



# Administrative Package Cover Page

**This file contains the following documents:**

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



# Portada de Paquete Administrativo

**Este archivo contiene los siguientes documentos:**

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



# Trang bìa của Gói hành chính

## **Tập này chứa các tài liệu sau:**

1. Tóm tắt đơn đăng ký (bằng ngôn ngữ dễ hiểu)
  - Tiếng Anh
  - Ngôn ngữ thay thế (Tiếng Tây Ban Nha)
  - Ngôn ngữ thay thế (Tiếng Việt)
2. Thông báo đầu tiên (NORI-Thông báo về việc nhận đơn đăng ký và ý định xin giấy phép)
  - Tiếng Anh
  - Ngôn ngữ thay thế (Tiếng Tây Ban Nha)
  - Ngôn ngữ thay thế (Tiếng Việt)
3. Tài liệu đăng ký





## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

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

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

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

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

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

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

The City of Hutto (CN600336861) operates South Wastewater Treatment Facility (RN106037260), a sequencing batch reactor (SBR) system with UV disinfection designed for biological nutrient removal with chemical phosphorous removal capability. The facility is located at 10700 FM 1660, in Hutto, Williamson County, Texas 78634. This application is for renewing the TPDES permit (WQ0011324002) for an existing public wastewater supply system. The permit authorizes the discharge of domestic wastewater at an annual average flow of effluent shall not exceed 2.5 MGD in the Interim I phase (Current), 6.0 MGD in the Interim II phase, and 15.5 MGD in the Final phase.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N), Total Phosphorus (TP), Hydrogen Peroxide and Escherichia coli. Domestic wastewater is treated by a sequencing batch reactor (SBR) system and the treatment units include screening at the

headworks, three sequencing batch reactor (SBR) basins, ultraviolet (UV) disinfection, and post aeration. Waste sludge is thickened and dewatered by a belt filter press before being removed with a sludge hauling truck. Interim II Phase: The plant's capacity will increase from 2.5 MGD to 6.0 MGD by 2026 and transition from a sequencing batch reactor (SBR) system to a continuous flow activated sludge process with an anaerobic, anoxic, aerobic (A2O) configuration for biological nutrient removal, along with UV disinfection and tertiary filtration for additional CBOD5 and TSS removal.

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

### AGUAS RESIDUALES DOMÉSTICAS /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 Hutto (CN600336861) opera South Wastewater Treatment Facility (RN106037260), un sistema de reactor por lotes secuenciales con desinfección ultravioleta diseñado para la eliminación de nutrientes biológicos con capacidad de eliminación química de fósforo. La instalación está ubicada en 10700 FM 1660, en Hutto, Condado de Williamson County, Texas 78634. Esta solicitud es para renovar el permiso TPDES (WQ0011324002) para un sistema existente de suministro público de aguas residuales. El permiso autoriza la descarga de aguas residuales domésticas a un flujo promedio anual de efluentes que no exceda 2.5 millones de galones por día (MGD) en la fase Intermedia I (actual), 6.0 MGD en la fase Intermedia II y 15.5 MGD en la fase Final.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno carbonáceo de cinco días, sólidos suspendidos totales, nitrógeno amoniacal, fósforo total, peróxido de hidrógeno y Escherichia coli. Las aguas residuales domésticas están tratado por un sistema de reactor por lotes secuenciales y las unidades de tratamiento incluyen cribado en los trabajos preliminares, tres tanques de reactor por lotes secuenciales, desinfección ultravioleta y aeración posterior. Los lodos residuales se espesan y deshidratan mediante un filtro prensa de banda antes de ser retirados con un camión de transporte de lodos. En la fase Intermedia II: La capacidad de la planta aumentará de 2.5 MGD a 6.0 MGD para 2026 y pasará de un sistema de reactor por lotes secuenciales a un proceso de lodo activado de flujo continuo con una configuración anaeróbica, anóxica, aeróbica para la eliminación de nutrientes biológicos, junto con desinfección ultravioleta y filtración terciaria para la eliminación adicional de demanda bioquímica de oxígeno carbonáceo de cinco días y sólidos suspendidos totales.

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0011324002

**APPLICATION.** City of Hutto, 500 West Live Oak Street, Hutto, Texas 78634, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011324002 (EPA I.D. No. TX0132926) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 15,500,000 gallons per day. The domestic wastewater treatment facility is located at 10700 Farm-to-Market Road 1660, near the city of Hutto, in Williamson County, Texas 78634. The discharge route is from the plant site directly to Brushy Creek. TCEQ received this application on December 3, 2024. The permit application will be available for viewing and copying at Hutto City Hall, 500 West Live Oak Street, Hutto, in Williamson County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:

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

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.52372,30.50267&level=18>

**ALTERNATIVE LANGUAGE NOTICE.** Alternative language notice in Spanish is available at: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

El aviso de idioma alternativo en español está disponible en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

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

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

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

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

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

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

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

**TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.**

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

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

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

Further information may also be obtained from City of Hutto at the address stated above or by calling Mr. Randy Lock, Regional Operations Superintendent, at 254-307-9826.

Issuance Date: December 11, 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 RENOVACION

**PERMISO NO. WQ0011324002**

**SOLICITUD.** La Ciudad de Hutto, ubicada en 500 West Live Oak Street, en la ciudad de Hutto, Texas 78634, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0011324002 (EPA I.D. No. TX0132926) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de 15,500,000 galones por día. La planta está ubicada en 10700 Farm-to-Market Road 1660, en la ciudad de Hutto, en el Condado de Williamson, Texas. La ruta de descarga es del sitio de la planta a Brushy Creek. La TCEQ recibió esta solicitud el 3 de diciembre del 2024. La solicitud para el permiso estará disponible para leerla y copiarla en el Ayuntamiento de Hutto, ubicado en 500 West Live Oak Street, en la ciudad de Hutto, en el condado de Williamson, Texas, antes de la fecha de publicación de este aviso en el periódico. La aplicación incluidas las actualizaciones y los avisos asociados están disponibles electrónicamente en la siguiente pagina web:

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

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.52372,30.50267&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. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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



**CONTACTOS E INFORMACIÓN 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 Hutto en la dirección indicada arriba o llamando a Randy Lock, el Superintendente de Operaciones Regionales, al 254-307-9826.

Fecha de emission: 11 de diciembre de 2024



# Hutto South Wastewater Treatment Plant

**Renewal Application for Municipal  
Domestic Wastewater  
TPDES Permit No. WQ0011324002**

PREPARED FOR

**Texas Commission on  
Environmental Quality**

December 2024





[GarverUSA.com](http://GarverUSA.com)

December 3, 2024



3755 S. Capital of Texas Highway  
Suite 325  
Austin, TX 78704

TEL 512.485.0009  
FAX 512.485.0010

[www.GarverUSA.com](http://www.GarverUSA.com)

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December 3, 2024

Plan and Technical Review Section  
Water Supply Division MC - 159  
TCEQ  
P. O. Box 13087  
Austin, Texas 78711-3087

**Re:     Permittee:** City of Hutto, Texas  
          **Facility Name:** Hutto South Wastewater Treatment Plant  
          **Texas Pollutant Discharge Elimination System (TPDES) Permit Number:** WQ0011324002  
          **County:** Williamson

To Whom it May Concern:

The purpose of this letter is to provide the Texas Commission on Environmental Quality (TCEQ) with the necessary information to meet the requirements of §305, Subchapter D of the Texas Administrative Code for renewing the TPDES permit for an existing public wastewater supply system.

**Existing Phase:** The plant's permit is set to expire in June 2025, with a current capacity of 2.5 MGD.

**Interim II Phase:** The plant's capacity will increase to 6.0 MGD by the end of 2026.

Garver, LLC, located at 3755 S Capital of Texas Hwy., Suite 325, Austin, Texas 78704, has provided engineering and design services for the Hutto South Wastewater Treatment Plant Expansion Project, which aims to increase the facility's capacity from 2.5 MGD to 6.0 MGD. This expansion is being implemented in partnership with the City of Hutto, which owns the facility, and the Brazos River Authority, which operates it. Construction to achieve the 6.0 MGD build-out capacity is anticipated to be completed by December 2026. Garver LLC has submitted the transmittal letter required for the Interim II Phase expansion to TCEQ. Additionally, TCEQ has approved the proposed Site Development Plans and Specs, Reuse Permit, and Interim PAA Disinfection System for this facility, supporting the project's continued progress.

Attached are the application forms and all supplementary documents to support the permit renewal application. Please review them as part of the renewal process. If you have any questions, please feel free to contact me at 512-539-1970 or by email at [JDMeadows@GarverUSA.com](mailto:JDMeadows@GarverUSA.com).

December 3, 2024

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeff Meadows', with a stylized, flowing script.

Jeffrey Meadows  
Project Manager  
Garver LLC

In Association With:  
City of Hutto,  
Rick Coronado  
Public Works Director



# 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

<b>1. Reason for Submission</b> (If other is checked please describe in space provided.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input checked="" type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other	
<b>2. Customer Reference Number</b> (if issued)	<a href="#">Follow this link to search for CN or RN numbers in Central Registry**</a>	<b>3. Regulated Entity Reference Number</b> (if issued)
CN 600336861		RN 106037260

## SECTION II: Customer Information

<b>4. General Customer Information</b>		<b>5. Effective Date for Customer Information Updates</b> (mm/dd/yyyy)		10/04/2024	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>					
<b>6. Customer Legal Name</b> (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
City of Hutto					
<b>7. TX SOS/CPA Filing Number</b>		<b>8. TX State Tax ID</b> (11 digits)		<b>9. Federal Tax ID</b> (9 digits)	
17414721922		17414721922		74-1472192	
<b>10. DUNS Number</b> (if applicable)		189974074			
<b>11. Type of Customer:</b>		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input checked="" type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
<b>12. Number of Employees</b>				<b>13. Independently Owned and Operated?</b>	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input checked="" type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>14. Customer Role</b> (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
<b>15. Mailing Address:</b>		500 W Live Oak Street			
City		Hutto		State	TX
ZIP		78634		ZIP + 4	3179
<b>16. Country Mailing Information</b> (if outside USA)				<b>17. E-Mail Address</b> (if applicable)	
N/A				rick.coronado@huttotx.gov	

<b>18. Telephone Number</b>	<b>19. Extension or Code</b>	<b>20. Fax Number (if applicable)</b>
( 512 ) 759-4015		( 512 ) 759-4017

## SECTION III: Regulated Entity Information

<b>21. General Regulated Entity Information</b> (If 'New Regulated Entity' is selected, a new permit application is also required.)								
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information								
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>								
<b>22. Regulated Entity Name</b> (Enter name of the site where the regulated action is taking place.)								
Hutto South Wastewater Treatment Plant								
<b>23. Street Address of the Regulated Entity:</b>  (No PO Boxes)	10700 FM 1660							
	<b>City</b>	Hutto	<b>State</b>	TX	<b>ZIP</b>	78634	<b>ZIP + 4</b>	3179
<b>24. County</b>	Williamson							

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

<b>25. Description to Physical Location:</b>	Located on a 155.136 acre parcel between Cottonwood Creek abd Lower Brushy Creek south of intersection of FM 1600 & CR 134.							
<b>26. Nearest City</b>	<b>State</b>				<b>Nearest ZIP Code</b>			
Hutto	TX				78634			
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>								
<b>27. Latitude (N) In Decimal:</b>		30.509840			<b>28. Longitude (W) In Decimal:</b>		-97.523920	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
30	30	35.424	97	31	26.112			
<b>29. Primary SIC Code</b> (4 digits)	<b>30. Secondary SIC Code</b> (4 digits)		<b>31. Primary NAICS Code</b> (5 or 6 digits)			<b>32. Secondary NAICS Code</b> (5 or 6 digits)		
4952			221320					
<b>33. What is the Primary Business of this entity?</b> (Do not repeat the SIC or NAICS description.)								
Municipal Wastewater Treatment Facility								
<b>34. Mailing Address:</b>	500 W Live Oak Street							
	<b>City</b>	Hutto	<b>State</b>	TX	<b>ZIP</b>	78634	<b>ZIP + 4</b>	3179
<b>35. E-Mail Address:</b>	rick.coronado@huttotx.gov							
<b>36. Telephone Number</b>	<b>37. Extension or Code</b>				<b>38. Fax Number (if applicable)</b>			
( 512 ) 759-4019					( ) -			

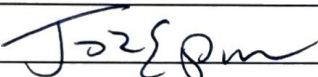
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review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

#### **SECTION IV: Preparer Information**

<b>40. Name:</b>	Ankita Jain			<b>41. Title:</b>	Project Engineer
<b>42. Telephone Number</b>	<b>43. Ext./Code</b>	<b>44. Fax Number</b>	<b>45. E-Mail Address</b>		
( 512 ) 539-1972		( ) -	ajain@garverusa.com		

#### **SECTION V: Authorized Signature**

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

<b>Company:</b>	City of Hutto	<b>Job Title:</b>	City Manager
<b>Name (In Print):</b>	James Earp	<b>Phone:</b>	( 512 ) 759- 4835
<b>Signature:</b>			<b>Date:</b> 12/3/2024





TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**DOMESTIC WASTEWATER PERMIT APPLICATION  
CHECKLIST**

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

APPLICANT NAME: City of Hutto

PERMIT NUMBER (If new, leave blank): WQ00 11324002

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

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

For TCEQ Use Only

Segment Number \_\_\_\_\_ County \_\_\_\_\_

Expiration Date \_\_\_\_\_ Region \_\_\_\_\_  
Permit Number \_\_\_\_\_



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**DOMESTIC WASTEWATER PERMIT APPLICATION  
ADMINISTRATIVE REPORT 1.0**

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

**Section 1. Application Fees (Instructions Page 26)**

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

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

Minor Amendment (for any flow) \$150.00 ☐

**Payment Information:**

Mailed      Check/Money Order Number: 270097  
Check/Money Order Amount: \$2,015.00  
Name Printed on Check: Brazos River Authority

EPAY      Voucher Number: N/A

Copy of Payment Voucher enclosed?      Yes ☒

**Section 2. Type of Application (Instructions Page 26)**

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

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

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

- ☒ Active      ☐ Inactive

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

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

d. Check the box next to the appropriate application type

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

e. For amendments or modifications, describe the proposed changes: N/A

f. For existing permits:

Permit Number: WQ00 11324002

EPA I.D. (TPDES only): TX 0132926

Expiration Date: 06/15/2025

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

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

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

City of Hutto

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

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

CN: 600336861

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

Prefix: Mr.

