Yes □ No ⊠

#### B. Remediation activity wastewater

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

Yes □ No ⊠

#### C. Details about wastes received

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

Attachment: N/A

#### Section 14. Laboratory Accreditation (Instructions Page 64)

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

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

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

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

#### **CERTIFICATION:**

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

Printed Name: Sara Hensley

Title: City Manager

Signature:

Date:

# ATTACHMENT F: DOMESTIC TECHNICAL REPORT 1.1

#### DOMESTIC TECHNICAL REPORT 1.1

The following is required for new and amendment applications

#### Section 1. Justification for Permit (Instructions Page 66)

#### 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.

Based on the 2023 City of Denton Wastewater Masterplan for the City of Denton, the permit renewal, expansion of capacity, and three planned phases are required. With the expected growth to reach approximately 12,000 developed acres, the City needs to have the treatment capacity to serve the growth and transition from septic. Clear Creek Water Reclamation Plant will also relieve flow from surrounding wastewater basins.

#### B. Regionalization of facilities

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

#### 1. Municipally incorporated areas

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

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

Yes □ No □ Not Applicable ⊠

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

If yes, attach correspondence from the city.

Attachment: N/A

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

Attachment: N/A

## 2. Utility CCN areas

| Is any portion of the proposed service area located inside another utility's CCN area?  |
|---|
| Yes □ No ⊠  |
| If yes, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the CCN facilities versus the cost of the proposed facility or expansion.  |
| Attachment: <u>N/A</u>  |
| 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  No  |
| If yes, attach a list of these facilities that includes the permittee's name and permit number, and an area map showing the location of these facilities.   |
| Attachment: <u>N/A</u>  |
| If yes, attach copies of your certified letters to these facilities and their response letters concerning connection with their system.   |
| Attachment: <u>N/A</u>  |
| Does a permitted domestic wastewater treatment facility or a collection system located within three (3) miles of the proposed facility currently have the capacity to accept or is willing to expand to accept the volume of wastewater proposed in this application?  Yes $\square$ No $\boxtimes$ |
| If yes, attach an analysis of expenditures required to connect to a permitted wastewater treatment facility or collection system located within 3 miles versus the cost of the proposed facility or expansion.  |
| Attachment: <u>N/A</u>  |
| Section 2. Organic Loading (Instructions Page 67)   |
| occupit in organic Bouning (morractions tage or   |

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

No ⊠

Is this facility in operation?

Yes □

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

#### A. Current organic loading

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

Average Influent Organic Strength or BOD<sub>5</sub> Concentration in mg/l: N/A

Average Influent Loading (lbs/day = total average flow X average BOD<sub>5</sub> conc. X 8.34): N/A

Provide the source of the average organic strength or BOD5 concentration. N/A

#### B. Proposed organic loading

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

Table 1.1(1) - Design Organic Loading

| Source                               | Total Average Flow<br>(MGD) | Influent BOD <sub>5</sub> Concentration (mg/l) |
|--------------------------------------|-----------------------------|--|
| Municipality                         | 10                          |  |
| Subdivision                          |                             |  |
| Trailer park - transient             |                             |  |
| Mobile home park                     |                             |  |
| School with cafeteria and showers    |                             |  |
| School with cafeteria,<br>no showers |                             |  |
| Recreational park,                   |                             |  |

| Source                                    | Total Average Flow<br>(MGD) | Influent BOD <sub>5</sub> Concentration (mg/l) |
|---|-----------------------------|--|
| overnight use                             |                             |  |
| Recreational park, day use                | e e                         |  |
| Office building or factory                |                             |  |
| Motel                                     |                             |  |
| Restaurant                                |                             |  |
| Hospital                                  |                             |  |
| Nursing home                              |                             |  |
| Other                                     |                             |  |
| TOTAL FLOW from all sources               | 10                          |  |
| AVERAGE BOD <sub>5</sub> from all sources |                             | 313.92   |

# Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 68)

## A. Existing/Interim I Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l:  $\underline{5}$ 

Total Suspended Solids, mg/l: 5

Ammonia Nitrogen, mg/l:  $\underline{1}$ 

Total Phosphorus, mg/l: 0.5

Dissolved Oxygen, mg/l:  $\underline{5}$ 

Other: N/A

## B. Interim II Phase Design Effluent Quality Biochemical Oxygen Demand (5-day), mg/l: 5 Total Suspended Solids, mg/l: 5 Ammonia Nitrogen, mg/l: 1 Total Phosphorus, mg/l: 0.5 Dissolved Oxygen, mg/l: 5 Other: N/A C. Final Phase Design Effluent Quality Biochemical Oxygen Demand (5-day), mg/l: 5 Total Suspended Solids, mg/l: 5 Ammonia Nitrogen, mg/l: $\underline{1}$ Total Phosphorus, mg/l: 0.5 Dissolved Oxygen, mg/l: 5 Other: N/A D. Disinfection Method Identify the proposed method of disinfection. Chlorine: mg/l after minutes detention time at peak flow Dechlorination process: Ultraviolet Light: 45 seconds contact time at peak flow

## Section 4. Design Calculations (Instructions Page 68)

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

Attachment: Attachment Q: Design Calculations and Features

Other:

## Section 5. Facility Site (Instructions Page 68)

# A. 100-year floodplain Will the proposed facilities be located <u>above</u> 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

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

FEMA Flood Map Service Center. Reference firm 48121C0240G and 481210245G.

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

Yes □ No ⊠

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

Yes □ No □

If yes, provide the permit number: N/A

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

#### B. Wind rose

Attach a wind rose. Attachment: Attachment S: Wind Rose

# Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 69)

#### 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)

Attachment: N/A

#### B. Sludge processing authorization

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

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

If any of the above sludge options are selected, attach a completed DOMESTIC WASTEWATER PERMIT APPLICATION: SEWAGE SLUDGE TECHNICAL REPORT (TCEQ Form No. 10056).

Attachment: Attachment U: Sewage Sludge Technical Report

## Section 7. Sewage Sludge Solids Management Plan (Instructions Page 69)

Attach a solids management plan to the application.
Attachment: Attachment R: Solids Management Plan

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

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

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

# ATTACHMENT G: DOMESTIC TECHNICAL WORKSHEET 2.0

### **DOMESTIC TECHNICAL REPORT WORKSHEET 2.0**

### **RECEIVING WATERS**

The following is required for all TPDES permit applications

| Section 1. Domestic Drinking water Supply (Instructions Page 73)   |
|--|
| 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 $\square$ No $\boxtimes$ |
| If yes, provide the following: Owner of the drinking water supply: $N/A$   |
| Distance and direction to the intake: $N/A$  |
| Attach a USGS map that identifies the location of the intake.  |
| Attachment: $N/A$  |
| Section 2. Discharge into Tidally Affected Waters (Instructions Page 73)   |
| Does the facility discharge into tidally affected waters?  |
| Yes $\square$ No $\boxtimes$ 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: $\underline{N/A}$  |
| B. Oyster waters   |
| Are there oyster waters in the vicinity of the discharge?  |
| Yes □ No ⊠   |
| If yes, provide the distance and direction from outfall(s).  |
| N/A  |

| C. Se       | ea grasses  |
|-------------|---|
| Are         | there any sea grasses within the vicinity of the point of discharge?              |
|             | Yes □ No ⊠  |
| If ye       | es, provide the distance and direction from the outfall(s).                       |
| N/A         | A   |
| Section     | 1 3. Classified Segments (Instructions Page 73)                                   |
| Is the di   | ischarge directly into (or within 300 feet of) a classified segment?              |
|             | Yes □ No ⊠  |
| If yes, t   | his Worksheet is complete.  |
| If no, co   | omplete Sections 4 and 5 of this Worksheet.                                       |
|             | 1 4. Description of Immediate Receiving Waters                                    |
|             | nstructions Page 75)  |
| Nam         | ne of the immediate receiving waters: <u>Clear Creek.</u>                         |
| A. R        | eceiving water type   |
| Iden        | tify the appropriate description of the receiving waters.                         |
| $\boxtimes$ | Stream  |
|             | Freshwater Swamp or Marsh   |
|             | Lake or Pond  |
|             | Surface area, in acres:   |
|             | Average depth of the entire water body, in feet:                                  |
|             | Average depth of water body within a 500-foot radius of discharge point, in feet: |
|             | Man-made Channel or Ditch   |

|                      | Open Bay   |
|----------------------|--|
|                      | Tidal Stream, Bayou, or Marsh  |
|                      | Other, specify: <u>N/A</u>   |
| B. Fl                | ow characteristics   |
| followin<br>characte | am, man-made channel or ditch was checked above, provide the e.g. For existing discharges, check one of the following that best erizes the area <i>upstream</i> of the discharge. For new discharges, erize the area <i>downstream</i> 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   |
|                      | he method used to characterize the area upstream (or downstream for chargers). USGS flow records   |
|                      | Historical observation by adjacent landowners  |
|                      | Personal observation   |
|                      | Other, specify:  |
| C. D                 | ownstream perennial confluences  |
| List the             | names of all perennial streams that join the receiving water within iles downstream of the discharge point.  |
| D. D                 | ownstream characteristics  |
|                      | receiving water characteristics change within three miles downstream of harge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?  Yes $\square$ No $\boxtimes$   |
| If yes, d            | liscuss how.   |

| N/A                |   |             |   |
|--------------------|---|-------------|---|
| E. N               | Normal dry weather chara                      | cteristi    | ics   |
| Provide<br>conditi | •   | he wate     | r body during normal dry weather                                |
| 50.774             | tream is intermittent and c<br>er conditions. | lry with    | perennial pools during normal dry                               |
| Date a             | nd time of observation: <u>12</u>             | /8/2023     | 3   |
| Was th             | e water body influenced by                    | y storm     | water runoff during observations?                               |
|                    | Yes □ No ⊠                                    |             |   |
|                    | on 5. General Characte<br>Page 74)            | ristics     | of the Waterbody (Instructions                                  |
| A. U               | Upstream influences                           |             |   |
| Is the i           | mmediate receiving water                      |             | om of the discharge or proposed ollowing? Check all that apply. |
|                    | Oil field activities                          |             | Urban runoff  |
|                    | Upstream discharges                           | $\boxtimes$ | Agricultural runoff   |
|                    | Septic tanks                                  |             | Other(s), specify   |
|                    |   |             |   |
| В. Т               | Waterbody uses                                |             |   |
|                    | ed or evidences of the foll                   | owing u     | ises. Check all that apply.                                     |
|                    | Livestock watering                            |             | Contact recreation  |
|                    | Irrigation withdrawal                         |             | Non-contact recreation  |
|                    | Fishing                                       |             | Navigation  |

|             | Domestic water supply   |       | Industrial water supply                             |  |
|-------------|---|-------|---|--|
|             | Park activities   |       | Other(s), specify                                   |  |
| +44         |   |       |   |  |
| C. V        | Waterbody aesthetics  |       |   |  |
|             | eck one of the following that<br>eiving water and the surroun   |       | describes the aesthetics of the area.               |  |
|             | Wilderness: outstanding na area; water clarity exception  |       | beauty; usually wooded or unpastured                |  |
| $\boxtimes$ | Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored |       |   |  |
|             | Common Setting: not offen be colored or turbid  | sive; | developed but uncluttered; water may                |  |
|             | Offensive: stream does not developed; dumping areas   |       | ance aesthetics; cluttered; highly<br>er discolored |  |

# ATTACHMENT H: DOMESTIC TECHNICAL WORKSHEET 2.1

### **DOMESTIC WORKSHEET 2.1**

#### STREAM PHYSICAL CHARACTERISTICS

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

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

| Section 1. General Information (Instructions Page 75)  |  |  |  |
|--|--|--|--|
| Date of study: <u>12/8/2021</u> Time of study: <u>7:00 AM</u>  |  |  |  |
| Stream name: <u>Clear Creek</u>  |  |  |  |
| Location: <u>33.2792 North, -97.0671 West</u>  |  |  |  |
| Type of stream upstream of existing discharge or downstream of proposed discharge (check one).  □ Perennial □ Intermittent with perennial pools  |  |  |  |
| Section 2. Data Collection (Instructions Page 75)  |  |  |  |
| Number of stream bends that are well defined: $\underline{3}$  |  |  |  |
| Number of stream bends that are moderately defined: $\underline{1}$  |  |  |  |
| Number of stream bends that are poorly defined: $\underline{0}$  |  |  |  |
| Number of riffles: 2   |  |  |  |
| Evidence of flow fluctuations (check one):   |  |  |  |
| □ Minor □ moderate ⊠ severe  |  |  |  |
| Indicate the observed stream uses and if there is evidence of flow fluctuations or channel obstruction/modification.  Based on size of sidewall banks, there is evidence the stream flows much higher during peak rainfall events. |  |  |  |

Stream transects

each transect.

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

Table 2.1(1) - Stream Transect Records

| Stream type at transect Select riffle, run, glide, or pool. See Instructions, Definitions section. | Transect location | Water<br>surface<br>width<br>(ft) | Stream depths (ft)  at 4 to 10 points along each transect from the channel bed to the water surface. Separate the measurements with commas. |
|--|-------------------|-----------------------------------|---|
| run  | Discharge Point   | 10                                | 0.17, 0.25, 0.25, 0.17  |
| riffle   | Transect 2        | 6                                 | 0.17, 0.25, 0.417, 0.25   |
| riffle   | Transect 3        | 8                                 | 0.17, 0.417, 0.33, 0.33   |
| run  | Transect 4        | 17                                | 1.5, 1, 0.58, 0.17  |

### Section 3. Summarize Measurements (Instructions Page 76)

Streambed slope of entire reach, from USGS map in feet/feet: 0.0.0027 ft/ft

Approximate drainage area above the most downstream transect (from USGS map or county highway map, in square miles): 340 square Miles

Length of stream evaluated, in feet: 6,000 ft

Number of lateral transects made: 4

Average stream width, in feet: 10.25 ft

Average stream depth, in feet: 0.4 ft

Average stream velocity, in feet/second: 1.04 fps

Instantaneous stream flow, in cubic feet/second: 2.07 cfs

Indicate flow measurement method (type of meter, floating chip timed over a

fixed distance, etc.): Chip timed over fixed distance.