Last Name, First Name: Earp, James

Title: City Manager

Credential: N/A

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: N/A

Last Name, First Name: N/A

Title: N/A

Credential: 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. See attachment.

## Section 4. Application Contact Information (Instructions Page 27)

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

A. Prefix: N/A

Last Name, First Name: Jain, Ankita

Title: Project Engineer

Credential: P.E

Organization Name: Garver

Mailing Address: 3755 S Capital of Texas Hwy #325 City, State, Zip Code: Austin, TX 78704

Phone No.: 512-539-1972

E-mail Address: ajain@garverusa.com

Check one or both: ☐ Administrative Contact ☒ Technical Contact

B. Prefix: Mr.

Last Name, First Name: Meadows, Jeffrey

Title: Project Manager

Credential: P.E

Organization Name: Garver

Mailing Address: 3755 S Capital of Texas Hwy #325 City, State, Zip Code: Austin, TX 78704

Phone No.: 512-539-1970

E-mail Address: JDMeadows@GarverUSA.com

Check one or both: ☐ Administrative Contact ☒ Technical Contact

## Section 5. Permit Contact Information (Instructions Page 27)

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

A. Prefix: Mr.

Last Name, First Name: Rector, Matthew

Title: City Engineer

Credential: N/A

Organization Name: City of Hutto

Mailing Address: 500 W Live Oak Street City, State, Zip Code: Hutto, TX 78634

Phone No.: 512-759-4025

E-mail Address: Matt.Rector@huttotx.gov

B. Prefix: Mr. Last Name, First Name: Coronado, Enrique  
Title: Public Works Director Credential: N/A  
Organization Name: City of Hutto  
Mailing Address: 500 W Live Oak Street City, State, Zip Code: Hutto, TX 78634  
Phone No.: 512-759-4019 E-mail Address: rick.Coronado@huttotx.gov

## Section 6. Billing Contact Information (Instructions Page 27)

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

Prefix: N/A Last Name, First Name: Geer, Cindy  
Title: Account Payable Clerk Credential: N/A  
Organization Name: Brazos River Authority  
Mailing Address: PO Box 7555 City, State, Zip Code: Waco, Tx 76714  
Phone No.: 254-761-3120 E-mail Address: accountspayable@brazos.org

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

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

Prefix: Mr. Last Name, First Name: Lock, Randy  
Title: Regional Operations Superintendent Credential: N/A  
Organization Name: Brazos River Authority  
Mailing Address: 2405 East Sixth Ave City, State, Zip Code: Belton, TX 76513  
Phone No.: (254) 307-9826 E-mail Address: Randy.Lock@brazos.org

## Section 8. Public Notice Information (Instructions Page 27)

### A. Individual Publishing the Notices

Prefix: Mr. Last Name, First Name: Lock, Randy  
Title: Regional Operations Superintendent Credential: N/A  
Organization Name: Brazos River Authority  
Mailing Address: 2405 East Sixth Ave City, State, Zip Code: Belton, TX 76513  
Phone No.: (254) 307-9826 E-mail Address: Randy.Lock@brazos.org

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

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

☒ E-mail Address

☐ Fax

☒ Regular Mail

**C. Contact permit to be listed in the Notices**

Prefix: Mr. Last Name, First Name: Lock, Randy

Title: Regional operations Superintendent Credential: N/A

Organization Name: Brazos River Authority

Mailing Address: 2405 East Sixth Ave City, State, Zip Code: Belton, TX 76513

Phone No.: 254-307-9826 E-mail Address: Randy.Lock@brazos.org

**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: Hutto City Hall

Location within the building: First Floor

Physical Address of Building: 500 W Live Oak St

City: Hutto County: Williamson

Contact (Last Name, First Name): Coronado, Enrique

Phone No.: (512) 759-4023 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?

☒ Yes ☐ No

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

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

☒ Yes ☐ No

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

#### F. Plain Language Summary Template

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

**Attachment:** See attached.

#### G. Public Involvement Plan Form

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

**Attachment:** N/A

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

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. RN 106037260

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

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

Hutto South Wastewater Treatment Plant

C. Owner of treatment facility: City of Hutto

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

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

Prefix: Mr.

Last Name, First Name: Earp, James

Title: City Manager

Credential: N/A

Organization Name: City of Hutto

Mailing Address: 500 W Live Oak Street

City, State, Zip Code: Hutto, TX, 78634

Phone No.: 512-759-4835

E-mail Address: James.Earp@Huttotx.gov

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



E. Owner of effluent disposal site:

Prefix: N/A

Last Name, First Name: N/A

Title: N/A

Credential: N/A

Organization Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A

E-mail Address: N/A

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

**Attachment:** N/A

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

Prefix: N/A

Last Name, First Name: N/A

Title: N/A

Credential: N/A

Organization Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A

E-mail Address: N/A

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

**Attachment:** N/A

## Section 10. TPDES Discharge Information (Instructions Page 31)

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

☒ Yes ☐ No

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

N/A

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

☒ Yes ☐ No

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

N/A

City nearest the outfall(s): Hutto

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

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

☒ Yes ☒ No

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

- ☐ Authorization granted      ☐ Authorization pending

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

**Attachment:** N/A

- D. For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: Current Phase (2.5 MGD), Interim II phase (6 MGD), counties within 100 miles downstream of discharge are Williamson and Milam.

## Section 11. TLAP Disposal Information (Instructions Page 32)

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

☐ Yes      ☐ No

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

N/A

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

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

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

N/A

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

## Section 12. Miscellaneous Information (Instructions Page 32)

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

☐ Yes      ☒ No

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

☐ Yes      ☐ No      ☒ Not Applicable

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

N/A

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

☐ Yes ☒ No

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

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account number: N/A

Amount past due: N/A

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, please provide the following information:

Enforcement order number: N/A

Amount past due: N/A

### Section 13. Attachments (Instructions Page 33)

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

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

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

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

☐ Attachment 1 for Individuals as co-applicants

☐ Other Attachments. Please specify: N/A

## Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0011324002

Applicant: City of Hutto

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): Earp, James

Signatory title: City Manager

Signature: \_\_\_\_\_

James Earp  
(Use blue ink)

Date: \_\_\_\_\_

12.3.2024

Subscribed and Sworn to before me by the said James Earp

on this 3 day of December, 2024.

My commission expires on the 8 day of February, 2026.

Angela Kavanaugh  
Notary Public

[SEAL]



Williamson  
County, Texas

# DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

## Section 1. Affected Landowner Information (Instructions Page 36)

- A. Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:
- ☐ The applicant's property boundaries
  - ☐ The facility site boundaries within the applicant's property boundaries
  - ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
  - ☐ The property boundaries of all landowners surrounding the applicant's property (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
  - ☐ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
  - ☐ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
  - ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
  - ☐ The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
  - ☐ The property boundaries of all landowners surrounding the effluent disposal site
  - ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
  - ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located
- B. ☐ Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.
- C. Indicate by a check mark in which format the landowners list is submitted:
- ☐ USB Drive      ☐ Four sets of labels
- D. Provide the source of the landowners' names and mailing addresses: [Click to enter text.](#)
- E. As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?
- ☐ Yes      ☐ No

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

Click to enter text.

## Section 2. Original Photographs (Instructions Page 38)

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

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

## Section 3. Buffer Zone Map (Instructions Page 38)

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

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

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

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

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

- ☐ Yes      ☐ No

# **DOMESTIC WASTEWATER PERMIT APPLICATION**

## **SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)**

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

**Attachment:** See attachment

## WATER QUALITY PERMIT PAYMENT SUBMITTAL FORM

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

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

**Mail this form and the check or money order to:**

*BY REGULAR U.S. MAIL*

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

*BY OVERNIGHT/EXPRESS MAIL*

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

**Fee Code: WQP      Waste Permit No: WQ0011324002**

1. Check or Money Order Number: 270097
2. Check or Money Order Amount: 2015.00
3. Date of Check or Money Order: 10-18-2024
4. Name on Check or Money Order: Brazos River Authority
5. APPLICATION INFORMATION

Name of Project or Site: Hutto South Wastewater Treatment Facility, SIC Code 4952

Physical Address of Project or Site: 10700 Farm-to-Market Road 1660, Hutto, TX 78634

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

**Staple Check or Money Order in This Space**



Not Applicable

## ATTACHMENT 1

### INDIVIDUAL INFORMATION

#### Section 1. Individual Information (Instructions Page 41)

Complete this attachment if the facility applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

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

Full legal name (Last Name, First Name, Middle Initial): N/A

Driver's License or State Identification Number: N/A

Date of Birth: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

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

E-mail Address: N/A

CN: N/A

#### For Commission Use Only:

Customer Number:

Regulated Entity Number:

Permit Number:

# DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

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

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

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

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

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

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

## **Things to Know:**

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

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

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

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

Plain Language Summary ☒ Yes

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

### FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

**TCEQ USE ONLY:**

Application type: \_\_\_\_Renewal \_\_\_\_Major Amendment \_\_\_\_Minor Amendment \_\_\_\_New

County: \_\_\_\_\_ Segment Number: \_\_\_\_\_

Admin Complete Date: \_\_\_\_\_

Agency Receiving SPIF:

\_\_\_\_ Texas Historical Commission

\_\_\_\_ U.S. Fish and Wildlife

\_\_\_\_ Texas Parks and Wildlife Department

\_\_\_\_ U.S. Army Corps of Engineers

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

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

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

The following applies to all applications:

1. Permittee: City of Hutto

Permit No. WQ00 11324002EPA ID No. TX 0132926

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

Hutto South WWTP, located at 10700 FM 1660, in Williamson County, Texas- 78634, treats and discharge wastes directly to Brushy Creek in Segment No. 1244 of the Brazos River Basin. The SWWTP is located approximately 1.5 miles east of the Hutto city limit on City-owned property, with geographic coordinates 30.509840, -97.523920.

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: Enrique (Rick) Coronado

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

Title: Public Works Director

Mailing Address: 500 W. Live oak

City, State, Zip Code: Hutto, TX 78634

Phone No.: 512-759-4019 Ext.: N/A Fax No.: 512-759-4017

E-mail Address: rick.Coronado@huttotx.gov

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

The city of Hutto owns the property,

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

The facility treats and discharge wastes from the Hutto South Wastewater Treatment Facility, SIC Code 4952 located at 10700 Farm-to-Market Road 1660, in Williamson County, Texas 78634 directly to Brushy Creek in Segment No. 1244 of the Brazos River Basin.

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

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

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

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

☐ Disturbance of vegetation or wetlands

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

Approximately 28 surface acres of development will take place on the existing site as part of the 6 MGD expansion, with an estimated construction completion date of November 2026.

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

N/A

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

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

N/A

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

N/A



Brazos River Authority



QUALITY • CONSERVATION • SERVICE

October 21, 2024

Texas Commission on Environmental Quality  
Financial Administration Division  
Cashier's Office, MC-214  
P.O. Box 13087  
Austin, TX 78711-3087

RE: Permit Payment Application Submittal Form  
City of Hutto – Hutto South Wastewater Treatment Facility  
TCEQ Permit No. WQ0011324002 EPA ID No. TX0132926  
(RN – 106037260 CN – 600336861)

Dear Financial Administrative Team,

I am submitting this cover letter for the renewal of an existing TPDES permit without changes. This check submittal is for the renewal application of the City of Hutto RN – 106037260, and CN – 600336861. The permit application package will be submitted soon to the appropriate TCEQ division.

If you have any comments or concerns, I can be reached at [randy.lock@brazos.org](mailto:randy.lock@brazos.org).