Size of pools (large, small, moderate, none): Moderate

Maximum pool depth, in feet: 1.5 ft

# ATTACHMENT I: DOMESTIC TECHNICAL WORKSHEET 6.0

#### **DOMESTIC WORKSHEET 6.0**

#### INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works (POTWs)

### Section 1. All POTWs (Instructions Page 99)

#### A. Industrial users

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 IIIe

| and Other ios.  |
|---|
| If there are no users, enter 0 (zero).  |
| Categorical IUs:  |
| Number of IUs: <u>0</u>   |
| Average Daily Flows, in MGD: <u>0</u>   |
| Significant IUs - non-categorical:  |
| Number of IUs: <u>0</u>   |
| Average Daily Flows, in MGD: <u>0</u>   |
| Other IUs:  |
| Number of IUs: <u>0</u>   |
| Average Daily Flows, in MGD: <u>0</u>   |
| 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?  |

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

No 🗵

**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 100)

#### A. Substantial modifications

Yes □

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

Yes □ No □

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

| N/A   |
|---|
| B. Non-substantial modifications  |
| Have there been any <b>non-substantial modifications</b> to the approved pretreatment program that have not been submitted to TCEQ for review and acceptance? |
| Yes □ No □  |
| If yes, identify all non-substantial modifications that have not been submitted to TCEQ, including the purpose of the modification.                           |
| N/A   |
| C. Effluent parameters above the MAL  |
| In Table 6.0(1), list all parameters measured above the MAL in the POTW's effluent monitoring during the last three years. Submit an attachment if            |

### Table 6.0(1) - Parameters Above the MAL

| Pollutant | Concentration | MAL | Units | Date |
|-----------|---------------|-----|-------|------|
|           |               | _   |       |      |
|           |               |     |       |      |
|           |               |     |       |      |
|           |               |     |       |      |
|           |               |     |       |      |
|           |               |     |       |      |
| 4 1100000 |               |     |       |      |
|           |               |     |       |      |

necessary.

| 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 □  |
| <b>If yes</b> , identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.                |
| N/A   |
| Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 100)  |
| A. General information  |
| Company Name: <u>N/A</u>  |
| SIC Code: <u>N/A</u>  |
| Telephone number: <u>N/A</u> Fax number:  |
| Contact name: <u>N/A</u>  |
| Address: <u>N/A</u>   |
| City, State, and Zip Code: <u>N/A</u>   |
| 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 informati                              | on                   |                   | -      |                |
| See the Instructions for de                         | efinitions of "proc  | ess" and "non-p   | roces  | s wastewater." |
| Process Wastewater:                                 |                      |                   |        |                |
| Discharge, in gallon                                | s/day: <u>N/A</u>    |                   |        |                |
| Discharge Type: □                                   | Continuous 🗆         | Batch             |        | Intermittent   |
| Non-Process Wastewater:                             |                      |                   |        |                |
| Discharge, in gallon                                | s/day: <u>N/A</u>    |                   |        |                |
| Discharge Type: □                                   | Continuous $\square$ | Batch             |        | Intermittent   |
| E. Pretreatment stand                               | ards                 |                   |        |                |
| Is the SIU or CIU subject to instructions?          | o technically base   | d local limits as | defin  | ed in the      |
| Yes □ N   | o 🗵                  |                   |        |                |
| Is the SIU or CIU subject to<br>Parts 405-471?      | o categorical pret   | reatment standa   | rds fo | ound in 40 CFR |
| Yes □ N   | o 🗵                  |                   |        |                |
| If subject to categorical pactegory and subcategory |                      |                   | the ap | plicable       |
| Category: <u>N/A</u><br>Subcategories: <u>N/A</u>   |                      |                   |        |                |
| Category: <u>N/A</u><br>Subcategories: <u>N/A</u>   |                      |                   |        |                |
| Category: <u>N/A</u><br>Subcategories: <u>N/A</u>   |                      |                   |        |                |
| Category: <u>N/A</u><br>Subcategories: <u>N/A</u>   |                      |                   |        |                |
| Category: <u>N/A</u><br>Subcategories: <u>N/A</u>   |                      |                   |        |                |

| F   | . Industri | ial use | r interrup | tions      |          |           |       |
|-----|------------|---------|------------|------------|----------|-----------|-------|
| ıs  | the SIU or | CIU ca  | aused or c | ontributed | to any p | roblems ( | e.g., |
| ~ ~ | through    | odono   | COMMODION  | blooknoon  | ) at *** | DOTM:     | tha.  |

|    |      | d or contributed to any problems (e.g., rosion, blockages) at your POTW in the |  |
|----|------|--|--|
| Ye | es 🗆 | No ⊠   |  |

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

| N/A | 7.0 |       |  |
|-----|-----|-------|--|
|     |     |       |  |
|     |     |       |  |
|     |     |       |  |
|     |     |       |  |
|     |     | 10.00 |  |

ATTACHMENT J: ORIGINAL USGS MAP



Photo 1: North View



Photo 2: South View



Photo 3: Discharge Point, Upstream



Photo 4: Discharge Point, Front



Photo 5: Discharge Point, Downstream

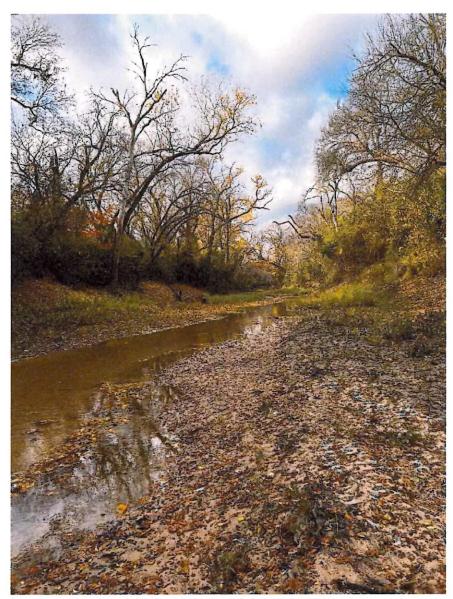


Photo 6: Transect 2, Upstream



Photo 7: Transect 2, Front



Photo 8: Transect 2, Downstream



Photo 9: Transect 3, Upstream



Photo 10: Transect 3, Front



Photo 11: Transect 3, Downstream



Photo 12: Transect 4, Upstream



Photo 13: Transect 4, Front



Photo 14: Transect 4, Downstream

# ATTACHMENT Q: DESIGN CALCULATIONS AND FEATURES

| Summary Table of Phase 1 Design     |                 |           |
|-------------------------------------|-----------------|-----------|
| Part 1 of 2                         |                 |           |
| Design parameter                    | Unit            | Value     |
| Average Flowrate                    | MGD             | 2.5       |
| Peak Flowrate                       | MGD             | 10        |
| BOD                                 | mg/L            | 313.92    |
| TSS                                 | mg/L            | 454       |
| NOX                                 | mg/L            | 28.9      |
| Primary Clarifier                   | Unit            | Value     |
| Number of Clarifiers                | #               | value 2   |
| Clarifier Diameter                  | ft              | 110       |
| Clarifier Area                      | ft <sup>2</sup> | 9503      |
| Weir Length                         | ft              | 346       |
| Side Water Depth of Clarifier       | ft              | 13        |
| Clarifier Volume                    | ft <sup>3</sup> | 123543    |
| Clarifer Flow @ ADF                 | gpd             | 2500000   |
| Clarifier Flow @ Peak Flow          | gpd             | 10000000  |
|                                     |                 |           |
| MBR Trains                          | Unit            | Value     |
| Number of Trains                    | _               | 4         |
|                                     |                 |           |
| Preaeration Basin                   | Unit            | Value     |
| Volume                              | ft³             | 71006     |
| Detention Time                      | h               | 5.15      |
| MLSS                                | mg/L            | 12000     |
| MLVSS                               | mg/L            | 9480      |
| Oxygen demand                       | lb/h            | 492.50    |
| Aeration rate                       | ft³/min         | 5453.28   |
| Membrane Basin                      | Unit            | Value     |
| Volume                              | ft <sup>3</sup> | 21426.4   |
| Hydraulic Detention Time            | hr              | 1.55      |
| MLSS                                | mg/L            | 12000.0   |
| MLVSS                               | mg/L            | 9480.0    |
| Oxygen demand                       | lb/h            | 54.72     |
| Aeration rate (for O <sub>2</sub> ) | ft³/min         | 37.83     |
| Average Day Membrane Flux           | gfd             | 2477292.3 |
| Peak Day Membrane Flux              | gfd             | 9909169.2 |
| Membrane Area                       | ft²             | 261230.2  |
| RAS ratio                           | =               | 6.0       |
| RAS flowrate                        | ft³/day         | 2005208.3 |

| Summary Table of Phase 1 Design  |                   |         |
|--|-------------------|---------|
| Part 2 of 2  |                   |         |
| Anaerobic Basin  | Unit              | Value   |
| Volume   | ft <sup>3</sup>   | 17751   |
| Detention Time   | h                 | 1.29    |
|  |                   |         |
| Anoxic Basin   | Unit              | Value   |
| Effluent NO <sub>3</sub> -N  | mg/L              | 4.1     |
| Volume   | ft <sup>3</sup>   | 18486   |
| Detention Time   | h                 | 1.340   |
| MLSS.  | mg/L              | 10286   |
| Overall SDNR   | g NO₃-N/g MLVSS·d | 0.177   |
| Mixing power   | kW                | 4.19    |
| Alkalinity required as CaCO <sub>3</sub>   | lb/d              | 991     |
|  |                   |         |
| Anaerobic Digester   | Unit              | Value   |
| Number of Digesters  | #                 | 2       |
| Digester Diameter  | ft                | 90      |
| Digester Area  | ft²               | 6361.7  |
| Side Water Depth of Digester   | ft                | 19      |
| Digester Volume  | ft <sup>3</sup>   | 120873  |
| Influent TSS   | mg/L              | 10286   |
| TSS Removal Efficiency   | %                 | 45      |
| Specific Gravity   | ~                 | 1.02    |
| Total Sludge Mass  | lb/d              | 9268.0  |
| Total Sludge Volume  | gpd               | 21176.0 |
| Donata da constitución de la con | 11                | Value   |
| Dewatering and Composting  | Unit              | Value   |
| Influent Sludge Mass   | lb/d              | 9268    |
| Influent Solids Weight %   | %                 | 4.00%   |
| Effluent Solids Weight %   | %                 | 17%     |
| Compost Solids Mass  | lb/d              | 370.7   |
| Compost Flow Mass  | lb/d              | 2180.7  |
| Flow Back to Headworks Mass  | gpd               | 18995   |
| UV Basin   | Unit              | Value   |
| Number of Channel  | #                 | 2       |
| Approach Channel   | ft                | 4       |
| Downstream Channel   | ft                | 4       |

×

| Part 1 of 2           Design parameter         Unit           Average Flowrate         MGD           Peak Flowrate         MGD           BOD         mg/L           TSS         mg/L           NOX         mg/L           Primary Clarifier         Unit           Number of Clarifiers         #           Clarifier Diameter         ft           Clarifier Area         ft² |    |
|--|----|
| Average Flowrate MGD Peak Flowrate MGD BOD mg/L TSS mg/L NOX mg/L  Primary Clarifier Unit Number of Clarifiers # Clarifier Diameter ft   |    |
| Peak Flowrate MGD BOD mg/L TSS mg/L NOX mg/L  Primary Clarifier Unit  Number of Clarifiers # Clarifier Diameter ft   |    |
| BOD mg/L TSS mg/L NOX mg/L  Primary Clarifier Unit  Number of Clarifiers # Clarifier Diameter ft   |    |
| TSS mg/L NOX mg/L Primary Clarifier Unit Number of Clarifiers # Clarifier Diameter ft  |    |
| NOX mg/L  Primary Clarifier Unit  Number of Clarifiers #  Clarifier Diameter ft  |    |
| Primary Clarifier Unit Number of Clarifiers # Clarifier Diameter ft  |    |
| Number of Clarifiers # Clarifier Diameter ft   |    |
| Number of Clarifiers # Clarifier Diameter ft   |    |
|  |    |
| Clarifier Area ft <sup>2</sup>   |    |
|  |    |
| Weir Length ft   |    |
| Side Water Depth of Clarifier ft   |    |
| Clarifier Volume ft <sup>3</sup>   |    |
| Clarifer Flow @ ADF gpd  |    |
| Clarifier Flow @ Peak Flow gpd   |    |
| MBR Trains Unit  | 2  |
| Number of Trains -   |    |
| Number of Italits -  |    |
| Preaeration Basin Unit   |    |
| Volume ft <sup>3</sup>   |    |
| Detention Time h   |    |
| MLSS mg/L  |    |
| MLVSS mg/L   |    |
| Oxygen demand lb/h   |    |
| Aeration rate ft³/min  |    |
| Membrane Basin Unit  |    |
| Volume ft <sup>3</sup>   |    |
| Hydraulic Detention Time hr  |    |
| MLSS mg/L  |    |
| MLVSS mg/L   |    |
| Oxygen demand lb/h   |    |
| Aeration rate (for $O_2$ ) $ft^3$ /min   |    |
| Average Day Membrane Flux gfd  |    |
| Peak Day Membrane Flux gfd   | 19 |
| Membrane Area ft <sup>2</sup>  | 1: |
| RAS ratio -  |    |
| RAS flowrate ft <sup>3</sup> /day  |    |

| Part 2 of 2                              |                   |       |
|--|-------------------|-------|
| Anaerobic Basin                          | Unit              | Val   |
| Volume                                   | ft <sup>3</sup>   | 355   |
| Detention Time                           | <u>h</u>          | 0.    |
| Anoxic Basin                             | Unit              | Val   |
| Effluent NO <sub>3</sub> -N              | mg/L              |       |
| Volume                                   | ft <sup>3</sup>   | 369   |
| Detention Time                           | h                 | 1.3   |
| MLSS                                     | mg/L              | 102   |
| Overall SDNR                             | g NO₃-N/g MLVSS·d | 0.1   |
| Mixing power                             | kW                | 8.    |
| Alkalinity required as CaCO <sub>3</sub> | lb/d              | 19    |
| Anaerobic Digester                       | Unit              | Val   |
| Number of Digesters                      | #                 | Vai   |
| Digester Diameter                        | ft                |       |
| Digester Area                            | ft²               | 636   |
| Side Water Depth of Digester             | ft                |       |
| Digester Volume                          | ft³               | 1208  |
| Influent TSS                             | mg/L              | 102   |
| TSS Removal Efficiency                   | %                 |       |
| Specific Gravity                         | -                 | 1.    |
| Total Sludge Mass                        | lb/d              | 1853  |
| Total Sludge Volume                      | gpd               | 42352 |
| Dewatering and Composting                | Unit              | Val   |
| Influent Sludge Mass                     | lb/d              | 185   |
| Influent Solids Weight %                 | %                 | 4.00  |
| Effluent Solids Weight %                 | %                 | 1     |
| Compost Solids Mass                      | lb/d              | 74:   |
| Compost Flow Mass                        | lb/d              | 436:  |
| Flow Back to Headworks Mass              | gpd               | 379   |
| UV Basin                                 | Unit              | Val   |
| Number of Channel                        | #                 |       |
| Approach Channel                         | ft                |       |
| Downstream Channel                       | ft                |       |

| Summary Table of Phase 3 Design        |                 |               |
|--|-----------------|---------------|
| Part 1 of 2                            |                 |               |
| Design parameter                       | Unit            | Value         |
| Average Flowrate                       | MGD             | 10            |
| Peak Flowrate                          | MGD             | 40            |
| BOD                                    | mg/L            | 313.92        |
| TSS                                    | mg/L            | 454           |
| NOX                                    | mg/L            | 28.9          |
| Duimant Clavifica                      | Unit            | Value         |
| Primary Clarifier Number of Clarifiers | #               | Value         |
|  |                 | 110           |
| Clarifier Diameter                     | ft<br>ft²       |               |
| Clarifier Area                         | 12020           | 9503          |
| Weir Length                            | ft<br>f:        | 346           |
| Side Water Depth of Clarifier          | ft              | 13            |
| Clarifier Volume                       | ft³             | 123543        |
| Clarifer Flow @ ADF                    | gpd             | 10000000      |
| Clarifier Flow @ Peak Flow             | gpd             | 4000000       |
| MBR Trains                             | Unit            | Value         |
| Number of Trains                       |                 | 16            |
| D                                      | 11(2            | Value         |
| Preaeration Basin                      | Unit<br>ft³     | Value         |
| Volume                                 | \$170<br>27     | 284024        |
| Detention Time                         | h               | 5.15          |
| MLSS                                   | mg/L            | 12000<br>9480 |
| MLVSS                                  | mg/L            |               |
| Oxygen demand                          | lb/h            | 327.73        |
| Aeration rate                          | ft³/min         | 3628.79       |
| Membrane Basin                         | Unit            | Value         |
| Volume                                 | ft <sup>3</sup> | 85705.4       |
| Hydraulic Detention Time               | hr              | 1.55          |
| MLSS                                   | mg/L            | 12000.0       |
| MLVSS                                  | mg/L            | 9480.0        |
| Oxygen demand                          | lb/h            | 36.41         |
| Aeration rate (for O <sub>2</sub> )    | ft³/min         | 25.18         |
| Average Day Membrane Flux              | gfd             | 9909169.2     |
| Peak Day Membrane Flux                 | gfd             | 19818338.3    |
| Membrane Area                          | ft²             | 1044920.7     |
| RAS ratio                              |                 | 6.0           |
| RAS flowrate                           | ft³/day         | 4010416.7     |