Sincerely,

Randy Lock  
Regional Operations Superintendent



GEORGETOWN  
2300 SCENIC DR  
GEORGETOWN, TX 78626-9998  
(800)275-8777

10/21/2024 02:25 PM

Product	Qty	Unit Price	Price
First-Class Mail® Large Envelope Austin, TX 78711 Weight: 0 lb 1.20 oz Estimated Delivery Date Wed 10/23/2024	1		\$1.77
Certified Mail® Tracking #: 70222410000004269715			\$4.85
Return Receipt Tracking #: 9590 9402 6312 0274 7723 46			\$4.10
<b>Total</b>			<b>\$10.72</b>

Grand Total: \$10.72

Credit Card Remit \$10.72

Card Name: MasterCard  
Account #: XXXXXXXXXXXX4040  
Approval #: 046823  
Transaction #: 500  
AID: A0000000041010 Chip  
AL: MASTERCARD  
PIN: Not Required

Text your tracking number to 28777 (2USPS) to get the latest status. Standard Message and Data rates may apply. You may also visit [www.usps.com](http://www.usps.com) USPS Tracking or call 1-800-222-1811.

In a hurry? Self-service kiosks offer quick and easy check-out. Any Retail Associate can show you how.

Preview your Mail  
Track your Packages  
Sign up for FREE ®  
<https://informedelivery.usps.com>

All sales final on stamps and postage.  
Refunds for guaranteed services only.  
Thank you for your business.

Tell us about your experience.  
Go to: <https://postalexperience.com/Pos>  
or scan this code with your mobile device,



or call 1-800-410-7420.



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

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

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

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

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

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

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

The City of Hutto (CN600336861) operates South Wastewater Treatment Facility (RN106037260), a sequencing batch reactor (SBR) system with UV disinfection designed for biological nutrient removal with chemical phosphorous removal capability. The facility is located at 10700 FM 1660, in Hutto, Williamson County, Texas 78634. This application is for renewing the TPDES permit (WQ0011324002) for an existing public wastewater supply system. The permit authorizes the discharge of domestic wastewater at an annual average flow of effluent shall not exceed 2.5 MGD in the Interim I phase (Current), 6.0 MGD in the Interim II phase, and 15.5 MGD in the Final phase.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N), Total Phosphorus (TP), Hydrogen Peroxide and Escherichia coli. Domestic wastewater is treated by a sequencing batch reactor (SBR) system and the treatment units include screening at the



headworks, three sequencing batch reactor (SBR) basins, ultraviolet (UV) disinfection, and post aeration. Waste sludge is thickened and dewatered by a belt filter press before being removed with a sludge hauling truck. Interim II Phase: The plant's capacity will increase from 2.5 MGD to 6.0 MGD by 2026 and transition from a sequencing batch reactor (SBR) system to a continuous flow activated sludge process with an anaerobic, anoxic, aerobic (A2O) configuration for biological nutrient removal, along with UV disinfection and tertiary filtration for additional CBOD5 and TSS removal.

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

### AGUAS RESIDUALES DOMÉSTICAS /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 Hutto (CN600336861) opera South Wastewater Treatment Facility (RN106037260), un sistema de reactor por lotes secuenciales con desinfección ultravioleta diseñado para la eliminación de nutrientes biológicos con capacidad de eliminación química de fósforo. La instalación está ubicada en 10700 FM 1660, en Hutto, Condado de Williamson County, Texas 78634. Esta solicitud es para renovar el permiso TPDES (WQ0011324002) para un sistema existente de suministro público de aguas residuales. El permiso autoriza la descarga de aguas residuales domésticas a un flujo promedio anual de efluentes que no exceda 2.5 millones de galones por día (MGD) en la fase Intermedia I (actual), 6.0 MGD en la fase Intermedia II y 15.5 MGD en la fase Final.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno carbonáceo de cinco días, sólidos suspendidos totales, nitrógeno amoniacal, fósforo total, peróxido de hidrógeno y Escherichia coli. Las aguas residuales domésticas están tratado por un sistema de reactor por lotes secuenciales y las unidades de tratamiento incluyen cribado en los trabajos preliminares, tres tanques de reactor por lotes secuenciales, desinfección ultravioleta y aeración posterior. Los lodos residuales se espesan y deshidratan mediante un filtro prensa de banda antes de ser retirados con un camión de transporte de lodos. En la fase Intermedia II: La capacidad de la planta aumentará de 2.5 MGD a 6.0 MGD para 2026 y pasará de un sistema de reactor por lotes secuenciales a un proceso de lodo activado de flujo continuo con una configuración anaeróbica, anóxica, aeróbica para la eliminación de nutrientes biológicos, junto con desinfección ultravioleta y filtración terciaria para la eliminación adicional de demanda bioquímica de oxígeno carbonáceo de cinco días y sólidos suspendidos totales.

## INSTRUCTIONS

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

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

### **Example 1: Industrial Wastewater TPDES Application (ENGLISH)**

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

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

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

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

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

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

## **Example 2: Domestic Wastewater TPDES Renewal application**

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

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

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

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>), total suspended solids (TSS), ammonia nitrogen (NH<sub>3</sub>-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, a grit chamber, aeration basins, final clarifiers, sludge digesters, a belt filter press, chlorine contact chambers and a dechlorination chamber.

## **Example 3: Domestic Wastewater TPDES New Application**

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

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

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

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>), total suspended solids (TSS), ammonia nitrogen (NH<sub>3</sub>-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater will be treated by an activated sludge process plant and the treatment units will include a bar screen, a grit chamber, aeration basins, final clarifiers, sludge digesters, a belt filter press, chlorine contact chambers and a dechlorination chamber.

## **Example 4: Domestic Wastewater TLAP Renewal application**

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

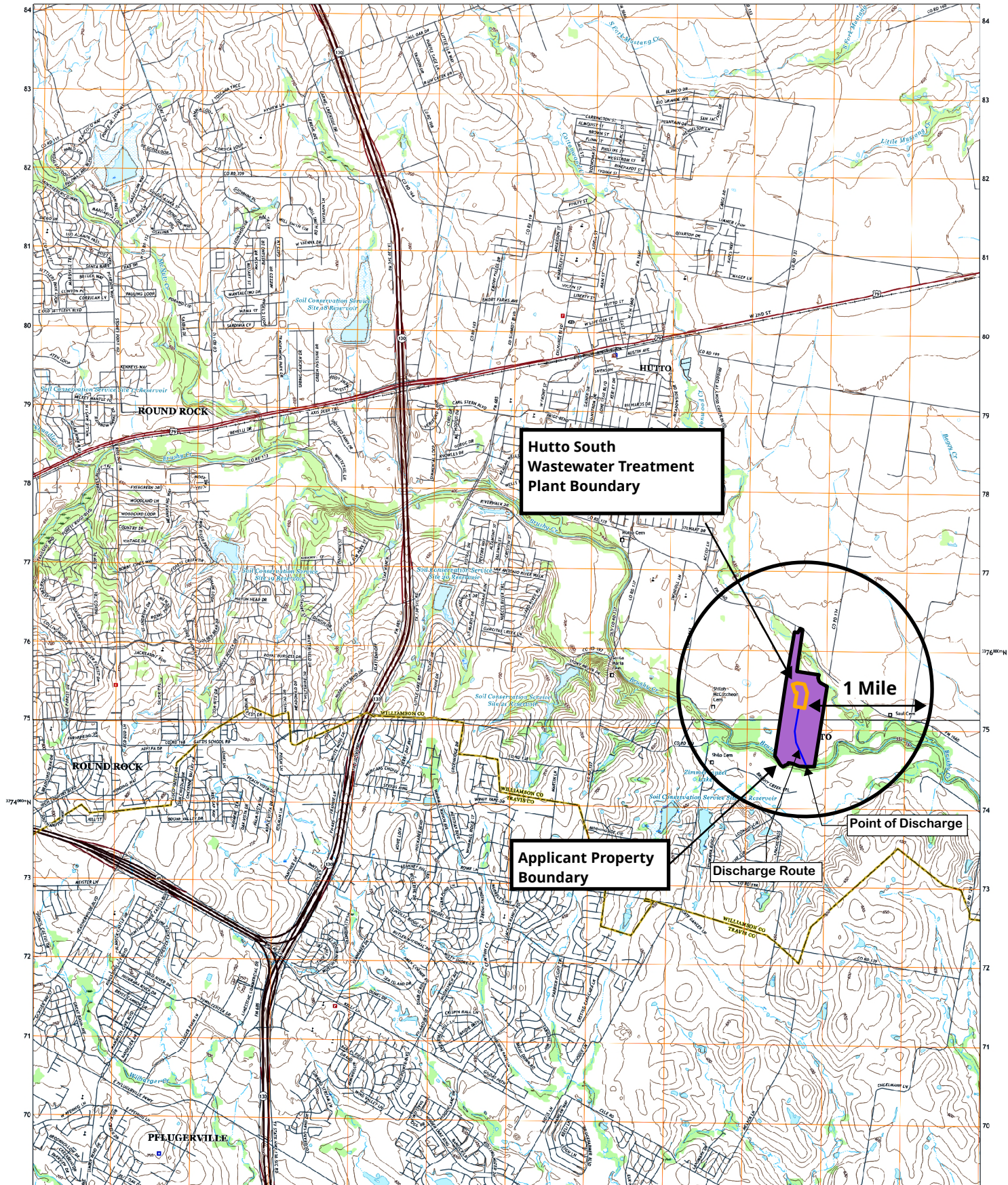
*of the permit application.*

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

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

Land application of domestic wastewater from the facility are expected to contain five-day biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, an equalization basin, an aeration basin, a final clarifier, an aerobic sludge digester, tertiary filters, and a chlorine contact chamber. In addition, the facility includes a temporary storage that equals to at least three days of the daily average flow.

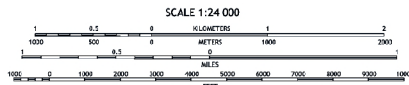




Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)  
 North: Geospatial System of 1983 (NAD83)  
 Vertical: Geospatial System of 1983 (NAD83)  
 This map is not a legal document. Boundaries may be  
 generalized for this map scale. Private lands within government  
 reservations may not be shown. Obtain permission before  
 entering private lands.

Imagery: NADP, September 2016 - November 2016  
 Road: U.S. Census Bureau, 2010  
 Rail: U.S. Census Bureau, 2010  
 Contour: National Elevation Dataset, 2010  
 Boundary: National Elevation Dataset, 2010  
 Wetlands: FWS National Wetlands Inventory, Not Available



CONTOUR INTERVAL: 10 FEET  
 NORTH AMERICAN DATUM OF 1983

This map was produced to conform with the  
 National Geospatial Product Standards.

**ROAD CLASSIFICATION**

Expressway: Local Connector: Local Road:   
 Secondary Hwy: 4WD: US Route: State Route:





# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

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

#### A. Existing/Interim I Phase

Design Flow (MGD): 2.5 MGD

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

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

#### B. Interim II Phase

Design Flow (MGD): 6 MGD

2-Hr Peak Flow (MGD): 19.2 MGD

Estimated construction start date: 09-01-2024

Estimated waste disposal start date: N/A

#### C. Final Phase

Design Flow (MGD): 15.5 MGD

2-Hr Peak Flow (MGD): 49.6 MGD

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

#### D. Current Operating Phase

Provide the startup date of the facility: 06/15/2025 (current permit will expire on 06/15/2025)

### Section 2. Treatment Process (Instructions Page 43)

#### A. Current Operating Phase

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



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

Existing Phase: The SWWTP has a current permitted annual average daily flow (AADF) capacity of 2.5 MGD and ultimate permitted capacity of 15.5 MGD AADF. The existing WWTP consists of the following unit processes before being discharged to Brushy Creek: screening at the headworks, three sequencing batch reactor (SBR) basins, ultraviolet (UV) disinfection, and post aeration. Waste sludge is thickened and dewatered by a belt filter press before being removed with a sludge hauling truck. Interim II Phase: The plant's capacity will increase from 2.5 MGD to 6.0 MGD by 2026 and transition from a sequencing batch reactor (SBR) system to a continuous flow activated sludge process with an anaerobic, anoxic, aerobic (A2O) configuration for biological nutrient removal, along with tertiary filtration for additional Biochemical Oxygen Demand (BOD) and TSS removal. This upgrade will enable the SWWTP to meet the TCEQ Type 1 Reuse effluent requirements, with the ability to reuse either onsite or through an automated water vending station. See attached process flow diagram for additional information.

## B. Treatment Units

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

**Table 1.0(1) - Treatment Units**

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Existing facility: See attachment for existing facilities summary.		
Headworks/Screening	1	28'-5"x7'-5"x5'
SBRs	3	74'x74'x22'
Post Equalization Basin	1	32'x12'x32'
UV Disinfection	2 channels	30'x5'x4'
Post Aeration Basin	1	22'x22'x14'
Effluent Parshall Flume	1	12'x12'x3'-6"
Aerated Sludge Holding Tank	1	58'-5"x21'
Belt Filter Press/Dewatering Building	1	90'x36'
Biofilter Odor Control	1	50'x24'
Interim II Phase (6 MGD):	See attachment for proposed treatment units and capacity information.	