| Summary Table of Phase 3 Design          |                   |         |
|--|-------------------|---------|
| Part 2 of 2                              |                   |         |
| Anaerobic Basin                          | Unit              | Value   |
| Volume                                   | ft <sup>3</sup>   | 71006   |
| Detention Time                           | h                 | 0.64    |
|  |                   |         |
| Anoxic Basin                             | Unit              | Value   |
| Effluent NO <sub>3</sub> -N              | mg/L              | 4.1     |
| Volume                                   | ft³               | 73946   |
| Detention Time                           | h                 | 1.340   |
| MLSS                                     | mg/L              | 10286   |
| Overall SDNR                             | g NO₃-N/g MLVSS·d | 0.177   |
| Mixing power                             | kW                | 16.75   |
| Alkalinity required as CaCO <sub>3</sub> | lb/d              | 3962    |
|  |                   |         |
| Anaerobic Digester                       | Unit              | Value   |
| Number of Digesters                      | #                 | 2       |
| Digester Diameter                        | ft                | 90      |
| Digester Area                            | ft²               | 6361.7  |
| Side Water Depth of Digester             | ft                | 19      |
| Digester Volume                          | ft³               | 120873  |
| Influent TSS                             | mg/L              | 10286   |
| TSS Removal Efficiency                   | %                 | 45      |
| Specific Gravity                         | <u> </u>          | 1.02    |
| Total Sludge Mass                        | lb/d              | 37072.0 |
| Total Sludge Volume                      | gpd               | 84704.1 |
|  |                   |         |
| Dewatering and Composting                | Unit              | Value   |
| Influent Sludge Mass                     | lb/d              | 37072   |
| Influent Solids Weight %                 | %                 | 4.00%   |
| Effluent Solids Weight %                 | %                 | 17%     |
| Compost Solids Mass                      | lb/d              | 1482.9  |
| Compost Flow Mass                        | lb/d              | 8722.8  |
| Flow Back to Headworks Mass              | gpd               | 75981   |
|  |                   |         |
| UV Basin                                 | Unit              | Value   |
| Number of Channel                        | #<br>c.           | 2       |
| Approach Channel                         | ft                | 4       |
| Downstream Channel                       | ft                | 4       |

### Clear Creek Water Reclamation Plant Design Features

#### 1. Emergency Power Requirements

In accordance with 30 TAC § 217.36 the treatment facility must incorporate an on-site automatically starting generator capable of continuously operating all critical wastewater treatment system units. The fuel tank must be sized for a run time greater than the longest power outage in the power records. This generator will provide enough power for the following units:

- A. Influent Lift Station Pumps
- B. Mechanical Bar Screens
- C. Activated Sludge Mechanical Surface Aerators (one in each pre-aeration basin)
- D. Clarifier Sludge Scrapers
- E. Submerged Membrane Units
- F. Clean In Place System
- G. Blowers
- H. Return Activated Sludge Pumps
- I. Waste Activated Sludge Pumps
- J. UV System
- K. Lighting Panels and Control Equipment
- L. Effluent Metering Station

An automatic transfer switch will be included to transfer electrical loads to the generator during an outage. In accordance with 30 TAC § 217.37, the disinfection system will automatically restart during a power outage and upon transfer back to the main power source.

#### 2. Alarm Features

The facility will be equipped with a Supervisory Control and Data Acquisition (SCADA) system to monitor the operation of all critical treatment units. The control room will include a computer with graphic display of the treatment units that will indicate status and alarm conditions. The computer system will include an auto dialer to alert facility personnel of the following conditions:

- A. Power Outage
- B. Influent Lift Station Wet Well High Level
- C. Bar Screen Channel High Level
- D. Clarifier Torque Overload
- E. Equipment Failure

The auto dialer will store prerecorded messages concerning each alarm condition and the procedure to be followed and will call up to 8 different phone numbers until the alarm condition is acknowledged. The influent lift station and clarifiers will also be equipped with local alarm lights for high level and high torque, respectively.

### 3. Design Features for Reliability and Operating Flexibility

- A. Influent Lift Station: The influent lift station will include submersible pumps sized to meet peak flow pumping capacity with the largest unit out of service. Level switches will automatically start and stop the pumps based on influent flows and rising and falling wet well levels. High wet well level will result in an alarm condition.
- B. Bar Screen: The mechanical bar screen structure will include a bypass channel with a manual screen for use when needed. Slide gates will be used to isolate each channel as required. A redundant bar screen will be utilized for both the coarse and fine screen.
- C. MBR Basins: Each basin will have flow control that will allow the basin to be shut down for maintenance. No additional infrastructure will have to be installed to allow the basins to reach safe maintenance conditions.
- D. UV: Dual UV Channels installed for redundancy.
- E. Grit Chambers: Operate by physical process so no electricity is required.

#### 4. Overflow Prevention

The following design features will be used to prevent the overflow of wastewater from treatment units.

- A. Based on master plan data, the facility design includes a peaking factor of 4 to insure adequate hydraulic capacity.
- B. The influent lift station will be designed with the capacity to pump peak flow with the largest single pump out of service.
- C. The facility hydraulic design, including piping, channels, weirs, troughs, and other features will be sized to allow the 2-hour peak flow to pass through the facility without exceeding minimum freeboard requirements with any single treatment unit out of service.

# ATTACHMENT R: SOLIDS MANAGEMENT PLAN

#### Clear Creek Water Reclamation Plant

#### Solids Management Plan Phase 1

Master Planning Data Collection identifies an influent BOD strength of 314 mg/L, the initial design flow capacity of this treatment facility is 2.5 MGD. This corresponds to a removal of 6,549 lbs. BOD/day (314 mg/L x 8.34 lbs./gallon x 2.5 MGD). The volatile solids in the sludge are estimated to have no reduction, therefore 100% solids would be remaining.

Sludge Production 2.5 MGD

| Solids Generated                       | 100%<br>Flow | 75%<br>Flow | 50%<br>Flow | 25%<br>Flow |
|--|--------------|-------------|-------------|-------------|
| Pounds of Influent BOD₅                | 6,549        | 4,912       | 3,275       | 1,637       |
| Pounds of digested dry sludge produced | 4,420        | 3,315       | 2,210       | 1,105       |
| Pounds of wet sludge produced          | 110,501      | 82,876      | 55,251      | 27,625      |
| Gallons of wet sludge produced         | 13,250       | 9,937       | 6,625       | 3,312       |

Assuming influent BOD at average temperatures and 4.0% solids reduction in the anaerobic digesters at 100% of design flow, sludge would flow to the solids handling building at 13,250 gallons per day. The total capacity of the proposed aerobic digester basins is 1,808,382 gallons. The digested sludge will then be composted. If compost does not meet permit quality, it will be hauled to an authorized landfill by a registered hauler.

The anaerobic digester will be designed to be (2) 90'ø x 19'.

#### Clear Creek Water Reclamation Plant

#### Solids Management Plan Phase 2

Master Planning Data Collection identifies an influent BOD strength of 314 mg/L, the initial design flow capacity of this treatment facility is 5.0 MGD. This corresponds to a removal of 13,099 lbs. BOD/day (314 mg/L x 8.34 lbs./gallon x 5.0 MGD). The volatile solids in the sludge are estimated to have no reduction, therefore 100% solids would be remaining.

Sludge Production 5 MGD Flow

| Solids Generated                       | 100%<br>Flow | 75%<br>Flow | 50%<br>Flow | 25%<br>Flow |
|--|--------------|-------------|-------------|-------------|
| Pounds of Influent BOD₅                | 13099        | 9824        | 6549        | 3275        |
| Pounds of digested dry sludge produced | 8840         | 6630        | 4420        | 2210        |
| Pounds of wet sludge produced          | 221003       | 165752      | 110501      | 55251       |
| Gallons of wet sludge produced         | 26499        | 19874       | 13250       | 6625        |

Assuming influent BOD at average temperatures and 4.0% solids reduction in the anaerobic digesters at 100% of design flow, sludge would flow to the solids handling building at 26,499 gallons per day. The total capacity of the proposed aerobic digester basins is 1,808,382 gallons. The digested sludge will then be composted. If compost does not meet permit quality, it will be hauled to an authorized landfill by a registered hauler.

The anaerobic digester will be designed to be (2) 90'ø x 19'.

### **Clear Creek Water Reclamation Plant**

### Solids Management Plan Phase 3/ Design Flow

Master Planning Data Collection identifies an influent BOD strength of 314 mg/L, the initial design flow capacity of this treatment facility is 10.0 MGD. This corresponds to a removal of 26,198 lbs. BOD/day (314 mg/L x 8.34 lbs./gallon x 10.0 MGD). The volatile solids in the sludge are estimated to have no reduction, therefore 100% solids would be remaining.

Sludge Production at 10 MGD Design Flow

| Solids Generated                       | 100%<br>Flow | 75%<br>Flow | 50%<br>Flow | 25%<br>Flow |
|--|--------------|-------------|-------------|-------------|
| Pounds of Influent BOD₅                | 26198        | 19648       | 13099       | 6549        |
| Pounds of digested dry sludge produced | 17680        | 13260       | 8840        | 4420        |
| Pounds of wet sludge produced          | 442006       | 331504      | 221003      | 110501      |
| Gallons of wet sludge produced         | 52998        | 39749       | 26499       | 13250       |

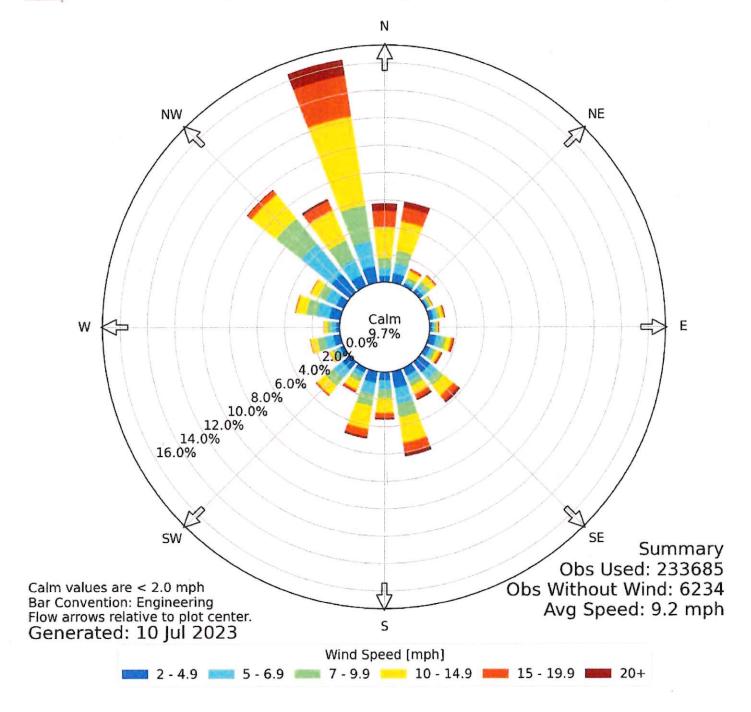
Assuming influent BOD at average temperatures and 4.0% solids reduction in the anaerobic digesters at 100% of design flow, sludge would flow to the solids handling building at 52,998 gallons per day. The total capacity of the proposed aerobic digester basins is 1,808,382 gallons. The digested sludge will then be composted. If compost does not meet permit quality, it will be hauled to an authorized landfill by a registered hauler.

The anaerobic digester will be designed to be (2) 90'ø x 19'.

ATTACHMENT S: WIND ROSE

# IEM

Windrose Plot for [DTO] Denton Obs Between: 10 Jul 1996 12:53 AM - 09 Jul 2023 11:53 PM America/Chicago



# ATTACHMENT T: PUBLIC INVOLVEMENT PLAN FORM



### 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.

| 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 <b>brief</b> explanation.  |

Section 1. Preliminary Screening

| 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  |
| X 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.   |
| Changing the treatment technology of Clear Creek Water Reclamation Plant to Membrane Bioreactor water treatment and then increasing the flow to 10 MGD, final phase capacity, over three phases of construction.                       |
|  |

| Section 5. Community and Demographic Information  |
|---|
| Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.   |
| Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.   |
| City of Denton  |
| (City)  |
| Denton  |
| (County)  |
| 48121   |
|   |
| (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  91.4  |
| (b) Per capita income for population near the specified location 32,224   |
| (c) Percent of minority population and percent of population by race within the specified location Black/African American - 11.5%, American Indian/Alaskan Native - 0.8%, Asian - 4.2%, Native Hawaiian and Pacific Islander - 0.1%, Two or More Races - 8.8%, Hispanic or Latino - 23.4% (d) Percent of Linguistically Isolated Households by language within the specified location 4.0 |
| (e) Languages commonly spoken in area by percentage 77.25% English, 16.67% Spanish, and 6.08% Other.  |
| (f) Community and/or Stakeholder Groups Unknown   |
| (g) Historic public interest or involvement Unknown   |

| 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) Pecan Creek Water Reclamation Plant, Admin Building  |  |  |  |  |
| 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 U: SEWAGE SLUDGE TECHNICAL REPORT

### DOMESTIC WASTEWATER PERMIT APPLICATION:

### SEWAGE SLUDGE TECHNICAL REPORT 1.0

### **GENERAL INFORMATION**

If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

### SECTION 1. TREATMENT PROCESSING INFORMATION

- **A.** Attach the engineering report and/or plans and specifications for the proposed facility which must include the following:
  - Description of the type of process facility
  - Process flow diagram
  - Design calculations, features, and functional arrangements
  - Site controls
  - Groundwater protection
  - Odor, dust, and bio-aerosol management
  - Ultimate product

Attachment Number: Attachment V: Sludge Treatment Process Information

| B. | Is the facility located or proposed to be located above the 100-year frequency flood   |
|----|--|
|    | plain? Yes ⊠ No □  |
|    | If No, provide a separate site map indicating the location of the sludge units within the 100-year frequency flood plain and a detailed description of the type and size of protective measures. |
|    | <u>N/A</u>   |

### SECTION 2. SOURCES OF SLUDGE

**A.** Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the quantity for each source.

| Facility Name                       | Permit       | <b>Annual Quantity</b>                 |
|-------------------------------------|--------------|--|
|                                     | Number       |  |
| Clear Creek Water Reclamation Plant | WQ0014416001 | Estimated 6,800 tons at final buildout |
| Sludge Acceptance from other WWTPs  | TBD          | TBD                                    |

**B.** For each source of sludge, complete Table 1 located at the end of this form.

### SECTION 3. PATHOGEN AND VECTOR ATTRACTION REDUCTION

- A. For each source of sludge, complete Tables 2 and 3 located at the end of this form.
- **B.** Indicate by a checkmark that all of the following are being followed for Class B land application.
  - ☐ Food crop harvesting restrictions
  - ☐ Animal grazing restrictions
  - □ Public access restrictions

### SECTION 4. WELL INFORMATION

In the table below, provide information about each well located on-site and within 500 feet of the processing, application, and/or disposal area. Water well information is available from the Texas Water Development Board, 512-936-0837. Oil and gas well information is available from the Texas Railroad Commission, 512-463-6851.

| Well Type<br>(Water Well,<br>Oil Well,<br>Injection<br>Well) | Producing<br>or<br>Non-Producing | Open, Cased, or<br>Capped* | Protective Measures** |
|--|----------------------------------|----------------------------|-----------------------|
| N/A  | N/A                              | N/A                        | N/A                   |
| N/A  | N/A                              | N/A                        | N/A                   |

<sup>\*</sup> Casing, capping, and plugging rules are located in 16 TAC Chapter 76.