## C. Process Flow Diagram

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

**Attachment:** See attachment

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

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

- Latitude: 30.494879

- Longitude: -97.522363

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

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

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

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

**Attachment:** See attachment.

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

The City of Hutto owns two wastewater treatment plants which are operated by the Brazos River Authority (BRA): Central WWTP and South WWTP.

South WWTP currently accepts wastewater from the Brushy Creek basin and the South Cottonwood Creek basin (excluding flow to the Creekside LS). It also accepts flow from the Wilco Ranch, Emory Crossing, and Mustang Creek lift stations which are in the North Cottonwood Creek and Mustang Creek basins. In the future, it will accept flow from the Boggy Creek and North FM 1660 basins which are not yet built out. The WWTP was constructed in 2017 and has a current permitted AADF capacity of 2.0 MGD and an ultimate permitted capacity of 15.5 MGD AADF. Influent flow is pumped directly to the plant headworks from several lift stations in the collection system including the Glenwood, Enclave, Farley, and Brooklands lift stations. Two relief interceptors (the Glenwood and Brushy Creek Interceptors) and a new influent lift station at the plant are currently in design which will allow flow to enter the plant by gravity. The existing population served by South WWTP is 24,400, which is approximately 66.6% of the current population of the city. Please see the attached WW CCN for the City of Hutto for reference.

**Collection System Information for wastewater TPDES permits only:** Provide information for each **uniquely owned** collection system, existing and new, served by this facility, including satellite collection systems. **Please see the instructions for a detailed explanation and examples.**

#### Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
South WWTP	City of Hutto	Public	24,400

## Section 4. Unbuilt Phases (Instructions Page 45)

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

☒ Yes ☐ No

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

☐ Yes ☒ No

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

N/A

## Section 5. Closure Plans (Instructions Page 45)

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

☒ Yes ☐ No

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

☐ Yes ☒ No

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

N/A

## Section 6. Permit Specific Requirements (Instructions Page 45)

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

### A. Summary transmittal

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

☒ Yes ☐ No

If **yes**, provide the date(s) of approval for each phase: June 29, 2024

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

Hutto South WWTP Expansion to 6 MGD was approved by TCEQ on June 29,2024. See attachment.

## B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

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

The 150' buffer zone is being met, and the 6 MGD plant expansion will be designed to comply with all buffer zone requirements.

## C. Other actions required by the current permit

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

☒ Yes ☐ No

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

1. Prior to construction of the Interim II and Final phases wastewater treatment facility, 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 2b and 2c of this permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.
2. The permittee shall notify the TCEQ Regional Office (MC Region 11) and the Applications Review and Processing Team (MC 148) of the Water Quality Division, in writing at least forty-five days prior to the completion of the new Interim II and Final phase wastewater facility on Notification of Completion Form 20007.

## D. Grit and grease treatment

### 1. *Acceptance of grit and grease waste*

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

☐ Yes ☒ No

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

### 2. *Grit and grease processing*

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

N/A
-----

### 3. *Grit disposal*

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

☐ Yes ☐ No

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

Describe the method of grit disposal.

N/A
-----

### 4. *Grease and decanted liquid disposal*

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

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

N/A

## E. Stormwater management

### 1. Applicability

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

☒ Yes ☐ No

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

☐ Yes ☒ No

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

### 2. MSGP coverage

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

☒ Yes ☐ No

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

TXR05 DP10 (See attached) or TXRNE N/A

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

☐ Yes ☐ No

### 3. Conditional exclusion

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

☐ Yes ☐ No

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

N/A

### 4. Existing coverage in individual permit

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

☐ Yes ☐ No

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

N/A

**5. Zero stormwater discharge**

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

☐ Yes ☐ No

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

N/A

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

**6. Request for coverage in individual permit**

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

☐ Yes ☐ No

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

N/A

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

## F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

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

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

### 1. Acceptance of sludge from other WWTPs

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

☐ Yes ☒ No

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

In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD<sub>5</sub> concentration of the sludge, 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.

### 2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

**If yes to any of the above,** provide the date the plant started or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD<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 or will the facility accept wastes that are not domestic in nature excluding the categories listed above?

☐ Yes ☒ No

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

N/A

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

Is the facility in operation?

☒ Yes ☐ No

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

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

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

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

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD <sub>5</sub> , mg/l	2.00	2.00	1	Grab	8/13/2024 11:50:00 AM
Total Suspended Solids, mg/l	5.71	5.71	1	Grab	8/13/2024 11:50:00 AM
Ammonia Nitrogen, mg/l	<0.100	<0.100	1	Grab	8/13/2024 11:50:00 AM

Nitrate Nitrogen, mg/l	28.2	28.2	1	Grab	8/13/2024 11:50:00 AM
Total Kjeldahl Nitrogen, mg/l	<0.0071 2	<0.0071 2	1	Grab	8/13/2024 11:50:00 AM
Sulfate, mg/l	91.4	91.4	1	Grab	8/13/2024 11:50:00 AM
Chloride, mg/l	192	192	1	Grab	8/13/2024 11:50:00 AM
Total Phosphorus, mg/l	0.596	0.596	1	Grab	8/13/2024 11:50:00 AM
pH, standard units	7.10	7.10	1	Grab	10/16/202 4 8:20:00 AM
Dissolved Oxygen*, mg/l	7.40	7.40	1	Grab	10/16/202 4 8:20:00 AM
Chlorine Residual, mg/l	N/A	N/A	N/A	N/A	N/A
<i>E.coli</i> (CFU/100ml) freshwater	4.1	4.1	1	Grab	10/15/202 4 8:20:00 AM
Enterococci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	662	662	1	Grab	8/13/2024 11:50:00 AM
Electrical Conductivity, µmohs/cm, †	1090	1090	1	Grab	8/13/2024 11:50:00 AM
Oil & Grease, mg/l	1.75	1.75	1	Grab	8/13/2024 11:50:00 AM
Alkalinity (CaCO <sub>3</sub> )*, mg/l	42.7	42.7	1	Grab	8/13/2024 11:50:00 AM

\*TPDES permits only

†TLAP permits only

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

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

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

## Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Salvador Villarreal (See attached list of operators)

Facility Operator's License Classification and Level: Class A Wastewater License

Facility Operator's License Number: WW0034771

## Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 51)

### A. WWTP's Biosolids Management Facility Type

Check all that apply. See instructions for guidance

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

### B. WWTP's Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☐ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation

- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)
- ☒ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- ☐ Sludge Lagoon
- ☐ Temporary Storage (< 2 years)
- ☐ Long Term Storage (>= 2 years)
- ☐ Methane or Biogas Recovery
- ☐ Other Treatment Process: [Click to enter text.](#)

### C. Biosolids Management

Provide information on the *intended* biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize all biosolids management practices listed in the instructions. Rather indicate the management practice the facility plans to use.

#### Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Other	Off-site Third-Party Handler or Preparer	Bulk	389.66 metric tons	Class B: PSRP Aerobic Digestion	3rd party processing facility (the composter) will be responsible for this.
<a href="#">Choose an item.</a>	<a href="#">Choose an item.</a>	<a href="#">Choose an item.</a>		<a href="#">Choose an item.</a>	<a href="#">Choose an item.</a>
<a href="#">Choose an item.</a>	<a href="#">Choose an item.</a>	<a href="#">Choose an item.</a>		<a href="#">Choose an item.</a>	<a href="#">Choose an item.</a>

If “Other” is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): Biosolids are transported offsite to the third-party compost facility mentioned below.

### D. Disposal site

Disposal site name: JV Dirt and Loam 5RC Compost Facility

TCEQ permit or registration number: 2310

County where disposal site is located: Travis

### E. Transportation method

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

Name of the hauler: John W Ware, Wastewater Transport Services

Hauler registration number: TCEQ Registration No. 24343

Sludge is transported as a:

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

## Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 53)

### A. Beneficial use authorization

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

☐ Yes ☒ No

If **yes**, are you requesting to continue this authorization to land apply sewage sludge for beneficial use?

☐ Yes ☐ No

If **yes**, is the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)** attached to this permit application (see the instructions for details)?

☐ Yes ☐ No

### B. Sludge processing authorization

Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?

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

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

☐ Yes ☐ No

## Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

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

### A. Location information

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

- Original General Highway (County) Map:

**Attachment:**

- USDA Natural Resources Conservation Service Soil Map:  
**Attachment:** N/A
- Federal Emergency Management Map:  
**Attachment:** N/A
- Site map:  
**Attachment:** N/A

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

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands
- ☐ Located less than 60 meters from a fault
- ☐ None of the above

**Attachment:** N/A

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

N/A

## B. Temporary storage information

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

Nitrate Nitrogen, mg/kg: N/A

Total Kjeldahl Nitrogen, mg/kg: N/A

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

Phosphorus, mg/kg: N/A

Potassium, mg/kg: N/A

pH, standard units: N/A

Ammonia Nitrogen mg/kg: N/A

Arsenic: N/A

Cadmium: N/A

Chromium: N/A

Copper: N/A

Lead: N/A

Mercury: N/A

Molybdenum: N/A

Nickel: N/A

Selenium: N/A

Zinc: N/A

Total PCBs: N/A

Provide the following information:

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

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

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

### C. Liner information

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

☐ Yes ☐ No

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

N/A

### D. Site development plan

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

N/A

Attach the following documents to the application.

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

**Attachment:** N/A

- Copy of the closure plan

**Attachment:** N/A

- Copy of deed recordation for the site

**Attachment:** N/A

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

**Attachment:** N/A

- Description of the method of controlling infiltration of groundwater and surface water from entering the site

Attachment: N/A

- Procedures to prevent the occurrence of nuisance conditions

Attachment: N/A

#### E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: N/A

## Section 12. Authorizations/Compliance/Enforcement (Instructions Page 55)

#### A. Additional authorizations

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

☒ Yes ☐ No

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

The Type 1 Reuse permit was approved by TCEQ on January 11, 2024, and Interim PAA disinfection system was approved by TCEQ on June 8, 2024. See attached.

#### B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

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

☐ Yes ☒ No

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



N/A

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

### A. RCRA hazardous wastes

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

☐ Yes ☒ No

### B. Remediation activity wastewater

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

☐ Yes ☒ No

### C. Details about wastes received

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

Attachment: N/A

## Section 14. Laboratory Accreditation (Instructions Page 56)

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

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

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

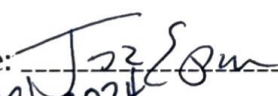
The following certification statement shall be signed and submitted with every application. See the Signature Page section in the Instructions, for a list of designated representatives who may sign the certification.

### CERTIFICATION:

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

Printed Name: James Earp

Title: City Manager

Signature: 

Date: 12/31/2024

# DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

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

## Section 1. Justification for Permit (Instructions Page 57)

### A. Justification of permit need

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

N/A

### B. Regionalization of facilities

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

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

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

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

Attachment: N/A

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

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

☐ Yes ☐ No

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

Attachment: N/A

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

Attachment: N/A

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

Attachment: N/A

## Section 2. Proposed Organic Loading (Instructions Page 59)

Is this facility in operation?

☐ Yes ☐ No

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

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

### A. Current organic loading

Facility Design Flow (flow being requested in application): 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 BOD<sub>5</sub> concentration.

N/A

## B. Proposed organic loading

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

**Table 1.1(1) – Design Organic Loading**

Source	Total Average Flow (MGD)	Influent BOD <sub>5</sub> Concentration (mg/l)
Municipality	N/A	N/A
Subdivision	N/A	N/A
Trailer park - transient	N/A	N/A
Mobile home park	N/A	N/A
School with cafeteria and showers	N/A	N/A
School with cafeteria, no showers	N/A	N/A
Recreational park, overnight use	N/A	N/A
Recreational park, day use	N/A	N/A
Office building or factory	N/A	N/A
Motel	N/A	N/A
Restaurant	N/A	N/A
Hospital	N/A	N/A
Nursing home	N/A	N/A
Other	N/A	N/A
TOTAL FLOW from all sources	N/A	N/A
AVERAGE BOD <sub>5</sub> from all sources	N/A	N/A

## Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 59)

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

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

Total Suspended Solids, mg/l: N/A

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

Other: N/A

**B. Interim II Phase Design Effluent Quality**

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

Total Suspended Solids, mg/l: N/A

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

Other: N/A

**C. Final Phase Design Effluent Quality**

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

Total Suspended Solids, mg/l: N/A

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

Other: N/A

**D. Disinfection Method**

Identify the proposed method of disinfection.

☐ Chlorine: N/A mg/l after N/A minutes detention time at peak flow

Dechlorination process: N/A

☐ Ultraviolet Light: N/A seconds contact time at peak flow

☐ Other: N/A

**Section 4. Design Calculations (Instructions Page 59)**

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

Attachment: N/A

**Section 5. Facility Site (Instructions Page 60)**

**A. 100-year floodplain**

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

☐ Yes ☐ No

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

N/A

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

N/A

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: N/A

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

#### A. Beneficial use authorization

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

☐ Yes ☐ No

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

#### B. Sludge processing authorization

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

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

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

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

Attach a solids management plan to the application.