- If the well is producing and cased, no action is needed.
- If the well is producing and not cased, the well must be cased or describe other protective measures.
- If the well is non-producing and cased, the well must be plugged or capped.
- If the well is non-producing and not cased, the well must be plugged.

### SECTION 5. ADDITIONAL TECHNICAL REPORTS

Identify which additional technical reports are submitted with this application.

- ☐ Technical Report 2.0, Sewage Sludge Composting
- ☑ Technical Report 3.0, Marketing and Distribution
- ☐ Technical Report 4.0, Sewage Sludge Surface Disposal

<sup>\*\*</sup> The following protective measures are required prior to initial sludge/septage application:

### SITE OPERATOR SIGNATURE PAGE

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

Permit Number: WQ0014416001

Applicant: City of Denton

I understand that I am responsible for operating the site described in this permit application in accordance with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the Texas Commission on Environmental Quality.

I certify, under penalty of law, that all 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, imprisonment for violations, and revocation of this permit.

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: <u>Sara Hensley</u>                |                                   |
|--|-----------------------------------|
| Title: <u>City Manager</u>                         |                                   |
| Signature (use blue ink):                          | Date: 2/11/24                     |
| SUBSCRIBED AND SWORN to before me                  | by the said <u>CityManagel</u> or |
| this 1744 day of Apri                              | , 20 24                           |
| My commission expires on the 14th                  | day of Oecember, 20 26            |
| (Seal)   | Notary Public                     |
| KARISA LEIGH RICHARDS                              | Denton                            |
| My Notary ID # 131826791 Expires December 14, 2026 | County, Texas                     |

### Appendix A Pollutant Concentrations in Sewage Sludge

Complete this table for each source of sludge.

Facility Name: Clear Creek Water Reclamation Plant

TCEQ Authorization Number: WQ0014416001

POLLUTANT/METAL ANALYSIS

| Pollutant               | Maximum Concentration, mg/kg dry weight | Test<br>Results,<br>mg/kg<br>dry weight | Sample<br>Date | Detection<br>Level for<br>Analysis | Sample<br>Method |
|-------------------------|---|---|----------------|------------------------------------|------------------|
| Arsenic (As)            | 75                                      | TBD                                     | TBD            | TBD                                | TBD              |
| Cadmium (Cd)            | 85                                      | TBD                                     | TBD            | TBD                                | TBD              |
| Chromium (Cr)           | 3000                                    | TBD                                     | TBD            | TBD                                | TBD              |
| Copper (Cu)             | 4300                                    | TBD                                     | TBD            | TBD                                | TBD              |
| Lead (Pb)               | 840                                     | TBD                                     | TBD            | TBD                                | TBD              |
| Mercury (Hg)            | 57                                      | TBD                                     | TBD            | TBD                                | TBD              |
| Molybdenum<br>(Mo)      | 75                                      | TBD                                     | TBD            | TBD                                | TBD              |
| Nickel (Ni)             | 420                                     | TBD                                     | TBD            | TBD                                | TBD              |
| Selenium (Se)           | 100                                     | TBD                                     | TBD            | TBD                                | TBD              |
| Zinc (Zn)               | 7500                                    | TBD                                     | TBD            | TBD                                | TBD              |
| PCB (ppm)               | 50.0 ppm                                | TBD                                     | TBD            | TBD                                | TBD              |
| Fecal Coliform<br>(MPN) |   |   |                |                                    |                  |

### Appendix A Pollutant Concentrations in Sewage Sludge

Complete this table for each source of sludge.

Facility Name: Sludge Acceptance from other WWTPs

TCEQ Authorization Number: <u>TBD</u> **POLLUTANT/METAL ANALYSIS** 

| Pollutant               | Maximum<br>Concentration,<br>mg/kg<br>dry weight | Test<br>Results,<br>mg/kg<br>dry weight | Sample<br>Date | Detection<br>Level for<br>Analysis | Sample<br>Method |
|-------------------------|--|---|----------------|------------------------------------|------------------|
| Arsenic (As)            | 75   | TBD                                     | TBD            | TBD                                | TBD              |
| Cadmium (Cd)            | 85   | TBD                                     | TBD            | TBD                                | TBD              |
| Chromium (Cr)           | 3000   | TBD                                     | TBD            | TBD                                | TBD              |
| Copper (Cu)             | 4300   | TBD                                     | TBD            | TBD                                | TBD              |
| Lead (Pb)               | 840  | TBD                                     | TBD            | TBD                                | TBD              |
| Mercury (Hg)            | 57   | TBD                                     | TBD            | TBD                                | TBD              |
| Molybdenum<br>(Mo)      | 75   | TBD                                     | TBD            | TBD                                | TBD              |
| Nickel (Ni)             | 420  | TBD                                     | TBD            | TBD                                | TBD              |
| Selenium (Se)           | 100  | TBD                                     | TBD            | TBD                                | TBD              |
| Zinc (Zn)               | 7500   | TBD                                     | TBD            | TBD                                | TBD              |
| PCB (ppm)               | 50.0 ppm   | TBD                                     | TBD            | TBD                                | TBD              |
| Fecal Coliform<br>(MPN) |  |   |                |                                    |                  |

## DOMESTIC WASTEWATER PERMIT APPLICATION: SEWAGE SLUDGE TECHNICAL REPORT 2.0

### SEWAGE SLUDGE COMPOSTING

### SECTION 1. RENEWAL OF EXISTING AUTHORIZATION

| Provide the following information if you are requesting continued authorization to |
|--|
| compost sewage sludge. Complete this section only if composting is currently       |
| authorized in the existing permit.   |

Date operation commenced: <u>N/A</u>

Location of operation: N/A

Type of bulking agent: N/A

Approximate amount of sludge composted: N/A

Provide a brief discussion of the composting process and any significant changes since the permit was last issued.

| <u>N/A</u> |      |  |  |
|------------|------|--|--|
| 8          |      |  |  |
|            |      |  |  |
|            |      |  |  |
|            |      |  |  |
|            | <br> |  |  |

### SECTION 2. NEW AUTHORIZATION TO COMPOST SEWAGE SLUDGE

**A.** Submit an ORIGINAL General Highway (County) Map. See instructions for information that must be displayed on the map.

Attachment Number: Attachment W: Denton County Map

B. Has sewage sludge/septage previously been composted at this facility?

Yes □ No ⊠

If Yes, provide a use history of the composting operations.

| N/A |    |
|-----|----|
|     |    |
|     |    |
|     |    |
|     | 9: |
|     |    |

- **C.** Provide a detailed description of the composting operation. The description must include the following information:
  - Amount of sludge originating off-site to be composted;
  - Total amount of sludge to be composted and total amount of feedstocks;
  - Fecal coliform or Salmonella bacteria analysis (in MPN or CFU);
  - Type, origin, and amount of bulking material to be used;
  - Set back distances from facility boundaries for receiving, processing, or storing feedstocks or final product;
  - Plan view of site;
  - Type of composting proposed;
  - Construction, maintenance, and operation to manage run-on and run-off during a 25-year, 24-hour rainfall event, including all calculations and sources used;
  - Leachate collection system and leachate processing and disposal method;
  - Construction, maintenance, and operations for groundwater protection;
  - Design plan to line all surfaces used for delivery, mixing, composting, curing, screening, and storage to control seepage; and
  - Design to minimize windblown material, odor, and vector control.

Attachment Number: Attachment V: Sludge Treatment Process Information

Plan

**D.** Does the end product meet the requirements in 30 TAC 332.72(d)(2)(A)-(D)?

Yes ⊠ No □

- E. Submit a site operating plan which provides guidance from the design engineer to site management and operating personnel in sufficient detail to enable them to conduct day to day operations in a manner consistent with the engineer's design. The plan must include the following information:
  - Process description (feedstock identification, tipping process, process, postprocessing, product distribution, process diagram);
  - Minimum number of personnel and their functions provided by the site operator;
  - Minimum equipment;
  - Security, site access control, traffic control, and safety;
  - Control of the delivery material in designated areas;
  - Screening for unprocessable, prohibited, and unauthorized material;
  - Fire prevention and suppression plan;

- Control of windblown material;
- Equipment failures;
- Anticipated final grade of materials; and
- Description of handling and/or disposal of materials that doesn't meet 30 TAC Chapter 312.

Attachment Number: Attachment X: Composting Facility Site Operation Plan

# DOMESTIC WASTEWATER PERMIT APPLICATION: SEWAGE SLUDGE TECHNICAL REPORT 3.0 SEWAGE SLUDGE MARKETING AND DISTRIBUTION

- **A.** What is the TCEQ Permit number for the Wastewater Treatment Plant that is generating the Class A or Class AB sewage sludge? <u>WQ0014416001</u>
- **B.** What is the name and location of the distribution storage center? TBD
- **C.** Provide a description of the marketing and distribution plan.

Dyno Dirt is already an established product in the city of Denton. Previous sales at the Pecan Creek Water Reclamation plant (WQ0014416001) have spread awareness of the product to the citizens in the surrounding areas. The product will also be marketed with social media, conference exhibitions, and festival attendance. The existing compost at the city of Denton has achieved the United States Composting Council's Seal of Testing Assurance (STA). Distribution will occur at the Clear Creek Facility or the existing Dyno Dirt facility at Pecan Creek WRP.

- **D.** Provide the following information for all entities receiving sludge directly from the permittee. If more than 2, submit an attachment which includes the follow information.
  - 1. Contact Name: N/A

Company Name: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

Phone Number: <u>N/A</u> Fax Number: <u>N/A</u>

Longitude: N/A

Latitude: N/A

Permits: N/A

Contact Name: N/A

Company Name: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A Fax Number: N/A

Longitude: <u>N/A</u> Latitude: <u>N/A</u> Permits: <u>N/A</u>

**E.** Provide a copy of the label or information sheet that is provided to each entity receiving the sewage sludge.

Attachment Number: N/A

- F. Indicate by a checkmark that the sewage sludge meets the following:
  - ☐ Metal concentrations in 30 TAC §312.43(b)(3)
  - ☐ Vector attraction reduction requirements
  - ☐ Class A, Class AB or Class B pathogen requirements
- G. Indicate the type of recordkeeping: N/A

**PLEASE NOTE:** If Class AB sewage sludge, attach a topographic map that shows the required buffer zones stated in 30 TAC §312.44.

# ATTACHMENT V: SLUDGE TREATMENT PROCESS INFORMATION



### **Sludge Treatment Processing Information**

**Note:** Composting facility is proposed and not in operation currently. This description is written based on existing composting technology at Pecan Creek Water Reclamation Plant.

### **Description of Process Facility:**

Biosolids will be dewatered and transferred to a composting facility. The facility will be enclosed with solar drying, air exchanges, and pasteurization to create Class A solids.

#### **Process Flow Diagram**

See Attachment N: Process Flow Diagram

### Design Calculations, Features, and Functional Arrangements

See Attachment Q: Design Calculations and Features

#### Site Plan

Please refer to the buffer zone map for planned location and setbacks of composting facility.

See Attachment M: Buffer Zone Map

#### Planned Construction

Facility will be constructed during phase 1 in Spring 2025.

#### **Site Controls**

Facility will be enclosed on a concrete pad that will prevent leachate from leeching into surrounding area. Drains shall be installed to carry leachate to headworks of plant. Trash generated by the facility and its operation shall be disposed of and ultimately transported to a landfill. Drains shall be cleaned as needed to prevent cloggage.

#### **Groundwater and Runoff Protection**

Groundwater is protected by the composting facility's concrete pad. Facility is fully enclosed so no surface runoff of the facility will ever be in contact with the composting operation.

### Odor, Dust, and Bio-Aerosol Management

Fully enclosed structure shall minimize odor, dust, and bio-aerosols. Multiple air exchanges in the building as well shall ensure that it is a safe environment for workers and prevent buildup of noxious gases.

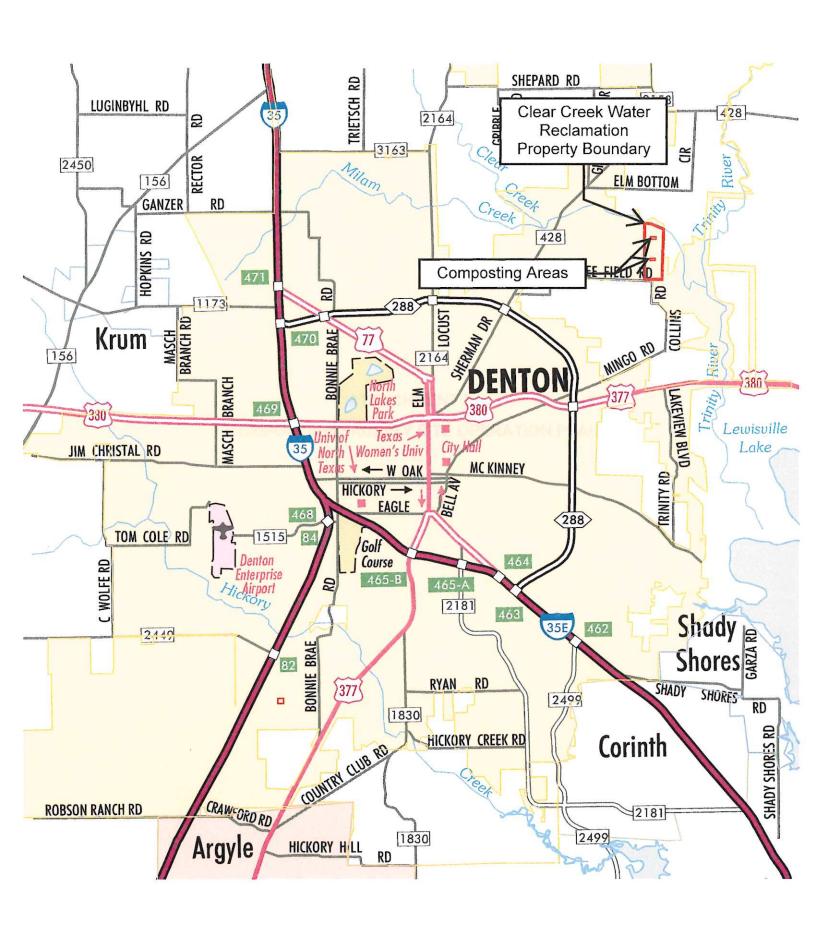
#### **Ultimate Product**

The ultimate product will undergo pasteurization and is expected to be a Class A product.

### **Bacteria Collection**

Fecal coliform or Salmonella bacterial analysis will be performed once facility is operational.

# ATTACHMENT W: DENTON COUNTY MAP



# ATTACHMENT Y: COPY OF PERMIT PAYMENT VOUCHER

### TCEQ ePay Voucher Receipt

Transaction Information -

Voucher Number:

694886

Trace Number:

582EA000600276

Date:

03/05/2024 09:50 AM

Payment Method:

CC - Authorization 0000280332

Voucher Amount:

\$2,000.00

Fee Type:

WW PERMIT - FACILITY WITH FLOW >= 1.0 MGD - NEW AND MAJOR

AMENDMENTS

ePay Actor:

SANTOS SOTELO

Payment Contact Information -

Name: Company: SANTOS SOTELO KIMLEY-HORN

Address:

801 CHERRY STREET, FORT WORTH, TX 76102

Phone:

682-348-7279

- Site Information -

Site Name:

CLEAR CREEK WATER RECLAMATION PLANT

Site Location:

9 200 FT EAST OF FM ROAD 428 AND 1 800 FT NORTHEAST OF HARTLEE

FIELD ROAD

- Customer Information —

Customer Name:

CITY OF DENTON

Customer Address:

1100 S MAYHILL RD, DENTON, TX 76208

### TCEQ ePay Voucher Receipt

Transaction Information —

Voucher Number:

694887

Trace Number:

582EA000600276 03/05/2024 09:50 AM

Payment Method:

CC - Authorization 0000280332

Voucher Amount:

\$50.00

Fee Type:

Date:

30 TAC 305.53B WQ NOTIFICATION FEE

ePay Actor:

SANTOS SOTELO

-Payment Contact Information -

Name: Company: SANTOS SOTELO KIMLEY-HORN

Address:

801 CHERRY STREET, FORT WORTH, TX 76102

Phone:

682-348-7279

ATTACHMENT Z: CITY ORDINANCE

renewals, and authorizations from TCEQ, consistent with the intents and purposes of this ordinance and state law.

SECTION 3. The City Council authorizes the City Manager to provide for payment, where funds are available in the budget, of regulatory and notice fees required to receive permits, permit amendments, permit renewals, and authorizations from TCEQ.

SECTION 4. Any provision of any prior ordinance of the City which conflicts with any provision of this ordinance is hereby repealed to the extent of the conflict, but all other provisions of the ordinance of the city which are not in conflict with the provisions of this ordinance shall remain in full force and effect.

SECTION 5. This ordinance shall become effective immediately upon its passage and approval.

The motion to approve this ordinance was made by [B, B, u] and seconded by [C, u]. The ordinance was passed and approved by the following vote [7-6-]:

|  | Aye | Nay   | Abstain | Absent |
|--|-----|---|---------|--------|
|  |     |   |         |        |
| Mayor Gerard Hudspeth:                 | /_  |   |         |        |
| Vicki Byrd, District 1:                |     | Karana da marana da m |         |        |
| Brian Beck, District 2:                | _/_ | -   |         |        |
| Paul Meltzer, District 3:              |     |   |         |        |
| Joe Holland, District 4:               | V_  |   |         |        |
| Brandon Chase McGee, At Large Place 5: |     |   |         |        |
| Chris Watts, At Large Place 6:         |     |   |         |        |

| PASSED AND APPROVED this the 16          | _day of April, 2024.   |
|--|------------------------|
|  | CMW-                   |
|  | GERARD HUDSPETH, MAYOR |
| ATTEST:<br>LAUREN THODEN, CITY SECRETARY |                        |

APPROVED AS TO LEGAL FORM: MACK REINWAND, CITY ATTORNEY

BY: Chistopher Mullins 2024.04.03 17:24:31-05'00'



### ATTACHMENT L: LANDOWNER LIST AND LABELS

# Parcel-Landowner

# Table

| Parcel # | Landowner                                    | Mailing Address                         |
|----------|--|---|
| Н        | ROUX, LEE & KRISTI                           | 5165 HARTLEE FIELD RD. DENTON, TX 76208 |
| 2        | STRITTMATTER, JOSEPH M & MARLA A             | 3248 ELM BOTTOM CIR. AUBREY, TX 76227   |
| 3        | BELEW, WANDA K                               | 3459 COLLINS RD. DENTON, TX 76208       |
| 4        | DENTON, CITY OF                              | 215 E MCKINNEY ST. DENTON, TX 76201     |
| S        | BELEW FAMILY PARTNERS LTD                    | 3459 COLLINS RD. DENTON, TX 76208       |
| 9        | HILDRETH, KATHLEEN & BRADFORD CRAIG          | 3920 ELM BOTTOM CIR. AUBREY, TX 76227   |
| 7        | USA CORP OF ENGINEERS                        | 1012 FINCHER TRL. ARGYLE, TX 76226      |
| 8        | HANKINS, JERALD F & DINAH D                  | 320 STONE RIDGE DR. SUNNYVALE, TX 75182 |
| 6        | KADER, MICHAEL CHRISTIAN                     | 4300 ELM BOTTOM CIR. AUBREY, TX 76227   |
| 10       | FLORES, MOISONY JORDAN                       | 8353 LULLWATER DR. DALLAS, TX 75218     |
| 11       | ADAMS, CATHERINE E DECLARATION OF TRUST      | 4568 ELM BOTTOM CIR. AUBREY, TX 76227   |
| 12       | NO OWNER RECORD BY COUNTY APPRAISAL DISTRICT | N/A                                     |
| 13       | NO OWNER RECORD BY COUNTY APPRAISAL DISTRICT | N/A                                     |

Easy Peer Address Labels

Bend along line to expose Pop-up Edge

Go to avery.com/templates ; Use Avery Template 5160 i

ROUX, LEE & KRISTI 5165 HARTLEE FIELD RD. DENTON, TX 76208 STRITTMATTER, JOSEPH M & MARLA A 3248 ELM BOTTOM CIR. AUBREY, TX 76227

BELEW, WANDA K 3459 COLLINS RD. DENTON, TX 76208

DENTON, CITY OF 215 E MCKINNEY ST. DENTON, TX 76201 BELEW FAMILY PARTNERS LTD 3459 COLLINS RD. DENTON, TX 76208 HILDRETH, KATHLEEN & BRADFORD CRAIG 3920 ELM BOTTOM CIR. AUBREY, TX 76227

USA CORP OF ENGINEERS 1012 FINCHER TRL. ARGYLE, TX 76226 HANKINS, JERALD F & DINAH D 320 STONE RIDGE DR. SUNNYVALE, TX 75182 KADER, MICHAEL CHRISTIAN 4300 ELM BOTTOM CIR. AUBREY, TX 76227

DAVIDSON, MICHAEL 6131 HARTLEE FIELD RD. DENTON, TX 76208 DAVIDSON, ROGER A 3501 SHADY TIMBER ST. APT. 1080 LAS VEGAS, NV 89129 FLORES, MOISONY JORDAN 8353 LULLWATER DR. DALLAS, TX 75218

ADAMS, CATHERINE E
DECLARATION OF TRUST
4568 ELM BOTTOM CIR. AUBREY, TX
76227

Jestj 4268 elm boltom cir. Aubrey, TX Declaration of trust Adams, Catherine e

PLORES, MOISONY JORDAN B353 LULLWATER DR. DALLAS, TX 75218 LAS VEGAS, NV 89129 3501 SHADY TIMBER ST. APT. 1080 DAVIDSON, ROGER A DENTON, TX 76208 DAVIDSON, MICHAEL DAVIDSON, MICHAEL

AUBREY, TX 76227 KADER, MICHAEL CHRISTIAN SUNNYYALE, TY 75182 BUNAH D BUNAY DE RIDGE DR.

VEGALE, TX 76226 1012 FINCHER TRL. USA CORP OF ENGINEERS

AUBREY, TX 76227 3920 ELM BOTTOM CIR. HILDRETH, KATHLEEN & DENLON' LX 16208 3429 COLLINS RD. BELEW FAMILY

DENLON' LX 16201. 512 E WCKINNEK 2L' DENLON' CILK OE

DENLON' LX 16208 3459 COLLINS RD. BELEW, WANDA K AUBREY, TX 76227 3248 ELM BOTTOM CIR. MARLA A STRITMATTER, JOSEPH M &

DENTON' IX 76208 2163 HARTLEE FIELD RD. KOUX, LEE & KRISTI Easy Feel Address Labels

Bend along line to expose Pop-up Edge

Go to avery.com/templates | Use Avery Template 5160 |

ROUX, LEE & KRISTI 5165 HARTLEE FIELD RD. DENTON, TX 76208 STRITTMATTER, JOSEPH M & MARLA A 3248 ELM BOTTOM CIR. AUBREY, TX 76227

BELEW, WANDA K 3459 COLLINS RD. DENTON, TX 76208

DENTON, CITY OF 215 E MCKINNEY ST. DENTON, TX 76201 BELEW FAMILY PARTNERS LTD 3459 COLLINS RD. DENTON, TX 76208 HILDRETH, KATHLEEN & BRADFORD CRAIG 3920 ELM BOTTOM CIR. AUBREY, TX 76227

USA CORP OF ENGINEERS 1012 FINCHER TRL. ARGYLE, TX 76226 HANKINS, JERALD F & DINAH D 320 STONE RIDGE DR. SUNNYVALE, TX 75182 KADER, MICHAEL CHRISTIAN 4300 ELM BOTTOM CIR. AUBREY, TX 76227

DAVIDSON, MICHAEL 6131 HARTLEE FIELD RD. DENTON, TX 76208 DAVIDSON, ROGER A 3501 SHADY TIMBER ST. APT. 1080 LAS VEGAS, NV 89129 FLORES, MOISONY JORDAN 8353 LULLWATER DR. DALLAS, TX 75218

ADAMS, CATHERINE E DECLARATION OF TRUST 4568 ELM BOTTOM CIR. AUBREY, TX 76227

> J6227 4568 ELM BOTTOM CIR. AUBREY, TX DECLARATION OF TRUST ADAMS, CATHERINE E

DALLAS, TX 75218 8353 LULLWATER DR. FLORES, MOISONY JORDAN LAS VEGAS, NV 89129 3501 SHADY TIMBER ST. APT. 1080 DAVIDSON, ROGER A DENLON' LX 16208 DAVIDSON, MICHAEL DAVIDSON, MICHAEL

AUBREY, TX 76227 4300 ELM BOTTOM CIR. KADER, MICHAEL CHRISTIAN 20 SUNNAVE, TX 75182 DINAH D HANKINS, IERALD F &

ARGYLE, TX 76226 1012 FINCHER TRL. USA CORP OF ENGINEERS

AUBREY, TX 76227 3920 ELM BOTTOM CIR. HILDRETH, KATHLEEN & DENLON' LX 16208 3439 COFFINS BD: BEFEM EVWIFA

DENLON' LX 16201 512 E WCKINNEK 2L' DENLON' CILK OE

DENLON' LX 16208 3459 COLLINS RD. BELEW, WANDA K AUBREY, TX 76227 3248 ELM BOTTOM CIR. MARLA A

DENLON' LX 16208 2163 HARTLEE FIELD RD. KOUX, LEE & KRISTI ATTACHMENT M: BUFFER ZONE MAP

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Phone No.: N/A E-mail Address: N/A If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions. Attachment: N/A F. Owner of sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant): Prefix (Mr., Ms., Miss): N/A First and Last Name: N/A Mailing Address: N/A City, State, Zip Code: N/A Phone No.: N/A E-mail Address: N/A If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions. Attachment: N/A Section 10. TPDES Discharge Information (Instructions Page 34) A. Is the wastewater treatment facility location in the existing permit accurate?  $\boxtimes$ Yes No If no, or a new permit application, please give an accurate description: The water reclamation plant will be located Approximately 12,210 feet east of the intersection of E. Sherman Drive and Hartlee Field Road, in Denton County, Texas 76208...

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

Yes Nο

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:

The point of discharge is approximately 8,500 ft east of Farm-to-Market Road 428 and 3,000 ft northwest of Hartlee Field Road in Denton County, Texas. Discharge enters into on-site finishing ponds, thence to the Clear Creek stream (0823C) thence flows into Elm Fork Trinity River (0823) thence into Lewisville Lake.

City nearest the outfall(s): City of Denton

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

Outfall Latitude: 33.279218 Longitude: -97.067088

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?

# Section 15. Plain Language Summary (Instructions Page 40)

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

# ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

## DOMESTIC WASTEWATER

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

City of Denton (CN 600358980) proposes to operate Clear Creek Water Reclamation Plant (RN103935516). a membrane bioreactor process plant scheme. The facility will be located approximately 12,210 feet east of the intersection of E. Sherman Drive and Hartlee Field Road, in Denton, Denton County, Texas 76208.

Major amendment application to discharge 10 MGD design flow of treated domestic water.

Discharges from the facility are expected to contain five-day biochemical oxygen demand ( $BOD_5$ ), total suspended solids (TSS), ammonia nitrogen ( $NH_3$ -H), phosphorus (P), and dissolved oxygen (DO). Domestic wastewater will be treated by a membrane bioreactor process plant and the treatment units will include bar screens, grit chambers, primary clarifiers, anaerobic basins, anoxic basins, aerobic submerged membrane unit basins, anaerobic digesters, and ultraviolet (UV) disinfection.