**Attachment:** N/A

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

- Treatment units and processes dimensions and capacities

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

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



# DOMESTIC WASTEWATER PERMIT APPLICATION

## WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

### Section 1. Domestic Drinking Water Supply (Instructions Page 64)

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

☐ Yes ☒ No

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

Owner of the drinking water supply: N/A

Distance and direction to the intake: N/A

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

Attachment: N/A

### Section 2. Discharge into Tidally Affected Waters (Instructions Page 64)

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

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

#### A. Receiving water outfall

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

#### B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

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

N/A

#### C. Sea grasses

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

☐ Yes ☐ No

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

N/A

### Section 3. Classified Segments (Instructions Page 64)

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

☒ Yes ☐ No

If **yes**, this Worksheet is complete.

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

### Section 4. Description of Immediate Receiving Waters (Instructions Page 65)

Name of the immediate receiving waters: N/A

#### A. Receiving water type

Identify the appropriate description of the receiving waters.

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

Surface area, in acres: N/A

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

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

- ☐ Man-made Channel or Ditch
- ☐ Open Bay
- ☐ Tidal Stream, Bayou, or Marsh
- ☐ Other, specify: N/A

#### B. Flow characteristics

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

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

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

- ☐ USGS flow records
- ☐ Historical observation by adjacent landowners
- ☐ Personal observation
- ☐ Other, specify: N/A

### C. Downstream perennial confluences

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

N/A

### D. Downstream characteristics

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

☐ Yes ☐ No

If yes, discuss how.

N/A

### E. Normal dry weather characteristics

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

N/A

Date and time of observation: N/A

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☐ No

## Section 5. General Characteristics of the Waterbody (Instructions Page 66)

### A. Upstream influences

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

- |   |  |
|---|--|
| <input type="checkbox"/> Oil field activities | <input type="checkbox"/> Urban runoff  |
| <input type="checkbox"/> Upstream discharges  | <input type="checkbox"/> Agricultural runoff                                     |
| <input type="checkbox"/> Septic tanks         | <input type="checkbox"/> Other(s), specify: <a href="#">Click to enter text.</a> |

## B. Waterbody uses

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

- |  |  |
|--|--|
| <input type="checkbox"/> Livestock watering    | <input type="checkbox"/> Contact recreation                                      |
| <input type="checkbox"/> Irrigation withdrawal | <input type="checkbox"/> Non-contact recreation                                  |
| <input type="checkbox"/> Fishing               | <input type="checkbox"/> Navigation  |
| <input type="checkbox"/> Domestic water supply | <input type="checkbox"/> Industrial water supply                                 |
| <input type="checkbox"/> Park activities       | <input type="checkbox"/> Other(s), specify: <a href="#">Click to enter text.</a> |

## C. Waterbody aesthetics

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

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

## DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.1: STREAM PHYSICAL CHARACTERISTICS

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

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

### Section 1. General Information (Instructions Page 66)

Date of study: N/A Time of study: N/A

Stream name: N/A

Location: N/A

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 66)

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

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

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

Number of riffles: N/A

Evidence of flow fluctuations (check one):

☐ Minor ☐ moderate ☐ severe

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

N/A

## Stream transects

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

**Table 2.1(1) - Stream Transect Records**

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

## Section 3. Summarize Measurements (Instructions Page 66)

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

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

Length of stream evaluated, in feet: N/A

Number of lateral transects made: N/A

Average stream width, in feet: N/A

Average stream depth, in feet: N/A

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

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

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

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

Maximum pool depth, in feet: N/A

## DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND DISPOSAL OF EFFLUENT

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

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

Identify the method of land disposal:

- |   |  |
|---|--|
| <input type="checkbox"/> Surface application                    | <input type="checkbox"/> Subsurface application                |
| <input type="checkbox"/> Irrigation                             | <input type="checkbox"/> Subsurface soils absorption           |
| <input type="checkbox"/> Drip irrigation system                 | <input type="checkbox"/> Subsurface area drip dispersal system |
| <input type="checkbox"/> Evaporation                            | <input type="checkbox"/> Evapotranspiration beds               |
| <input type="checkbox"/> Other (describe in detail): <u>N/A</u> |  |

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

For existing authorizations, provide Registration Number: N/A

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

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

**Table 3.0(1) – Land Application Site Crops**

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

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

**Table 3.0(2) – Storage and Evaporation Ponds**

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

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

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

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

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

☐ Yes ☐ No

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

N/A
-----

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

N/A
-----

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

N/A
-----



## Section 5. Annual Cropping Plan (Instructions Page 68)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why. **Attachment:** [Click to enter text.](#)

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

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

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation indicating why. **Attachment:** [Click to enter text.](#)

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

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

**Table 3.0(3) – Water Well Data**

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
<a href="#">N/A</a>			<a href="#">Choose an item.</a>	
			<a href="#">Choose an item.</a>	
			<a href="#">Choose an item.</a>	
			<a href="#">Choose an item.</a>	
			<a href="#">Choose an item.</a>	

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

Attachment: N/A

## Section 7. Groundwater Quality (Instructions Page 69)

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

Attachment: N/A

Are groundwater monitoring wells available onsite? ☐ Yes ☐ No

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

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

Attachment: N/A

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

### A. Soil map

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

Attachment: N/A

### B. Soil analyses

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

Attachment: N/A

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

**Table 3.0(4) – Soil Data**

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number
N/A				

## Section 9. Effluent Monitoring Data (Instructions Page 71)

Is the facility in operation?

☐ Yes ☐ No

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

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

**Table 3.0(5) – Effluent Monitoring Data**

[illegible]

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

N/A

## DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.1: SURFACE LAND DISPOSAL OF EFFLUENT

The following is required for new and major amendment permit applications. Renewal and minor amendment permit applications may be asked for this worksheet on a case by case basis.

### Section 1. Surface Disposal (Instructions Page 72)

Complete the item that applies for the method of disposal being used.

#### A. Irrigation

Area under irrigation, in acres: N/A

Design application frequency:

hours/day N/A And days/week N/A

Land grade (slope):

average percent (%): N/A

maximum percent (%): N/A

Design application rate in acre-feet/acre/year: N/A

Design total nitrogen loading rate, in lbs N/acre/year: N/A

Soil conductivity (mmhos/cm): N/A

Method of application: N/A

Attach a separate engineering report with the water balance and storage volume calculations, method of application, irrigation efficiency, and nitrogen balance.

**Attachment:** N/A

#### B. Evaporation ponds

Daily average effluent flow into ponds, in gallons per day: N/A

Attach a separate engineering report with the water balance and storage volume calculations.

**Attachment:** N/A

#### C. Evapotranspiration beds

Number of beds: N/A

Area of bed(s), in acres: N/A

Depth of bed(s), in feet: N/A

Void ratio of soil in the beds: N/A

Storage volume within the beds, in acre-feet: N/A

Attach a separate engineering report with the water balance and storage volume calculations, and a description of the lining.

**Attachment:** N/A

#### D. Overland flow

Area used for application, in acres: N/A

Slopes for application area, percent (%): N/A

Design application rate, in gpm/foot of slope width: N/A

Slope length, in feet: N/A

Design BOD<sub>5</sub> loading rate, in lbs BOD<sub>5</sub>/acre/day: N/A

Design application frequency:

hours/day: N/A And days/week: N/A

Attach a separate engineering report with the method of application and design requirements according to *30 TAC Chapter 217*.

**Attachment:** N/A

## Section 2. Edwards Aquifer (Instructions Page 73)

Is the facility subject to *30 TAC Chapter 213*, Edwards Aquifer Rules?

☐ Yes ☐ No

If **yes**, is the facility located on the Edwards Aquifer Recharge Zone?

☐ Yes ☐ No

If **yes**, attach a geological report addressing potential recharge features.

**Attachment:** N/A

## DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.2: SURFACE LAND DISPOSAL OF EFFLUENT

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

NOTE: All applicants proposing new/amended subsurface disposal **MUST** complete and submit Worksheet 7.0. This worksheet applies to any subsurface disposal system that **does not meet** the definition of a subsurface area drip dispersal system as defined in *30 TAC Chapter 222, Subsurface Area Drip Dispersal System*.

### Section 1. Subsurface Application (Instructions Page 74)

Identify the type of system:

- ☐ Conventional Gravity Drainfield, Beds, or Trenches (new systems must be less than 5,000 GPD)
- ☐ Low Pressure Dosing
- ☐ Other, specify: N/A

Application area, in acres: N/A

Area of drainfield, in square feet: N/A

Application rate, in gal/square foot/day: N/A

Depth to groundwater, in feet: N/A

Area of trench, in square feet: N/A

Dosing duration per area, in hours: N/A

Number of beds: N/A

Dosing amount per area, in inches/day: N/A

Infiltration rate, in inches/hour: N/A

Storage volume, in gallons: N/A

Area of bed(s), in square feet: N/A

Soil Classification: N/A

Attach a separate engineering report with the information required in *30 TAC § 309.20*, excluding the requirements of *§ 309.20 b(3)(A)* and *(B)* design analysis which may be asked for on a case by case basis. Include a description of the schedule of dosing basin rotation.

Attachment: N/A

### Section 2. Edwards Aquifer (Instructions Page 74)

Is the subsurface system over the Edwards Aquifer Recharge Zone as mapped by TCEQ?

- ☐ Yes ☐ No

Is the subsurface system over the Edwards Aquifer Transition Zone as mapped by TCEQ?

- ☐ Yes ☐ No

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

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

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

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

### Section 1. Administrative Information (Instructions Page 75)

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

B. Click to enter text. Is the owner of the land where the treatment facility is located the same as the owner of the treatment facility?

☐ Yes ☐ No

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

N/A

C. Owner of the subsurface area drip dispersal system: N/A

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

☐ Yes ☐ No

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

N/A

E. Owner of the land where the subsurface area drip dispersal system is located: N/A

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

☐ Yes ☐ No

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

N/A

### Section 2. Subsurface Area Drip Dispersal System (Instructions Page



**A. Type of system**

- ☐ Subsurface Drip Irrigation
- ☐ Surface Drip Irrigation
- ☐ Other, specify: N/A

**B. Irrigation operations**

Application area, in acres: N/A

Infiltration Rate, in inches/hour: N/A

Average slope of the application area, percent (%): N/A

Maximum slope of the application area, percent (%): N/A

Storage volume, in gallons: N/A

Major soil series: N/A

Depth to groundwater, in feet: N/A

**C. Application rate**

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

Hydraulic application rate, in gal/square foot/day: N/A

Nitrogen application rate, in lbs/gal/day: N/A

**D. Dosing information**

Number of doses per day: N/A

Dosing duration per area, in hours: N/A

Rest period between doses, in hours: N/A

Dosing amount per area, in inches/day: N/A

Number of zones: N/A

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

☐ Yes ☐ No

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

**Attachment:** N/A

### Section 3. Required Plans (Instructions Page 75)

#### A. Recharge feature plan

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

**Attachment:** N/A

#### B. Soil evaluation

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

**Attachment:** N/A

#### C. Site preparation plan

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

**Attachment:** N/A

#### D. Soil sampling/testing

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

**Attachment:** N/A

### Section 4. Floodway Designation (Instructions Page 76)

#### A. Site location

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

☐ Yes ☐ No

#### B. Flood map

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

**Attachment:** N/A

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

#### A. Buffer Map

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

**Attachment:** N/A

#### B. Buffer variance request

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

☐ Yes ☐ No

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

Attachment: N/A

## Section 6. Edwards Aquifer (Instructions Page 76)

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

# DOMESTIC WASTEWATER PERMIT APPLICATION

## WORKSHEET 4.0: POLLUTANT ANALYSIS REQUIREMENTS

The following **is required** for facilities with a permitted or proposed flow of **1.0 MGD or greater**, facilities with an approved **pretreatment** program, or facilities classified as a **major** facility. See instructions for further details.

This worksheet is not required minor amendments without renewal.

### Section 1. Toxic Pollutants (Instructions Page 78)

For pollutants identified in Table 4.0(1), indicate the type of sample.