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

# FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

| TCEQ USE ONLY:                   |   |                                   |   |                |
|----------------------------------|---|-----------------------------------|---|----------------|
|                                  | Renewal Major <i>F</i>                            | Amendment                         | Minor Amendment   | New            |
|                                  | -   |                                   | lumber:   |                |
|                                  | e:  |                                   |   |                |
| Agency Receiving SPIF            |   |                                   |   |                |
| 0 0                              | al Commission                                     | U.S                               | Fish and Wildlife   |                |
|                                  |   |                                   | Army Corps of Enginee   | ers            |
| This form applies to T           | PDES permit applicati                             | ons only. (Ins                    | tructions, Page 53)   |                |
| each agency as required          | d by the TCEQ agreeme<br>formation is needed, y   | ent with EPA. I<br>ou will be cor | CEQ will mail a copy of f any of the items are natacted to provide the ireddressed. | ot completely  |
| be provided with this fo         | orm separately from th<br>declared administrative | ne administrat                    | cation form. Each attac<br>ive report of the applica<br>without this form being     | ation. The     |
| The following applies to         | o all applications:                               |                                   |   |                |
| 1. Permittee: <u>City of De</u>  | <u>enton</u>                                      |                                   |   |                |
| Permit No. WQ00 <u>14</u>        | <u>1416001</u>                                    | EPA IC                            | No. TX <u>0125628</u>   |                |
| Address of the projeand county): | ect (or a location descr                          | iption that in                    | cludes street/highway, o  | city/vicinity, |
|                                  | •   |                                   | imately 12,210 feet east<br>Road, in Denton County,                                 |                |
|                                  |   |                                   |   |                |

| ( 940 ) 349-8601 | ( ) - |
|------------------|-------|
|                  |       |

# SECTION III: Regulated Entity Information

| 21. General Regulated En   | tity Inform                       | ation (If 'New Reg  | gulated Entity" is sele | ected, a  | new pei  | rmit app  | olica | tion is a | lso required.)   |         |       |                 |
|--|-----------------------------------|---------------------|-------------------------|-----------|----------|-----------|-------|-----------|------------------|---------|-------|-----------------|
| ☐ New Regulated Entity   | Update to                         | Regulated Entity    | Name 🛮 Update           | to Regu   | ulated E | ntity Inf | form  | ation     |                  |         |       |                 |
| The Regulated Entity Nar<br>as Inc, LP, or LLC).   | me submitt                        | ed may be upda      | ted, in order to me     | eet TCE   | EQ Core  | e Data .  | Star  | ndards    | (removal of o    | organiz | ation | al endings such |
| 22. Regulated Entity Nam   | ne (Enter nar                     | me of the site wher | re the regulated actio  | on is tak | ing plac | re.)      |       |           |                  |         |       |                 |
| Clear Creek Water Reclamation  | on Plant                          |                     |                         |           |          |           |       |           |                  |         |       |                 |
| 23. Street Address of the Regulated Entity:  |                                   |                     |                         |           |          |           |       |           |                  |         |       |                 |
| (No PO Boxes)  | City                              |                     | State                   |           |          | ZIP       |       |           |                  | ZIP +   | 4     |                 |
| 24. County   | Denton Co                         | unty                |                         |           |          |           |       |           |                  |         |       |                 |
|  |                                   | If no Stree         | et Address is provi     | ded, fie  | elds 25  | 5-28 are  | e rec | quired.   |                  |         |       |                 |
| 25. Description to  The water reclamation plant will be located approximately 12,210 feet east of the intersection of E. Sherman Drive and Hartlee Field |                                   |                     |                         |           |          |           |       |           |                  |         |       |                 |
| Physical Location:   | Road in Donton County Toyas 74200 |                     |                         |           |          |           |       |           |                  |         |       |                 |
| 26. Nearest City State Nearest ZIP Code  |                                   |                     |                         |           |          |           |       |           |                  |         |       |                 |
| Denton   |                                   |                     |                         |           |          |           |       | TX        |                  |         | 7620  | 8               |
| Latitude/Longitude are re used to supply coordinate  | •                                 | -                   | •                       |           |          | ata Sta   | nda   | rds. (G   | eocoding of      | the Phy | sical | Address may be  |
| 27. Latitude (N) In Decima   | al:                               | 33.279218           |                         |           | 28. Loi  | ngitude   | e (W  | /) In De  | ecimal:          | -97.0   | 06708 | 8               |
| Degrees  | Minutes                           |                     | Seconds                 |           | Degree   | S         |       |           | Minutes          |         |       | Seconds         |
| 33   |                                   | 16                  | 47.28                   |           |          | 97        |       |           | 3                |         |       | 58.68           |
| 29. Primary SIC Code   | 30                                | . Secondary SIC (   | Code                    | 31. P     | rimary   | NAICS     | S Coo | de        | 32. Sec          | ondary  | NAIC  | S Code          |
| (4 digits)   | (4 (                              | digits)             |                         |           | 6 digits |           |       |           | (5 or 6 d        | igits)  |       |                 |
| 4952   |                                   |                     |                         | 22132     | 20       |           |       |           |                  |         |       |                 |
| 33. What is the Primary B  | Business of                       | this entity? (Do    | o not repeat the SIC o  | or NAICS  | descrip  | otion.)   |       |           |                  |         |       |                 |
| Treatment of domestic waste  | ewater.                           |                     |                         |           |          |           |       |           |                  |         |       |                 |
| OA Matthew   | 901 Texas                         | Street              |                         |           |          |           |       |           |                  |         |       |                 |
| 34. Mailing  | Suite A                           |                     |                         |           |          |           |       |           |                  |         |       |                 |
| Address:   | City                              | Denton              | State                   | TX        |          | ZIP       | l     | 76209     | 9                | ZIP     | + 4   | 4354            |
| 35. E-Mail Address:  | rus                               | ty.willard@cityofo  | denton.com              |           |          |           |       | L         |                  | 1       |       | <u> </u>        |
| 36. Telephone Number   |                                   |                     | 37. Extension or        | Code      |          | 38        | 8. Fa | ax Num    | nber (if applica | able)   |       |                 |
| (940)349-8601  |                                   |                     |                         |           |          | (         | )     | -         |                  |         |       |                 |
|  |                                   |                     |                         |           |          |           |       |           |                  |         |       |                 |

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.

TCEQ-10400 (11/22) Page 2 of 3

# CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The permittee shall operate an industrial pretreatment program in accordance with Sections 402(b)(8) and (9) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403), and the approved **City of Denton** publicly owned treatment works (POTW) pretreatment program submitted by the permittee. The pretreatment program was approved on **March 16**, **1984**, and modified on **September 24**, **1993**, **August 31**, **2005**, **June 28**, **2013**, **and April 5**, **2022** (Streamlining Rule).

The POTW pretreatment program is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

- a. Industrial user (IU) information shall be kept current according to 40 CFR §§403.8(f)(2)(i) and (ii) and updated at a frequency set forth in the approved pretreatment program to reflect the accurate characterization of all IUs.
- b. The frequency and nature of IU compliance monitoring activities by the permittee shall be consistent with the approved POTW pretreatment program and commensurate with the character, consistency, and volume of waste. The permittee is required to inspect and sample the effluent from each significant industrial user (SIU) at least once per year, except as specified in 40 CFR §403.8(f)(2)(v). This is in addition to any industrial self-monitoring activities.
- c. The permittee shall enforce and obtain remedies for IU noncompliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program.
- d. The permittee shall control through permit, order, or similar means, the contribution to the POTW by each IU to ensure compliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program. In the case of SIUs (identified as significant under 40 CFR §403.3(v)), this control shall be achieved through individual permits or general control mechanisms, in accordance with 40 CFR §403.8(f)(1)(iii).

Both individual and general control mechanisms must be enforceable and contain, at a minimum, the following conditions:

- (1) Statement of duration (in no case more than five years);
- (2) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
- (3) Effluent limits, which may include enforceable best management practices (BMPs), based on applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;
- (4) Self-monitoring, sampling, reporting, notification and record keeping requirements, identification of the pollutants to be monitored (including, if applicable, the process for seeking a waiver for a pollutant neither present nor expected to be present in the IU's discharge in accordance with 40 CFR §403.12(e)(2), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR Part 403, categorical pretreatment standards, local limits, and State and local law;
- (5) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and
- (6) Requirements to control slug discharges, if determined by the POTW to be necessary.
- e. For those IUs who are covered by a general control mechanism, in order to implement 40

CFR §403.8(f)(1)(iii)(A)(2), a monitoring waiver for a pollutant neither present nor expected to be present in the IU's discharge is not effective in the general control mechanism until after the POTW has provided written notice to the SIU that such a waiver request has been granted in accordance with 40 CFR §403.12(e)(2).

- f. The permittee shall evaluate whether each SIU needs a plan or other action to control slug discharges, in accordance with 40 CFR §403.8(f)(2)(vi). If the POTW decides that a slug control plan is needed, the plan shall contain at least the minimum elements required in 40 CFR §403.8(f)(2)(vi).
- g. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program.
- h. The approved program shall not be modified by the permittee without the prior approval of the Executive Director, according to 40 CFR §403.18.
- 2. The permittee is under a continuing duty to establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, develop and enforce local limits as necessary, and modify the approved pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee may develop BMPs to implement 40 CFR §403.5(c)(1) and (2). Such BMPs shall be considered local limits and pretreatment standards. The permittee is required to effectively enforce such limits and to modify its pretreatment program, including the Legal Authority, Enforcement Response Plan, and Standard Operating Procedures (including forms), if required by the Executive Director to reflect changing conditions at the POTW. Substantial modifications will be approved in accordance with 40 CFR §403.18, and modifications will become effective upon approval by the Executive Director in accordance with 40 CFR §403.18.

Upon approval by the Executive Director of a substantial modification to this approved POTW pretreatment program, the requirement to develop and enforce specific prohibitions and/or limits to implement the prohibitions and limits set forth in 40 CFR §§403.5 (a)(1), (b), (c)(1) and (3), and (d) is a condition of this permit. The specific prohibitions set out in 40 CFR §403.5(b) shall be enforced by the permittee unless modified under this provision.

3. The permittee shall prepare annually a list of IUs, which during the preceding twelve (12) months were in significant noncompliance (SNC) with applicable pretreatment requirements. For the purposes of this section of the permit, "CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS," SNC shall be determined based upon the more stringent of either criteria established at 40 CFR §403.8(f)(2)(viii) [rev. 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually during the month of **March** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

In addition, each **March** the permittee shall submit an updated pretreatment program annual status report, in accordance with 40 CFR §§403.12(i) [rev. 10/22/15] and (m), to the TCEQ Pretreatment Team (MC148) of the Water Quality Division. The report summary shall be submitted on the Pretreatment Performance Summary (PPS) form [TCEQ-20218]. The report shall contain the following information as well as the information on the tables in this section:

- a. An updated list of all regulated IUs as indicated in this section. For each listed IU, the following information shall be included:
  - (1) Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) code *and* categorical determination.

- (2) If the pretreatment program has been modified and approved to incorporate reduced monitoring for any of the categorical IUs as provided by 40 CFR Part 403 [rev. 10/14/05], then the list must also identify:
  - categorical IUs subject to the conditions for reduced monitoring and reporting requirements under 40 CFR § 403.12(e)(1) [rev. 10/22/15] and (3);
  - those IUs that are non-significant categorical industrial users (NSCIUs) under 40 CFR §403.3(v)(2); and
  - those IUs that are middle tier categorical industrial users (MTCIUs) under 40 CFR §403.12(e)(3).
- (3) Control mechanism status.
  - Indicate whether the IU has an effective individual or general control mechanism, and the date such control mechanism was last issued, reissued, or modified;
  - Indicate which IUs were added to the system, or newly identified, during the pretreatment year reporting period;
  - Include the type of general control mechanisms; and
  - Report all NSCIU annual evaluations performed, as applicable.
- (4) A summary of all compliance monitoring activities performed by the POTW during the pretreatment year reporting period. The following information shall be reported:
  - Total number of inspections performed; and
  - Total number of sampling events conducted.
- (5) Status of IU compliance with effluent limitations, reporting, and narrative standard (which may include enforceable BMPs, narrative limits, and/or operational standards) requirements. Compliance status shall be defined as follows:
  - Compliant (C) no violations during the pretreatment year reporting period;
  - Non-compliant (NC) one or more violations during the pretreatment year reporting period but does not meet the criteria for SNC; and
  - Significant Noncompliance (SNC) in accordance with requirements described above in this section.
- (6) For noncompliant IUs, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.), and the current compliance status. If any IU was on a schedule to attain compliance with effluent limits or narrative standards, indicate the date the schedule was issued and the date compliance is to be attained.
- b. A list of each IU whose authorization to discharge was terminated or revoked during the pretreatment year reporting period and the reason for termination.
- c. A report on any interference, pass through, upset, or POTW permit violations known or suspected to be caused by IUs and response actions taken by the permittee

- d. An original newspaper public notice, or copy of the newspaper publication with official affidavit, of the list of significantly noncompliant IUs, giving the name of the newspaper and the date the list was published.
- e. The information required by this section including the information on the attached tables must be submitted. The permittee may submit the information in tabular form using the example table format provided. Please attach on a separate sheet those explanations to document various pretreatment activities, including IU permits that have expired, BMP violations, and required sampling events not conducted by the permittee as required.
- f. A summary of changes to the POTW's pretreatment program that have not been previously reported to the Approval Authority.

Effective December 21, 2025, the permittee must submit the updated pretreatment program annual status report required by this section electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. [rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].

- 4. The permittee shall provide adequate written notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days of the permittee's knowledge of the following:
  - a. Any new introduction of pollutants into the treatment works from an indirect discharger that would be subject to Sections 301 and 306 of the Clean Water Act, if the indirect discharger was 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.

Adequate 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 March 2022

# **TPDES Pretreatment Program Annual Report Form for Updated Industrial Users List**

| Reporting month/ye       | ear:       | ,,               |  |
|--------------------------|------------|------------------|--|
| <b>TPDES Permit No.:</b> | Permittee: | Treatment Plant: |  |

| PRETE           | REATME         | NT PI            | ROGI             | RAM S         | STAT                     | US REP                              | ORT                      | UPD             | ATE                   | D IN                         | IDU             | STRIA                               | L USE                            | RS¹ LI                  | ST              |                        |
|-----------------|----------------|------------------|------------------|---------------|--------------------------|-------------------------------------|--------------------------|-----------------|-----------------------|------------------------------|-----------------|-------------------------------------|----------------------------------|-------------------------|-----------------|------------------------|
| e               | CONTROL        |                  |                  |               |                          | he CA                               |                          | Du<br>Rej<br>(C | ring<br>porti<br>= Co | the Pre<br>ng Peri<br>mplian | od 4<br>t, NC = | JS<br>ent Year<br>Noncon<br>complia | nplian                           | t,                      |                 |                        |
| User Name       | Code           |                  |                  | or NR         |                          |                                     | or N)                    | d by the        | l by the              | RE                           | POR             | TS                                  |                                  |                         |                 |                        |
| Industrial User | SIC or NAICS ( | $\mathrm{CIU}^2$ | $ m Y/N~or~NR^5$ | IND or GEN or | Last Action <sup>6</sup> | TBLLs or<br>TBLLs only <sup>7</sup> | New User <sup>3</sup> (Y | Times Inspected | Times Sampled         | BMR                          | 90-Day          | Semi-<br>Annual                     | Self-<br>Monitoring <sup>8</sup> | NSCIU<br>Certifications | Effluent Limits | Narrative<br>Standards |
|                 |                |                  |                  |               |                          |                                     |                          |                 |                       |                              |                 |                                     |                                  |                         |                 |                        |
|                 |                |                  |                  |               |                          |                                     |                          |                 |                       |                              |                 |                                     |                                  |                         |                 |                        |
|                 |                |                  |                  |               |                          |                                     |                          |                 |                       |                              |                 |                                     |                                  |                         |                 |                        |

- Include all significant industrial users (SIUs), non-significant categorical industrial users (NSCIUs) as defined in 40 CFR §403.3(v)(2), and/or middle tier categorical industrial users (MTCIUs) as defined in 40 CFR §403.12(e)(3). Please do <u>not</u> include non-significant noncategorical IUs that are covered under best management practices (BMPs) or general control mechanisms.
- 2 Categorical determination (include 40 CFR citation and NSCIU or MTCIU status, if applicable).
- 3 Indicate whether the IU is a new user. If the answer is No or N, then indicate the expiration date of the last issued IU permit.
- 4 The term SNC applies to a broader range of violations, such as daily maximum, long-term average, instantaneous limits, and narrative standards (which may include enforceable BMPs, narrative limits and/or operational standards). Any other violation, or group of violations, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment Program now includes BMP violations (40 CFR §403.8(f)(2)(viii)(H)).
- 5 Code NR= None required (NSCIUs only); IND = individual control mechanism; GEN = general control mechanism. Include as a footnote (or on a separate page) the name of the general control mechanism used for similar groups of IUs, identify the similar types of operations and types of wastes that are the same for each general control mechanism. Any BMPs through general control mechanisms that are applied to nonsignificant IUs need to be reported separately, *e.g.* the sector type and BMP description.
- 6 Permit or NSCIU evaluations as applicable.
- According to 40 CFR §403.12(i)(1), indicate whether the IU is subject to technically based local limits (TBLLs) that are more stringent than categorical pretreatment standards, *e.g.* where there is one end-of-pipe sampling point at a CIU, and you have determined that the TBLLs are more stringent than the categorical pretreatment standards for any pollutant at the end-of-pipe sampling point; **OR** the IU is subject only to local limits (TBLLs only), *e.g.* the IU is a non-categorical SIU subject only to TBLLs at the end-of-pipe sampling point.
- 8 For those IUs where a monitoring waiver has been granted, please add the code "W" (after either C, NC, or SNC codes) and indicate the pollutant(s) for which the waiver has been granted.

# TPDES Pretreatment Program Annual Report Form for Industrial User Inventory Modifications

| Reporting month/ye | ar:            | , to             | _, |
|--------------------|----------------|------------------|----|
| TPDES Permit No:   | _ Permittee: _ | Treatment Plant: |    |

| INDUSTRIAL                          | INDUSTRIAL USER INVENTORY MODIFICATIONS                                    |   |                                    |   |  |  |  |  |  |  |  |
|-------------------------------------|--|---|------------------------------------|---|--|--|--|--|--|--|--|
| FACILITY<br>NAME,                   | ADD,   | IF<br>DELETION:<br>Reason For<br>Deletion | IF ADDITION OR SIGNIFICANT CHANGE: |   |  |  |  |  |  |  |  |
| ADDRESS<br>AND<br>CONTACT<br>PERSON | CHANGE, DELETE  (Including categorical reclassification to NSCIU or MTCIU) |   | PROCESS<br>DESCRIPTION             | POLLUTANTS<br>(Including<br>any sampling<br>waiver<br>given for each<br>pollutant<br>not present) | FLOW RATE 9 (In gpd) $R = Regulated$ $U = Unregulated$ $T = Total$ |  |  |  |  |  |  |
|                                     |  |   |                                    |   |  |  |  |  |  |  |  |
|                                     |  |   |                                    |   |  |  |  |  |  |  |  |
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| $\sim$ | For NSCIUs, | total flour | must be given  | if nogulated   | flourianot | datamminad      |
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| y      | ror nacios. | totai now   | must be given. | . II regulated | HOW IS HOU | . aeteriiiiiea. |

TCEQ-20218b TPDES Pretreatment Program Annual Report Form Revised July 2007

| TPDE  | TPDES Pretreatment Program Annual Report Form for Enforcement Actions Taken |         |                         |                            |                     |           |                |                        |       |   |       |             |          |  |          |
|---|---|---------|-------------------------|----------------------------|---------------------|-----------|----------------|------------------------|-------|---|-------|-------------|----------|--|----------|
|   | Re  | epor    | ting m                  | onth/                      | year                | <b>::</b> |                |                        | ,     |   | to _  |             |          | ,  |          |
| TPDES   | TPDES Permit No:  |         |                         |                            | Permittee:          |           |                | T                      | reat  | men   | t Pla | nt:         |          |  |          |
| Overall SNC% SNC 10 based on: Effluent Violations% Reporting Violations% Narrative Standard Violations%   |   |         |                         |                            |                     |           |                |                        |       |   |       |             |          |  |          |
| Noncomp   | liant   | Ind     | ustria                  | l User                     | <b>s</b> - <b>E</b> | nfo       | rcen           | ent                    | Act   | ions Ta   | ken   |             |          | 1  | ı        |
|   | Nature of Violation 11  |         |                         | Number of Actions<br>Taken |                     |           | d (Do<br>arge) | Compliance<br>Schedule |       | turned<br>or N)                                   |       |             |          |  |          |
| Industrial<br>User<br>Name  | Effluent Limits   | Reports | NSCIU<br>Certifications | Narrative<br>Standards     | AON                 | A.O.      | Civil          | Criminal               | Other | Penalties Collected (Do<br>not Include Surcharge) | YorN  | Date Issued | Date Due | Current Status Returned<br>to Compliance: (Y or N) | Comments |
|   |   |         |                         |                            |                     |           |                |                        |       |   |       |             |          |  |          |
|   |   |         |                         |                            |                     |           |                |                        |       |   |       |             |          |  |          |
|   |   |         |                         |                            |                     |           |                |                        |       |   |       |             |          |  |          |
|   |   |         |                         |                            |                     |           |                |                        |       |   |       |             |          |  |          |
|   |   |         |                         |                            |                     |           |                |                        |       |   |       |             |          |  |          |
| <ul> <li># %         — Pretreatment Standards [WENDB-PSNC] (Local Limits/Categorical Standards)         — Reporting Requirements [WENDB-PSNC]         — Narrative Standards</li> <li>Please specify a separate number for each type of violation, e.g. report, notification, and/or NSCIU certification.</li> </ul> |   |         |                         |                            |                     |           |                |                        |       |   |       |             |          |  |          |
| TCEQ-20218  | с Т   | PDE     | S Pretre                | eatmen                     | t Pro               | gran      | ı Ann          | ual F                  | Repo  | rt Form   |       | Reı         | vised    | July 20  | 07       |

# **Texas Commission on Environmental Quality**

INTEROFFICE MEMORANDUM

**Date:** 5/30/2024

To: Municipal Team

Thru: Colleen Cook, Pretreatment Team Leader
From: Jessica Alcoser, Pretreatment Coordinator

Subject: Pretreatment program option for the TPDES Permit No. WQ0014416001,

City of Denton – Clear Creek WWTP summary sheet

I have reviewed the above referenced permit and have placed the following standard and any additional language and memo in this folder: <u>Permit</u>

Option 4- General Pretreatment language for POTWs without *regulated* industrial users on the collection system, but <u>with</u> an approved Pretreatment Program.

Within this standard language, the Pretreatment Program has incorporated additional pretreatment language requirements. Please incorporate the following language for permittee's FACT SHEET, if applicable, under:

#### 1. INDUSTRIAL WASTE CONTRIBUTION

The Clear Creek WWTP does not appear to receive significant industrial wastewater contributions.

# 2. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 308 which references 40 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.

The permittee has a pretreatment program which was approved by the U.S. Environmental Protection Agency (EPA) on March 16, 1984, and modified on September 24, 1993, August 31, 2005, June 28, 2013, and April 5, 2022 (Streamlining Rule). The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which during the preceding twelve months were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of **March** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

Effective December 21, 2025, the permittee must submit the pretreatment program annual status report electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. [rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].

The permittee is under a continuing duty to: establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, to develop and enforce local limits as necessary, and to modify the approved POTW pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee is required to effectively enforce such limits and to modify their pretreatment program, including the Legal Authority, Enforcement Response Plan, and/or Standard Operating Procedures, if required by the Executive Director to reflect changing conditions at the POTW.

# 3. SUMMARY OF CHANGES FROM EXISTING PERMIT

The pretreatment language has been updated from the current permit. The pretreatment requirements will continue until permit expiration. Please see specific details in the Pretreatment Requirements Section of the fact sheet.

The TCEQ is committed to accessibility.

To request a more accessible version of this report, please contact the TCEQ Help Desk at (512) 239-4357.



# Compliance History Report

Compliance History Report for CN600358980, RN103935516, Rating Year 2023 which includes Compliance History (CH) components from September 1, 2018, through August 31, 2023.

| Customer, Respondent, or Owner/Operator: | CN600358980, City of Dentor                   | n <b>Cla</b>     | ssification: SATISFACTO                              | RY <b>Rating</b>     | <b>:</b> 8.25 |
|--|---|------------------|--|----------------------|---------------|
| Regulated Entity:                        | RN103935516, CLEAR CREEK<br>RECLAMATION PLANT | WATER Cla        | ssification: UNCLASSIF                               | IED Rating           | :             |
| Complexity Points:                       | 1   | Rep              | eat Violator: NO                                     |                      |               |
| CH Group:                                | 08 - Sewage Treatment Facilit                 | ties             |  |                      |               |
| Location:                                | APPROX 1200 FT EAST OF FM<br>DENTON COUNTY    | 1 1428 AND DIREC | TLY NORTH OF HARTLEE FIE                             | ELD ROAD DENTON      | , TX,         |
| TCEQ Region:                             | REGION 04 - DFW METROPLE                      | ΣX               |  |                      |               |
| ID Number(s):<br>WASTEWATER PERMIT WQ0   | 14416001                                      | WASTEWA          | <b>ITER</b> EPA ID TX0125628                         |                      |               |
| Compliance History Peri                  | <b>d:</b> September 01, 2018 to A             | August 31, 2023  | Rating Year: 2023                                    | Rating Date:         | 09/01/2023    |
| Date Compliance History                  | Report Prepared: June                         | e 10, 2024       |  | -                    |               |
| Agency Decision Requiri                  | g Compliance History:                         |                  | ce, renewal, amendment, mo<br>evocation of a permit. | odification, denial, |               |
| Component Period Selec                   | <b>ed:</b> May 01, 2018 to June               | 10, 2024         |  |                      |               |
| TCEQ Staff Member to C                   | ntact for Additional Info                     | ormation Rega    | rding This Compliance                                | History.             |               |
| Name: PT                                 |   |                  | <b>Phone:</b> (512) 239-35                           | 581                  |               |
| _  | ntact for Additional Info                     | ormation Rega    | -  | -                    |               |

#### Site and Owner/Operator History:

1) Has the site been in existence and/or operation for the full five year compliance period?

2) Has there been a (known) change in ownership/operator of the site during the compliance period?

## Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:

N/A

**B.** Criminal convictions:

N/A

C. Chronic excessive emissions events:

N/A

D. The approval dates of investigations (CCEDS Inv. Track. No.):

N/A

E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

F. Environmental audits:

N/A

G. Type of environmental management systems (EMSs):

H. Voluntary on-site compliance assessment dates:

N/A

I. Participation in a voluntary pollution reduction program:

N/A

J. Early compliance:

N/A

**Sites Outside of Texas:** 

N/A

# **DMR DATA**

# **WQ0014416001 - CITY OF DENTON**

| EPA ID |                   |         |           | Reported Measure |
|--------|-------------------|---------|-----------|------------------|
|        | Monitoring Period | Outfall | Parameter |                  |
|        |                   |         |           | Not Received     |

Senate Bill 709 (84th Legislative Session, 2015) amended the Texas Water Code by adding new Section 5.5553, which requires the Texas Commission on Environmental Quality (TCEQ) to provide written notice to you at least thirty (30) days prior to the TCEQ's issuance of draft permits for applications that are located in your district.

City of Denton, 1100 South Mayhill Road, Denton, Texas 76208, has applied to the TCEQ to amend Texas Pollutant Discharge Elimination System Permit No. WQ0014416001 (EPA I.D. No. TX0125628) to authorize an increase in the discharge of treated domestic wastewater to a volume not to exceed an annual average flow of 10,000,000 gallons per day. The domestic wastewater facility is located approximately 12,210 feet east of the intersection of East Sherman Drive and Hartlee Field Road, in the city of Denton, in Denton County, Texas 76208. The discharge route is from the plant site to a series of ponds, thence to Clear Creek, thence to Lewisville Lake in Segment No. 0823 of the Trinity River Basin. TCEQ received this application on May 1, 2024. The permit application will be available for viewing and copying at Pecan Creek Water Reclamation Plant, Administration Building, 1100 South Mayhill Road, Denton, 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/tpdesapplications.

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. <a href="https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.065833,33.28&level=18">https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.065833,33.28&level=18</a>

TCEQ is preparing the initial draft permit. At the time the draft permit is issued, the applicant will be required to publish notice in a newspaper of general circulation, and the TCEQ will provide a copy of the notice of draft permit to persons who have requested to be on a mailing list.

| Questions regarding this application may | be directed to | Mr. Deba | Dutta by | calling 512 |
|--|----------------|----------|----------|-------------|
| 239-4608.                                |                |          |          |             |

| Issuance Date: |  |  |  |
|----------------|--|--|--|

To: Municipal Permits Team

**Wastewater Permitting Section** 

From: Josi Robertson, Water Quality Assessment Team

Water Quality Assessment Section

Date: June 25, 2024

Subject: City of Denton

Wastewater Permit No. WQ0014416001 Critical Conditions Recommendation Memo

The following information applies to **Outfall 001**.

The TexTox menu number is **2** for an intermittent water body within three miles of a perennial freshwater ditch, stream, or river.

This discharge is to bermed ponds thence to Clear Creek.

| Segment No.                                    | 0823          |
|--|---------------|
| Effluent Flow for Aquatic Life (MGD)           | 10 (Proposed) |
| Critical Low Flow [7Q2] (cfs) for intermittent | 0             |
| Critical Low Flow [7Q2] (cfs) for perennial    | 0.96          |
| % Effluent for Acute Aquatic Life (ZID)        | 100           |
| Effluent Flow for Human Health (MGD)           | 10 (Proposed) |
| Harmonic Mean Flow (cfs)                       | 1.47          |

Human Health criteria apply for Fish Only.

There are no human health criteria for the ponds. Acute toxic criteria apply at the point of discharge.

<u>Additional Comments:</u> Standards indicated that the initial waterbody is two ponds that will be bermed so not to receive runoff and have no human health uses assigned. Therefore, assigned as Menu 2 since ponds would be dry without flow from 14416-001's discharge.

## Also check Menu 4.

This discharge is to a Lake Lewisville (Segment 0823).

| Segment No.                          | 0823          |
|--------------------------------------|---------------|
| Effluent Flow for Human Health (MGD) | 10 (Proposed) |
| % Effluent for Human Health          | 15            |

Page 1 of 2

Human Health criteria apply for Water and Fish.

The width of Lake Lewisville at the point of discharge is 103 feet. The human health mixing zone is defined as a volume within a radius of 103 feet from the point of discharge.

# $\underline{\text{OUTFALL LOCATION}}^{\,1}$

| Outfall Number | Latitude    | Longitude   |
|----------------|-------------|-------------|
| 001            | 33.279218 N | 97.067088 W |

<sup>&</sup>lt;sup>1</sup> Latitude and Longitude values are approximations of the location for administrative purposes.

**To:** Municipal Permits Team

**Wastewater Permitting Section** 

From: Josi Robertson

Modeler, Water Quality Assessment Team

Water Quality Assessment Section

**Date:** July 31, 2024

**Subject:** City of Denton

Permit Amendment (WQ0014416001, TX0125628)

Discharge to a tributary of Lewisville Lake (Segment No. 0823)

The referenced applicant is proposing to amend their permit authorizing the discharge of treated domestic wastewater into the watershed of Lake Lewisville (Segment No. 0823). The amendment is to increase the total permitted discharge volume from 0.95 MGD to 10 MGD and add several interim phases. A dissolved oxygen analysis of the referenced discharge was conducted using a Continuously Stirred Tank Reaction (CSTR) model in combination with an uncalibrated QUAL-TX model for the proposed Interim I phase flow of 2.5 MGD, Interim II phase flow of 5.0 MGD, and Final phase flow of 10 MGD. The facility is located in Denton County.

Based on model results, the proposed effluent limits of **5 mg/L CBOD**<sub>5</sub>, **1 mg/L NH**<sub>3</sub>-**N**, and **5.0 mg/L DO** for all three phases are predicted to be adequate to maintain dissolved oxygen levels above the criteria stipulated by the Standards Implementation Team for the ponds (2.0 mg/L), Clear Creek (5.0 mg/L), and Lake Lewisville (5.0 mg/L).

These limits also satisfy the state-wide watershed rule for discharges withing 5 miles upstream of a reservoir used for public drinking water (30 TAC §§309.3(c)).