Grab ☒

Composite ☐

Date and time sample(s) collected: 8/13/2024 11:50:00 AM

**Table 4.0(1) – Toxics Analysis**

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile	<1.00	<1.00	1	50
Aldrin	<0.00979	<0.00979	1	0.01
Aluminum	46.7	46.7	1	2.5
Anthracene	N/A	N/A	N/A	10
Antimony	<0.800	<0.800	1	5
Arsenic	0.686	0.686	1	0.5
Barium	29.8	29.8	1	3
Benzene	<0.300	<0.300	1	10
Benzidine	<0.972	<0.972	1	50
Benzo(a)anthracene	<0.972	<0.972	1	5
Benzo(a)pyrene	<0.972	<0.972	1	5
Bis(2-chloroethyl)ether	<0.972	<0.972	1	10
Bis(2-ethylhexyl)phthalate	<2.91	<2.91	1	10
Bromodichloromethane	17.3	17.3	1	10
Bromoform	1.28	1.28	1	10
Cadmium	<0.300	<0.300	1	1
Carbon Tetrachloride	<0.300	<0.300	1	2
Carbaryl	<0.00979	<0.00979	1	5
Chlordane*	<0.0587	<0.0587	1	0.2
Chlorobenzene	<0.300	<0.300	1	10

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Chlorodibromomethane	11.5	11.5	1	10
Chloroform	15.2	15.2	1	10
Chlorpyrifos	<0.00979	<0.00979	1	0.05
Chromium (Total)	<2.00	<2.00	1	3
Chromium (Tri) (*1)	<2.00	<2.00	1	N/A
Chromium (Hex)	<3.00	<3.00	1	3
Copper	3.04	3.04	1	2
Chrysene	<0.972	<0.972	1	5
p-Chloro-m-Cresol	<1.94	<1.94	1	10
4,6-Dinitro-o-Cresol	<1.94	<1.94	1	50
p-Cresol	<1.94	<1.94	1	10
Cyanide (*2)	<10.0	<10.0	1	10
4,4'- DDD	<0.00979	<0.00979	1	0.1
4,4'- DDE	<0.00979	<0.00979	1	0.1
4,4'- DDT	<0.00979	<0.00979	1	0.02
2,4-D	<0.306	<0.306	1	0.7
Demeton (O and S)	<0.00979	<0.00979	1	0.20
Diazinon	<0.00979	<0.00979	1	0.5/0.1
1,2-Dibromoethane	<0.300	<0.300	1	10
m-Dichlorobenzene	<0.300	<0.300	1	10
o-Dichlorobenzene	<0.300	<0.300	1	10
p-Dichlorobenzene	<0.300	<0.300	1	10
3,3'-Dichlorobenzidine	<0.972	<0.972	1	5
1,2-Dichloroethane	<0.300	<0.300	1	10
1,1-Dichloroethylene	<0.300	<0.300	1	10
Dichloromethane	N/A	N/A	N/A	20
1,2-Dichloropropane	<0.300	<0.300	1	10
1,3-Dichloropropene	<0.300	<0.300	1	10
Dicofol	<0.196	<0.196	1	1
Dieldrin	<0.00979	<0.00979	1	0.02
2,4-Dimethylphenol	<0.972	<0.972	1	10
Di-n-Butyl Phthalate	<2.91	<2.91	1	10
Diuron	<0.0287	<0.0287	1	0.09

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Endosulfan I (alpha)	<0.00979	<0.00979	1	0.01
Endosulfan II (beta)	<0.00979	<0.00979	1	0.02
Endosulfan Sulfate	<0.00979	<0.00979	1	0.1
Endrin	<0.00979	<0.00979	1	0.02
Ethylbenzene	<0.300	<0.300	1	10
Fluoride	0.103	0.103	1	500
Guthion	<0.00979	<0.00979	1	0.1
Heptachlor	<0.00979	<0.00979	1	0.01
Heptachlor Epoxide	<0.00979	<0.00979	1	0.01
Hexachlorobenzene	<0.972	<0.972	1	5
Hexachlorobutadiene	<0.972	<0.972	1	10
Hexachlorocyclohexane (alpha)	<0.00979	<0.00979	1	0.05
Hexachlorocyclohexane (beta)	<0.00979	<0.00979	1	0.05
gamma-Hexachlorocyclohexane (Lindane)	<0.00979	<0.00979	1	0.05
Hexachlorocyclopentadiene	<0.972	<0.972	1	10
Hexachloroethane	<0.972	<0.972	1	20
Hexachlorophene	<0.958	<0.958	1	10
Lead	<0.300	<0.300	1	0.5
Malathion	<0.00979	<0.00979	1	0.1
Mercury	0.00455	0.00455	1	0.005
Methoxychlor	<0.0196	<0.0196	1	2
Methyl Ethyl Ketone	<5.00	<5.00	1	50
Mirex	<0.00979	<0.00979	1	0.02
Nickel	<1.00	<1.00	1	2
Nitrate-Nitrogen	28.2	28.2	1	100
Nitrobenzene	<0.972	<0.972	1	10
N-Nitrosodiethylamine	<1.94	<1.94	1	20
N-Nitroso-di-n-Butylamine	<0.972	<0.972	1	20
Nonylphenol	<68.0	<68.0	1	333
Parathion (ethyl)	<0.00979	<0.00979	1	0.1
Pentachlorobenzene	<0.972	<0.972	1	20
Pentachlorophenol	<0.972	<0.972	1	5

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Phenanthrene	<0.972	<0.972	1	10
Polychlorinated Biphenyls (PCB's) (*3)	<0.0979	<0.0979	1	0.2
Pyridine	<0.972	<0.972	1	20
Selenium	<2.00	<2.00	1	5
Silver	<0.500	<0.500	1	0.5
1,2,4,5-Tetrachlorobenzene	<0.972	<0.972	1	20
1,1,2,2-Tetrachloroethane	<0.300	<0.300	1	10
Tetrachloroethylene	<0.600	<0.600	1	10
Thallium	<0.500	<0.500	1	0.5
Toluene	<0.600	<0.600	1	10
Toxaphene	<0.294	<0.294	1	0.3
2,4,5-TP (Silvex)	<0.172	<0.172	1	0.3
Tributyltin (see instructions for explanation)	N/A	N/A	N/A	0.01
1,1,1-Trichloroethane	<0.300	<0.300	1	10
1,1,2-Trichloroethane	<0.300	<0.300	1	10
Trichloroethylene	<0.600	<0.600	1	10
2,4,5-Trichlorophenol	<0.972	<0.972	1	50
TTHM (Total Trihalomethanes)	45.3	45.3	1	10
Vinyl Chloride	<0.300	<0.300	1	10
Zinc	65.5	65.5	1	5

(\*1) Determined by subtracting hexavalent Cr from total Cr.

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

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

## Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab ☒

Composite ☐

Date and time sample(s) collected: 8/13/2024 11:50:00 AM

**Table 4.0(2)A – Metals, Cyanide, and Phenols**

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony	<0.800	<0.800	1	5
Arsenic	0.686	0.686	1	0.5
Beryllium	<0.300	<0.300	1	0.5
Cadmium	<0.300	<0.300	1	1
Chromium (Total)	<2.00	<2.00	1	3
Chromium (Hex)	<3.00	<3.00	1	3
Chromium (Tri) (*1)	<2.00	<2.00	1	N/A
Copper	3.04	3.04	1	2
Lead	<0.300	<0.300	1	0.5
Mercury	0.00455	0.00455	1	0.005
Nickel	<1.00	<1.00	1	2
Selenium	<2.00	<2.00	1	5
Silver	<0.500	<0.500	1	0.5
Thallium	<0.500	<0.500	1	0.5
Zinc	65.5	65.5	1	5
Cyanide (*2)	<10.0	<10.0	1	10
Phenols, Total	<0.972	<0.972	1	10

(\*1) 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 Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrolein	<5.00	<5.00	1	50
Acrylonitrile	<1.00	<1.00	1	50
Benzene	<0.300	<0.300	1	10
Bromoform	1.28	1.28	1	10
Carbon Tetrachloride	<0.300	<0.300	1	2
Chlorobenzene	<0.300	<0.300	1	10
Chlorodibromomethane	11.5	11.5	1	10
Chloroethane	<1.00	<1.00	1	50
2-Chloroethylvinyl Ether	<6.00	<6.00	1	10
Chloroform	15.2	15.2	1	10
Dichlorobromomethane [Bromodichloromethane]	17.3	17.3	1	10
1,1-Dichloroethane	<0.300	<0.300	1	10
1,2-Dichloroethane	<0.300	<0.300	1	10
1,1-Dichloroethylene	<0.300	<0.300	1	10
1,2-Dichloropropane	<0.300	<0.300	1	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<0.300	<0.300	1	10
1,2-Trans-Dichloroethylene	<0.300	<0.300	1	10
Ethylbenzene	<0.300	<0.300	1	10
Methyl Bromide	<1.00	<1.00	1	50
Methyl Chloride	<1.00	<1.00	1	50
Methylene Chloride	<2.50	<2.50	1	20
1,1,2,2-Tetrachloroethane	<0.300	<0.300	1	10
Tetrachloroethylene	<0.600	<0.600	1	10
Toluene	<0.600	<0.600	1	10
1,1,1-Trichloroethane	<0.300	<0.300	1	10
1,1,2-Trichloroethane	<0.300	<0.300	1	10
Trichloroethylene	<0.600	<0.600	1	10
Vinyl Chloride	<0.300	<0.300	1	10

**Table 4.0(2)C – Acid Compounds**

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
2-Chlorophenol	<0.972	<0.972	1	10
2,4-Dichlorophenol	<0.972	<0.972	1	10
2,4-Dimethylphenol	<0.972	<0.972	1	10
4,6-Dinitro-o-Cresol	<1.94	<1.94	1	50
2,4-Dinitrophenol	<1.94	<1.94	1	50
2-Nitrophenol	<0.972	<0.972	1	20
4-Nitrophenol	<1.94	<1.94	1	50
P-Chloro-m-Cresol	<1.94	<1.94	1	10
Pentalchlorophenol	<0.972	<0.972	1	5
Phenol	<0.972	<0.972	1	10
2,4,6-Trichlorophenol	<0.972	<0.972	1	10

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acenaphthene	<0.972	<0.972	1	10
Acenaphthylene	<0.972	<0.972	1	10
Anthracene	<0.972	<0.972	1	10
Benzidine	<0.972	<0.972	1	50
Benzo(a)Anthracene	<0.972	<0.972	1	5
Benzo(a)Pyrene	<0.972	<0.972	1	5
3,4-Benzofluoranthene	<0.972	<0.972	1	10
Benzo(ghi)Perylene	<0.972	<0.972	1	20
Benzo(k)Fluoranthene	<0.972	<0.972	1	5
Bis(2-Chloroethoxy)Methane	<0.972	<0.972	1	10
Bis(2-Chloroethyl)Ether	<0.972	<0.972	1	10
Bis(2-Chloroisopropyl)Ether	<0.972	<0.972	1	10
Bis(2-Ethylhexyl)Phthalate	<2.91	<2.91	1	10
4-Bromophenyl Phenyl Ether	<0.972	<0.972	1	10
Butyl benzyl Phthalate	<2.91	<2.91	1	10
2-Chloronaphthalene	<0.972	<0.972	1	10
4-Chlorophenyl phenyl ether	<0.972	<0.972	1	10
Chrysene	<0.972	<0.972	1	5
Dibenzo(a,h)Anthracene	<0.972	<0.972	1	5
1,2-(o)Dichlorobenzene	<0.300	<0.300	1	10
1,3-(m)Dichlorobenzene	<0.300	<0.300	1	10
1,4-(p)Dichlorobenzene	<0.300	<0.300	1	10
3,3-Dichlorobenzidine	<0.972	<0.972	1	5
Diethyl Phthalate	<2.91	<2.91	1	10
Dimethyl Phthalate	<2.91	<2.91	1	10
Di-n-Butyl Phthalate	<2.91	<2.91	1	10
2,4-Dinitrotoluene	<0.972	<0.972	1	10
2,6-Dinitrotoluene	<0.972	<0.972	1	10
Di-n-Octyl Phthalate	<2.91	<2.91	1	10
1,2-Diphenylhydrazine (as Azo-benzene)	<0.972	<0.972	1	20
Fluoranthene	<0.972	<0.972	1	10

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Fluorene	<0.972	<0.972	1	10
Hexachlorobenzene	<0.972	<0.972	1	5
Hexachlorobutadiene	<0.972	<0.972	1	10
Hexachlorocyclo-pentadiene	<0.972	<0.972	1	10
Hexachloroethane	<0.972	<0.972	1	20
Indeno(1,2,3-cd)pyrene	<0.972	<0.972	1	5
Isophorone	<0.972	<0.972	1	10
Naphthalene	<0.972	<0.972	1	10
Nitrobenzene	<0.972	<0.972	1	10
N-Nitrosodimethylamine	<0.972	<0.972	1	50
N-Nitrosodi-n-Propylamine	<0.972	<0.972	1	20
N-Nitrosodiphenylamine	<0.972	<0.972	1	20
Phenanthrene	<0.972	<0.972	1	10
Pyrene	<0.972	<0.972	1	10
1,2,4-Trichlorobenzene	<0.972	<0.972	1	10

**Table 4.0(2)E - Pesticides**

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Aldrin	<0.00979	<0.00979	1	0.01
alpha-BHC (Hexachlorocyclohexane)	<0.00979	<0.00979	1	0.05
beta-BHC (Hexachlorocyclohexane)	<0.00979	<0.00979	1	0.05
gamma-BHC (Hexachlorocyclohexane)	<0.00979	<0.00979	1	0.05
delta-BHC (Hexachlorocyclohexane)	<0.00979	<0.00979	1	0.05
Chlordane	<0.0587	<0.0587	1	0.2
4,4-DDT	<0.00979	<0.00979	1	0.02
4,4-DDE	<0.00979	<0.00979	1	0.1
4,4,-DDD	<0.00979	<0.00979	1	0.1
Dieldrin	<0.00979	<0.00979	1	0.02
Endosulfan I (alpha)	<0.00979	<0.00979	1	0.01
Endosulfan II (beta)	<0.00979	<0.00979	1	0.02
Endosulfan Sulfate	<0.00979	<0.00979	1	0.1
Endrin	<0.00979	<0.00979	1	0.02
Endrin Aldehyde	<0.00979	<0.00979	1	0.1
Heptachlor	<0.00979	<0.00979	1	0.01
Heptachlor Epoxide	<0.00979	<0.00979	1	0.01
PCB-1242	<0.00979	<0.00979	1	0.2
PCB-1254	<0.00979	<0.00979	1	0.2
PCB-1221	<0.00979	<0.00979	1	0.2
PCB-1232	<0.00979	<0.00979	1	0.2
PCB-1248	<0.00979	<0.00979	1	0.2
PCB-1260	<0.00979	<0.00979	1	0.2
PCB-1016	<0.00979	<0.00979	1	0.2
Toxaphene	<0.294	<0.294	1	0.3

\* For PCBs, if all are non-detects, enter the highest non-detect preceded by a "<".