Coefficients and kinetics used in the models are a combination of site-specific, standardized default, and estimated values. The results of this evaluation can be reexamined upon receipt of information that conflicts with the assumptions employed in this analysis.

Josi Robertson Permit No. 14416-001 July 31, 2024

The Other Requirements section of the permit should include the following language:

The 2.5 MGD and 5.0 MGD phases of the permit shall only be authorized for discharge with the inclusion of ponds in its discharge route prior to entering Clear Creek. These ponds shall have a water surface area of 10 acres (Pond 1) and 5 acres (Pond 2) and shall be maintained at an average water depth of 5 feet at the water surface level.

The 10 MGD phase of the permit shall only be authorized for discharge with the inclusion of an additional third pond in its discharge route prior to entering Clear Creek. Pond 3 shall have a water surface area of 15 acres and shall be maintained at an average water depth of 5 feet at the water surface level.

Segment No. 0823 is not currently listed on the State's inventory of impaired and threatened waters (the 2022 Clean Water Act Section 303(d) list).

The effluent limits recommended above have been reviewed for consistency with the State of Texas Water Quality Management Plan (WQMP). The proposed limits are not contained in the approved WQMP. However, these limits will be included in the next WQMP update.

From: Kanewske, Andrew
To: Josi Robertson

**Subject:** RE: City of Denton TPDES permit amendment (14416-001)

**Date:** Wednesday, July 31, 2024 1:13:20 PM

Josi,

Yes, correct.

Thanks!

# Andrew Kanewske, PE

Kimley-Horn | 801 Cherry Street, Suite 1300, Unit 11, Fort Worth, TX 76102

Direct: 817 349 2829 | Mobile: 817 897 3341

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Celebrating 17 years as one of FORTUNE's 100 Best Companies to Work For

From: Josi Robertson < Josi.Robertson@tceq.texas.gov>

**Sent:** Wednesday, July 31, 2024 11:21 AM

**To:** Kanewske, Andrew <Andrew.Kanewske@kimley-horn.com> **Subject:** RE: City of Denton TPDES permit amendment (14416-001)

Thanks Andrew,

And just so all the information is clear upon next review, Pond 3 (15 acres) will not be constructed until the City is ready to initiate their final 10 MGD phase, correct?

Sincerely,

## Josi Robertson

Water Quality Assessment Team
Texas Commission on Environmental Quality
MC-150
P.O. Box 13087
Austin, Texas 78711-3087
josi.robertson@tceq.texas.gov

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## at www.tceq.texas.gov/goto/customersurvey

From: Kanewske, Andrew < Andrew.Kanewske@kimley-horn.com >

**Sent:** Wednesday, July 31, 2024 9:14 AM

**To:** Josi Robertson < <u>Josi.Robertson@tceq.texas.gov</u>>

**Cc:** rusty.willard@cityofdenton.com; Kubista, Kyle <<u>kyle.kubista@kimley-horn.com</u>>; Atkins, John <<u>John.Atkins@kimley-horn.com</u>>; James, Jeff <<u>Jeff.James@kimley-horn.com</u>>; Sotelo, Santos <<u>Santos.Sotelo@kimley-horn.com</u>>

**Subject:** RE: City of Denton TPDES permit amendment (14416-001)

Josi,

The preference would be to utilize a phased approach to the ponds of Pond 1 = 10 acres, Pond 2 = 5 acres, and Pond 3 = 15 acres, for a total of 30 acres. Thank you and please let us know if you have any additional questions.

Best,

Andrew Kanewske, PE

Kimley-Horn | 801 Cherry Street, Suite 1300, Unit 11, Fort Worth, TX 76102

Direct: 817 349 2829 | Mobile: 817 897 3341

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Celebrating 17 years as one of FORTUNE's 100 Best Companies to Work For

**From:** Josi Robertson < <u>Josi.Robertson@tceg.texas.gov</u>>

**Sent:** Monday, July 29, 2024 9:33 AM

**To:** Kanewske, Andrew <<u>Andrew.Kanewske@kimley-horn.com</u>>

**Cc:** <u>rusty.willard@cityofdenton.com</u>; Kubista, Kyle <<u>kyle.kubista@kimley-horn.com</u>>; Atkins, John <<u>John.Atkins@kimley-horn.com</u>>; James, Jeff <<u>Jeff.James@kimley-horn.com</u>>; Sotelo, Santos <<u>Santos.Sotelo@kimley-horn.com</u>>

**Subject:** RE: City of Denton TPDES permit amendment (14416-001)

Hello Andrew,

I just left you a voicemail but, incase we are not able to catch each other with this game of phone tag, maybe this email will be sufficient.

The current permitted discharge route for 14416-001 includes going through 2 separate ponds (Pond 1 = 10 aces, Pond 2 = 5 acres) before entering Clear Creek.

These current two ponds are sufficient for the proposed 2.5 MGD and 5.0 MGD phases but you are correct that more pond area will be needed for the proposed final (10 MGD) phase.

For the final phase, will the City 1) add an additional third pond (~15 acres) to the discharge route or 2) consolidate and expand the previous two ponds into one larger (30 acre) pond?

Sincerely,

#### Josi Robertson

Water Quality Assessment Team
Texas Commission on Environmental Quality
MC-150
P.O. Box 13087
Austin, Texas 78711-3087
josi.robertson@tceg.texas.gov

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**From:** Kanewske, Andrew <<u>Andrew.Kanewske@kimley-horn.com</u>>

**Sent:** Friday, July 26, 2024 2:30 PM

**To:** Josi Robertson < <u>Josi.Robertson@tceq.texas.gov</u>>

**Cc:** <u>rusty.willard@cityofdenton.com</u>; Kubista, Kyle <<u>kyle.kubista@kimley-horn.com</u>>; Atkins, John <<u>John.Atkins@kimley-horn.com</u>>; James, Jeff <<u>Jeff.James@kimley-horn.com</u>>; Sotelo, Santos <<u>Santos.Sotelo@kimley-horn.com</u>>

**Subject:** RE: City of Denton TPDES permit amendment (14416-001)

Josi,

Just left you a voicemail, but for purposes of picking up this conversation next week - at this point in coordination with Jarad we are assuming one 30 acre pond will be necessary for the final phase 10 MGD discharge. If, per the model, we are able to phase the finishing ponds for Phase I and Phase II, that would certainly be advantageous.

Let us know your thoughts. Thanks,

Andrew Kanewske, PE

Kimley-Horn | 801 Cherry Street, Suite 1300, Unit 11, Fort Worth, TX 76102

Direct: 817 349 2829 | Mobile: 817 897 3341

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# Celebrating 17 years as one of FORTUNE's 100 Best Companies to Work For

**From:** Josi Robertson < <u>Josi.Robertson@tceg.texas.gov</u>>

Sent: Friday, July 26, 2024 9:05 AM

**To:** Kanewske, Andrew <<u>Andrew.Kanewske@kimley-horn.com</u>>

**Cc:** <u>rusty.willard@cityofdenton.com</u>; Kubista, Kyle <<u>kyle.kubista@kimley-horn.com</u>>; Atkins, John <<u>John.Atkins@kimley-horn.com</u>>; James, Jeff <<u>Jeff.James@kimley-horn.com</u>>; Sotelo, Santos <<u>Santos.Sotelo@kimley-horn.com</u>>

**Subject:** RE: City of Denton TPDES permit amendment (14416-001)

Thank-you Andrew,

Is the 30 acres for one large pond, or the sum total of multiple ponds? For modeling purposes, I need the breakdown of acreage for each individual pond in the order that the effluent will flow through them on it's way to Clear Creek.

Sincerely,

#### Josi Robertson

Water Quality Assessment Team
Texas Commission on Environmental Quality
MC-150
P.O. Box 13087
Austin, Texas 78711-3087
josi.robertson@tceq.texas.gov

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From: Kanewske, Andrew < Andrew.Kanewske@kimley-horn.com >

Sent: Friday, July 26, 2024 8:09 AM

**To:** Josi Robertson < <u>Josi.Robertson@tceq.texas.gov</u>>

**Cc:** <u>rusty.willard@cityofdenton.com</u>; Kubista, Kyle <<u>kyle.kubista@kimley-horn.com</u>>; Atkins, John <<u>John.Atkins@kimley-horn.com</u>>; Sotelo, Santos <<u>Santos.Sotelo@kimley-horn.com</u>>

**Subject:** RE: City of Denton TPDES permit amendment (14416-001)

Josi,

Thanks for chatting about this permit yesterday. As we talked about, please see below for Jarad Stockton's summarized analysis on the finishing ponds required at the Clear Creek discharge from a DO standpoint. We are specifically proposing 30 acres of 5-ft depth finishing ponds (bolded below) to meet the proposed 10 MGD final phase discharge amount.

| CCWRP Finishing Ponds Acreage (Depth 5 ft) | Assimilative<br>Capacity (MGD) | Modeled DO Sag<br>Location (km) | Modeled DO @<br>Sag (mg/L) |
|--|--------------------------------|---------------------------------|----------------------------|
| 0  | 1.9                            | 13.25                           | 4.83                       |
| 15   | 6.7                            | 12.55                           | 4.81                       |
| 30   | 10.8                           | 12.55                           | 4.80                       |
| 50   | 16.8                           | 12.55                           | 4.80                       |

Please let me know if you have any concerns/questions about this or if we need to provide the CSTR model.

Thanks,

## Andrew Kanewske, PE

Kimley-Horn | 801 Cherry Street, Suite 1300, Unit 11, Fort Worth, TX 76102

Direct: 817 349 2829 | Mobile: 817 897 3341

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Celebrating 17 years as one of FORTUNE's 100 Best Companies to Work For

From: Kanewske, Andrew

Sent: Thursday, July 25, 2024 2:04 PM

**To:** Josi Robertson < <u>Josi.Robertson@tceq.texas.gov</u>>

Cc: rusty.willard@cityofdenton.com; Kubista, Kyle <kyle.kubista@kimley-horn.com>; Atkins, John

<<u>John.Atkins@kimley-horn.com</u>>; James, Jeff <<u>Jeff.James@kimley-horn.com</u>>

**Subject:** RE: City of Denton TPDES permit amendment (14416-001)

Josi,

Thanks for the information, following up on the voicemail I just left for you. Could you please give me a call at 817-349-2829 when you're able to? I'd like to discuss Jarad Stockton's DO sag and finishing pond modeling that we coordinated on prior to submittal of this permit amendment.

Best,

Andrew Kanewske, PE

Kimley-Horn | 801 Cherry Street, Suite 1300, Unit 11, Fort Worth, TX 76102

Direct: 817 349 2829 | Mobile: 817 897 3341

Connect with us: Twitter | LinkedIn | Facebook | Instagram | Kimley-Horn.com

# Celebrating 17 years as one of FORTUNE's 100 Best Companies to Work For

From: Josi Robertson < Josi.Robertson@tceq.texas.gov >

**Sent:** Thursday, July 25, 2024 12:12 PM

**To:** Kanewske, Andrew <<u>Andrew.Kanewske@kimley-horn.com</u>>

**Cc:** <u>rusty.willard@cityofdenton.com</u>

**Subject:** City of Denton TPDES permit amendment (14416-001)

Hello Andrew,

I'm conducting the DO modeling for the amendment application you submitted for City of Denton (14416-001).

In the application you propose a final daily avg. flow phase of 10 MGD.

In our previous preliminary discussions regarding the City of Denton's outfall options last year I indicated 14416-001 could only accommodate a maximum flow of about 6.5 MGD. Going back over my modeling analysis for this permit application, that is still true. The <a href="maximum">maximum</a> final flow phase that would be allowed for 14416-001 is **7 MGD** (daily avg.). Additionally, the 7 MGD phase would require our strictest effluent limits of 5 mg/L CBOD5, 1 mg/L NH3-N, and 6.0 mg/L min. DO.

Please let me know if the City accepts this reduced final phase flow volume by **COB August 8, 2024**.

Failure to do so will lead to a hold on your application and delay it's processing.

Let me know if you have any questions.

Sincerely,

#### Josi Robertson

Water Quality Assessment Team
Texas Commission on Environmental Quality
MC-150
P.O. Box 13087
Austin, Texas 78711-3087
josi.robertson@tceq.texas.gov

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**To:** Municipal Permits Team

Wastewater Permitting Section

From: M. A. Wallace, PhD; Standards Implementation Team maw

Water Quality Assessment Section

Water Quality Division

**Thru:** Brad Caston, Standards Implementation Peer Review

Water Quality Assessment Section

Water Quality Division

**Date:** 6/18/2024

**Subject:** City of Denton; Permit no. 14416-001

Amendment; Application received 5/1/2024

The discharge route for the above referenced permit is to a series of ponds, thence to Clear Creek, thence to Lewisville Lake in Segment 0823 of the Trinity River Basin. The designated uses and dissolved oxygen criterion as stated in Appendix A of the Texas Surface Water Quality Standards (30 Texas Administrative Code §307.10) for Segment 0823 are primary contact recreation, public water supply, high aquatic life use, and 5.0 mg/L dissolved oxygen.

Since the discharge is directly to an unclassified water body, the permit action was reviewed in accordance with 30 Texas Administrative Code §307.4(h) and (l) of the 2022 Texas Surface Water Quality Standards and the *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010). Based on available information, a preliminary determination of the aquatic life uses in the area of the discharge impact has been performed and the corresponding dissolved oxygen criterion assigned.

Ponds; minimal aquatic life use; 2.0 mg/L dissolved oxygen. Clear Creek; high aquatic life use; 5.0 mg/L dissolved oxygen.

The existing permit includes a 1.0 mg/L Total Phosphorus (TP) limit. Per nutrient screening, the Standards Implementation Team recommends a TP limit of 0.50 mg/L for all proposed phases to preclude degradation of the receiving waters.

A dissolved solids screening was not done during this review as the facility is not constructed. Please have the applicant submit Total Dissolved Solids (TDS), Chloride, and Sulfate results within 90 days of discharge.

In accordance with 30 Texas Administrative Code §307.5 and the *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Clear Creek and Lewisville Lake, which have been identified as high aquatic life uses. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

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.

**To:** Municipal Permits Team

**Wastewater Permitting Section** 

From: Michael B. Pfeil, Standards Implementation Team

Water Quality Assessment Section

Water Quality Division

**Date:** July 31, 2024

**Subject:** City of Denton

Clear Creek WWTP

Permit No. WQ0014416001

# WHOLE EFFLUENT TOXICITY (WET) TESTING (BIOMONITORING)

The following information applies to Outfall 001. We recommend freshwater chronic and 24-hour acute testing. For chronic testing, we recommend the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*) as test species and a testing frequency of once per quarter for both test species for at least the first year of testing. We recommend a dilution series of 30%, 40, 53%, 71%, and 94% with a critical dilution of 94%. The critical dilution is in accordance with the "Aquatic Life Criteria" section of the "Water Quality Based Effluent Limitations/Conditions" section.

For 24-hour acute testing, we recommend a water flea (*Ceriodaphnia dubia* or *Daphnia pulex*) and the fathead minnow as test species and a testing frequency of once per six months.

The current facility discharges at a phase less than 1 MGD. Therefore, there is no WET testing history to review. WET testing will commence within 90 days of initial discharge of the 2.5 MGD interim phase facility.

#### REASONABLE POTENTIAL (RP) DETERMINATION

A reasonable potential 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 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 no WET testing history, and therefore zero failures, a determination of no RP was made, and WET limits are not required. Both test species may be eligible for the testing frequency reduction after one year of testing.