### Section 3. Dioxin/Furan Compounds

A. Indicate which of the following compounds from may be present in the influent from a contributing industrial user or significant industrial user. Check all that apply.

- ☐ 2,4,5-trichlorophenoxy acetic acid  
Common Name 2,4,5-T, CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid  
Common Name Silvex or 2,4,5-TP, CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate  
Common Name Erbon, CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate  
Common Name Ronnel, CASRN 299-84-3
- ☒ 2,4,5-trichlorophenol  
Common Name TCP, CASRN 95-95-4
- ☒ hexachlorophene  
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.

Hexachlorophene, along with 2,4,5-trichlorophenol, may be present in Hutto's wastewater influent due to personal care products, medical facility discharges, or improper disposal. Its past use and environmental persistence can also contribute to its presence, despite regulations limiting its use.

B. 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 yes, provide a brief description of the conditions for its presence.

N/A

C. If any of the compounds in Subsection A **or** B are present, complete Table 4.0(2)F.

For pollutants identified in Table 4.0(2)F, indicate the type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected: N/A

**Table 4.0(2)F – Dioxin/Furan Compounds**

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

## DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: TOXICITY TESTING REQUIREMENTS

The following **is required** for facilities with a current operating design flow of **1.0 MGD or greater**, with an EPA-approved **pretreatment** program (or those required to have one under 40 CFR Part 403), or are required to perform Whole Effluent Toxicity testing. See instructions for further details.

This worksheet is not required minor amendments without renewal.

### Section 1. Required Tests (Instructions Page 88)

Indicate the number of 7-day chronic or 48-hour acute Whole Effluent Toxicity (WET) tests performed in the four and one-half years prior to submission of the application.

7-day Chronic: N/A

48-hour Acute: N/A

### Section 2. Toxicity Reduction Evaluations (TREs)

Has this facility completed a TRE in the past four and a half years? Or is the facility currently performing a TRE?

☐ Yes ☐ No

**If yes**, describe the progress to date, if applicable, in identifying and confirming the toxicant.

N/A



### Section 3. Summary of WET Tests

If the required biomonitoring test information has not been previously submitted via both the Discharge Monitoring Reports (DMRs) and the Table 1 (as found in the permit), provide a summary of the testing results for all valid and invalid tests performed over the past four and one-half years. Make additional copies of this table as needed.

**Table 5.0(1) Summary of WET Tests**

Test Date	Test Species	NOEC Survival	NOEC Sub-lethal
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

## DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works.

### Section 1. All POTWs (Instructions Page 89)

#### A. Industrial users (IUs)

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

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

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs - non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

#### B. Treatment plant interference

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

☐ Yes ☒ No

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

N/A

### C. Treatment plant pass through

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

☐ Yes ☒ No

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

N/A

### D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

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

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☐ No

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

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

## Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 90)

### A. Substantial modifications

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

☐ Yes ☐ No

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

N/A

## B. Non-substantial modifications

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

☐ Yes ☐ No

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

Click to enter text.

## C. Effluent parameters above the MAL

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

**Table 6.0(1) – Parameters Above the MAL**

Pollutant	Concentration	MAL	Units	Date
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

## D. Industrial user interruptions

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

☐ Yes ☐ No

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

N/A

### Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 90)

#### A. General information

Company Name: N/A

SIC Code: N/A

Contact name: N/A

Address: N/A

City, State, and Zip Code: N/A

Telephone number: N/A

Email address: N/A

#### B. Process information

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

N/A

#### C. Product and service information

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

N/A

#### D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: [Click to enter text.](#)

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: [Click to enter text.](#)

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

#### E. Pretreatment standards

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

Category: Subcategories: N/A

[Click or tap here to enter text.](#) N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

#### F. Industrial user interruptions

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

☐ Yes ☐ No

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

N/A

# WORKSHEET 7.0

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

### CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

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

For TCEQ Use Only  
Reg. No. \_\_\_\_\_  
Date Received \_\_\_\_\_  
Date Authorized \_\_\_\_\_

#### Section 1. General Information (Instructions Page 92)

**1. TCEQ Program Area**

Program Area (PST, VCP, IHW, etc.): N/A

Program ID: N/A

Contact Name: N/A

Phone Number: N/A

**2. Agent/Consultant Contact Information**

Contact Name: N/A

Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A

**3. Owner/Operator Contact Information**

☐ Owner ☐ Operator

Owner/Operator Name: N/A

Contact Name: N/A

Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A

**4. Facility Contact Information**

Facility Name: N/A

Address: N/A

City, State, and Zip Code: N/A

Location description (if no address is available): N/A

Facility Contact Person: N/A

Phone Number: N/A

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

Latitude: N/A

Longitude: N/A

Method of determination (GPS, TOPO, etc.): N/A

Attach topographic quadrangle map as attachment A.

6. **Well Information**

Type of Well Construction, select one:

- ☐ Vertical Injection
- ☐ Subsurface Fluid Distribution System
- ☐ Infiltration Gallery
- ☐ Temporary Injection Points
- ☐ Other, Specify: N/A

Number of Injection Wells: N/A

7. **Purpose**

Detailed Description regarding purpose of Injection System:

N/A
-----

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

8. **Water Well Driller/Installer**

Water Well Driller/Installer Name: N/A

City, State, and Zip Code: N/A

Phone Number: N/A

License Number: N/A

## Section 2. Proposed Down Hole Design

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

**Table 7.0(1) – Down Hole Design Table**

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



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

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

System(s) Dimensions: N/A

System(s) Construction: N/A

### Section 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: N/A
2. Receiving Formation Name of Injection Zone: N/A
3. Well/Trench Total Depth: N/A
4. Surface Elevation: N/A
5. Depth to Ground Water: N/A
6. Injection Zone Depth: N/A
7. Injection Zone vertically isolated geologically? ☐ Yes ☐ No  
Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:  
Name: N/A  
Thickness: N/A
8. Provide a list of contaminants and the levels (ppm) in contaminated aquifer  
Attach as Attachment E.
9. Horizontal and Vertical extent of contamination and injection plume  
Attach as Attachment F.
10. Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc.  
Attach as Attachment G.
11. Injection Fluid Chemistry in PPM at point of injection  
Attach as Attachment H.
12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: N/A
13. Maximum injection Rate/Volume/Pressure: N/A
14. Water wells within 1/4 mile radius (attach map as Attachment I): N/A
15. Injection wells within 1/4 mile radius (attach map as Attachment J): N/A
16. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): N/A
17. Sampling frequency: N/A
18. Known hazardous components in injection fluid: N/A

## Section 5. Site History

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

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

### *Class V Injection Well Designations*

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



**CITY OF HUTTO**

# EXISTING WASTEWATER SYSTEM

**EXISTING INFRASTRUCTURE**

- Existing WWTP
- Existing Lift Station
- Force Main
- Gravity Lines
  - 8" - 12"
  - 13" - 24"
  - 25" - 36"
  - 37" - 54"

**WASTEWATER BASINS**

- Lift Station Subbasin
- Boggy Creek Basin
- Brushy Creek Basin
- Mustang Creek Basin
- North Cottonwood Creek Basin
- North FM 1660 Basin
- San Gabriel River Basin
- South Cottonwood Creek Basin

**BASE LAYERS**

- Toll Road
- US Highway
- State Hwy
- FM Road
- Collector
- Hutto ETJ
- Hutto WW CCN
- Jonah WW CCN
- Rivers (25-5k)
- 100-Year Floodplain
- Waterbody
- Local Parks

**Map Labels:**

- San Gabriel River Basin
- Mustang Creek
- Mustang Creek Basin
- Mustang Creek LS
- Highlands North LS
- North Cottonwood Creek Basin
- Central WWTP
- Creekside Estates LS
- South Cottonwood Creek Basin
- Glenwood LS
- Brooklands LS
- Farley Middle School LS
- The Enclave at Brushy Creek LS
- Country Estates LS
- Chris Kelley Blvd
- Live Oak
- Exchange Blvd
- Wilco Ranch LS
- Emory Crossing LS
- Brushy Creek Basin
- Brushy Creek LS
- Harvest
- Tradesman
- Old Settlers Park Valley Park
- Baseball Complex
- County Road 112
- University Blvd
- County Road 130
- County Road 79
- County Road 1660
- County Road 137
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- County Road 1



## Summary of Existing Facilities

### 1.4.7 Summary of Existing Facilities

Table 1-5 summarizes the capacities of the existing facilities.

**Table 1-5: Summary of Existing Facilities**

Facility	Equipment	Capacity	(R)epurpose/ (A)bandon
<b>Influent Lift Station</b>	N/A – Currently in design by others	25 MGD (P2HF)	-
<b>Headworks</b>	One step screen and one bypass channel	8 MGD (P2HF)	A
<b>Biological Treatment</b>	Three SBRs (2.34 million gallons)	2.5 MGD (AAD)	R
<b>Aeration Blowers</b>	Four blowers (3 duty, 1 standby) 3,000-scfm, 12 psig, each	2.5 MGD (AAD)	R
<b>Post Equalization</b>	One basin (37,000 gallons) Three effluent pumps (2 duty, 1 standby)	8 MGD (P2HF)	R
<b>Disinfection</b>	Two channels with microwave UV	8 MGD (P2HF)	A
<b>Post Aeration</b>	One basin (45,000 gallons) Retrievable fine bubble diffusers Two 600-scfm blowers (1 duty, 1 standby)	8 MGD (P2HF)	A
<b>Effluent Flow Measurement</b>	24-inch Parshall flume	8 MGD (P2HF)	A
<b>Outfall</b>	2,500 feet of 36-inch HDPE	8 MGD (P2HF)	R
<b>Sludge Holding</b>	One ASHT (375,000 gallons) Two recirculation pumps with ejectors	-	R
<b>Sludge Thickening</b>	One 400-gpm rotary drum thickener (RDT) One 285-gpm RDT feed pump One 50-gpm TWAS pump One 52-gpm belt filter press feed pump	-	R
<b>Dewatering</b>	One 2-m belt filter press Two liquid polymer skids (1 duty, 1 standby)	-	R
<b>Odor Control</b>	One 48-foot x 74-foot woodchip biolfilter One 4,740-scfm foul air fan	-	A

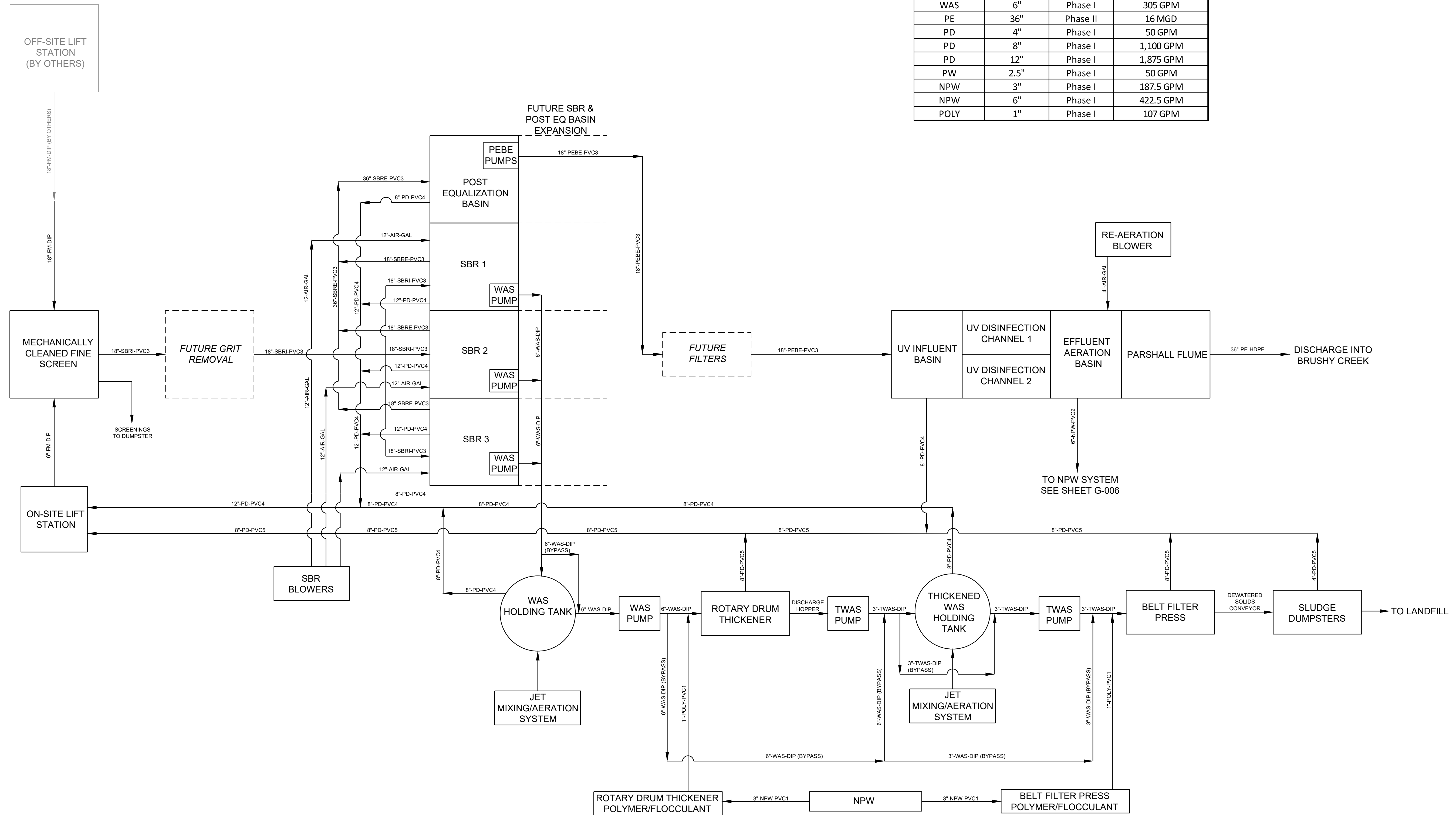
Facility	Equipment	Capacity	(R)epurpose/ (A)bandon
<b>Non-Potable Water</b>	Two 275-gpm pumps (1 duty, 1 standby) Supplies screen, RDT, and belt filter press washdown, polymer makedown, odor control, yard hydrants	-	R
<b>Plant Drain</b>	Lift station with two 325-gpm submersible pumps Drains SBRs, UV channels, odor control pad, and ASHT	-	A

## Summary of Proposed Improvements

**Table ES-2: Summary of Proposed Improvements for the 6.0 MGD Expansion**

<b>Facility</b>	<b>Equipment Recommendation</b>
<b>Influent Screening</b>	Provide new step screens to match the existing step screens at the plant.
<b>Grit Removal</b>	Provide a new vortex grit removal system.
<b>Primary Clarifiers</b>	Provide two new 100-ft diameter primary clarifiers.
<b>Aeration Basins</b>	Provide two new 3.0 MGD A2O basins. Basins will include anaerobic, anoxic, and aerobic zones. The aerobic zones will be equipped with fine bubble disc diffusers.
<b>Aeration Blowers</b>	Provide new multistage centrifugal blowers.
<b>Secondary Clarifiers</b>	Provide two new 120-ft diameter secondary clarifiers with spiral rake scrapers.
<b>RAS/WAS Pump Station</b>	Provide a new RAS/WAS pump station with above-ground flooded-suction centrifugal pumps
<b>Tertiary Filters</b>	Provide new fully submerged cloth media disk filtration.
<b>Chemical Feed</b>	Provide a new alum feed system to the tertiary filters to allow for phosphorous removal as a backup. Provide a new sodium hypochlorite feed system to treat the proposed new reclaimed water system.
<b>UV Disinfection</b>	Provide 45 Degree LPHO UV Technology.
<b>Post Aeration</b>	Provide a new post aeration basin with fine bubble diffusers.
<b>Outfall</b>	No modifications are recommended during the current phase.
<b>Sludge Digestion and Thickening</b>	Reuse the existing SBR tanks as ASHTs and keep the existing fine bubble diffusers. Rework the existing blower piping to allow all blowers to swing between tanks. Provide new progressive cavity sludge feed pumps.
<b>Dewatering</b>	Provide a new centrifuge in a new sludge processing building with a new sludge loading area. Keep the existing belt filter press online as a standby unit.
<b>Odor Control</b>	Provide a new biotrickling filter to serve the new headworks, influent lift station, and repurpose/continue using the existing biofilter to serve the new sludge processing building.
<b>Non-Potable Water System</b>	Provide new vertical turbine pumps at the new post aeration facility. Connect the new pumps to the existing system.
<b>Reclaimed Water System</b>	Provide a new 100,000-gallon reclaimed water storage tank and fill station.

## Existing Process Flow Diagram



### Pipe Design Capacity

Pipe	Size	Design Phase	Design Peak Flow
SBRI	18"	Phase I	8 MGD
SBRE Decant	18"	Phase I	8 MGD
SBRE to PEB	36"	Phase II	16 MGD
PEBE	18"	Phase I	8 MGD
WAS	6"	Phase I	305 GPM
PE	36"	Phase II	16 MGD
PD	4"	Phase I	50 GPM
PD	8"	Phase I	1,100 GPM
PD	12"	Phase I	1,875 GPM
PW	2.5"	Phase I	50 GPM
NPW	3"	Phase I	187.5 GPM
NPW	6"	Phase I	422.5 GPM
POLY	1"	Phase I	107 GPM

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11

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RECORD DRAWING

THIS CONSTRUCTION DOCUMENT  
WAS PREPARED USING  
INFORMATION SUPPLIED BY THE  
CONTRACTOR TO REPRESENT  
CONSTRUCTION CHANGES. THIS  
DOCUMENT IS FOR INFORMATION  
AND REFERENCE IN CONNECTION  
WITH THE OWNER'S USE AND  
OCCUPANCY OF THE PROJECT AND  
IS NOT INTENDED FOR BID, PERMIT  
OR CONSTRUCTION.

BY: Tom O'G

DATE: 3/23/2017

K FRIESE & ASSOCIATES, INC.  
TEXAS HIGHWAY, CITY VIEW 2, SUITE 100, AUSTIN, TEXAS 78746

CITY OF ILLINOIS

CITY OF HULL  
HULL SOUTH WASTEWATER TREATMENT PLANT

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## PROCESS FLOW DIAGRAM



**K-FRIESE  
+ ASSOCIATES**  
PUBLIC PROJECT ENGINEERING

1120 S. Capital of Texas Highway  
CityView 2, Suite 100  
Austin, Texas 78746  
P - 512.338.1704 F - 512.338.1784  
TBPE Firm #6535  
[www.kfriesse.com](http://www.kfriesse.com)



DATE	MAY 25, 2017
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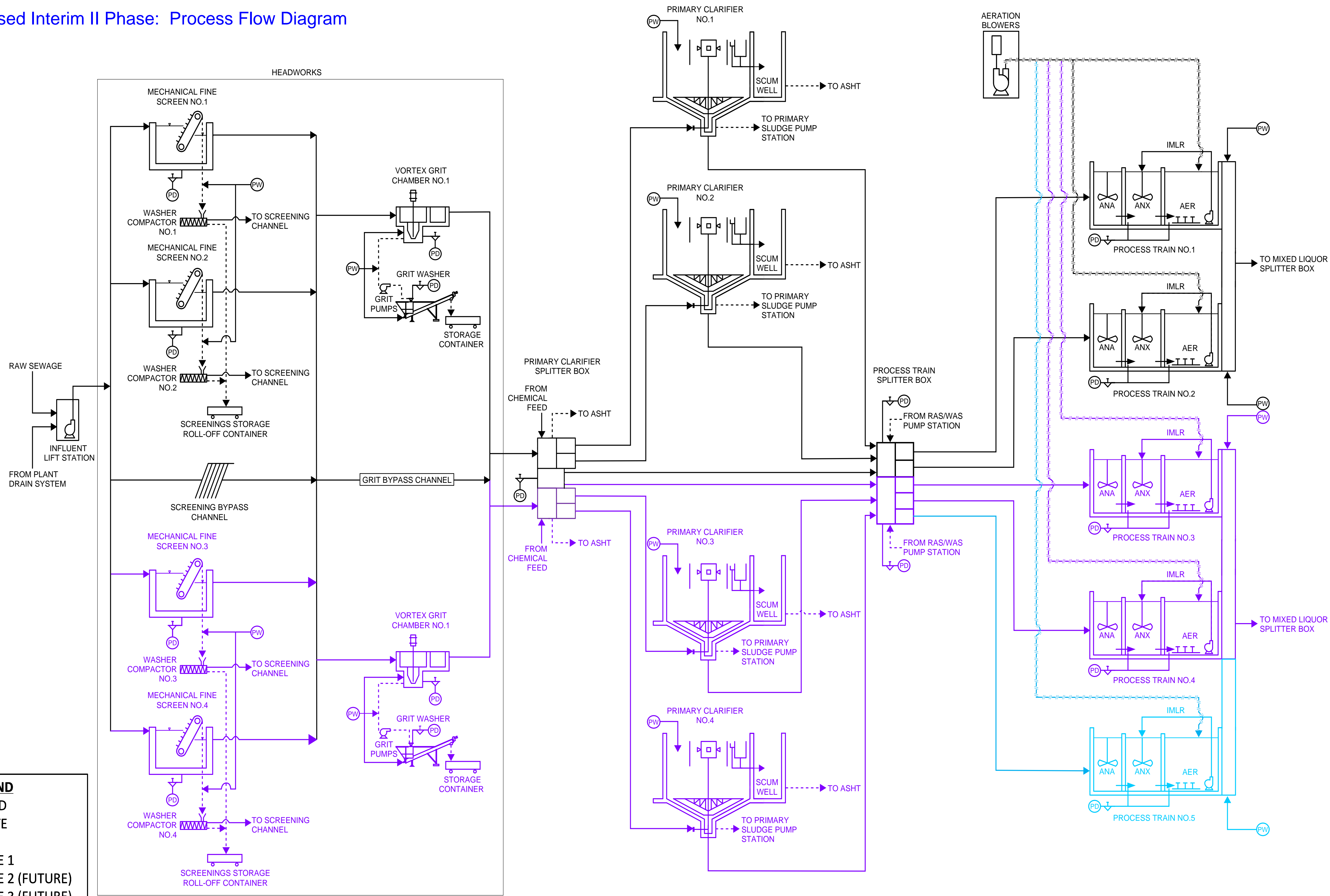
WING NO. **G-005**

ET NO.

6 OF 290



Proposed Interim II Phase: Process Flow Diagram



**LEGEND**

— LIQUID  
- - - WASTE  
- - - - - AIR  
— PHASE 1  
— PHASE 2 (FUTURE)  
— PHASE 3 (FUTURE)

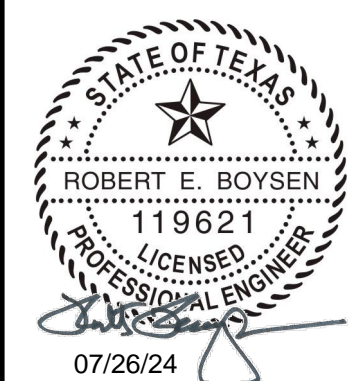
**SYMBOLS**

⬇️Ⓟ PLANT DRAIN SYSTEM  
Ⓟ NON-POTABLE WATER SYSTEM

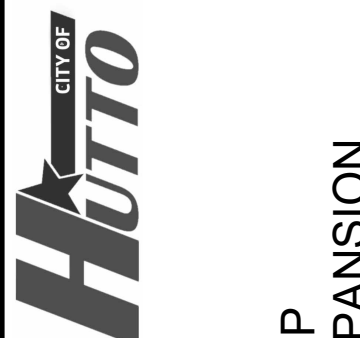


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PROFESSIONAL SERVICES  
AGREEMENT FOR THIS WORK.

REGISTRATION NO. F-5713



BY	DESCRIPTION	DATE	REV



CITY OF HUTTO  
10710 FM 1660  
HUTTO, TX 78634  
HUTTO SOUTH WWTTP  
PHASE 1 - 6 MGD EXPANSION

PROCESS FLOW  
DIAGRAM NO. 1

JOB NO.: 22W07225  
DATE: JULY 2024  
DESIGNED BY: NER  
DRAWN BY: FSR  
CHECKED BY: REB

BAR IS ONE INCH ON  
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DRAWING NUMBER

**01-G020**

SHEET  
NUMBER **020**



Revit File: Autodeskt Docs/22W07145 - Hutto South WWTP Expansion/01 - Hutto South WWTP.rvt  
Plot Date: 7/15/2024 9:48:22 AM

**LEGEND**

LIQUID

WASTE

AIR

PHASE 1

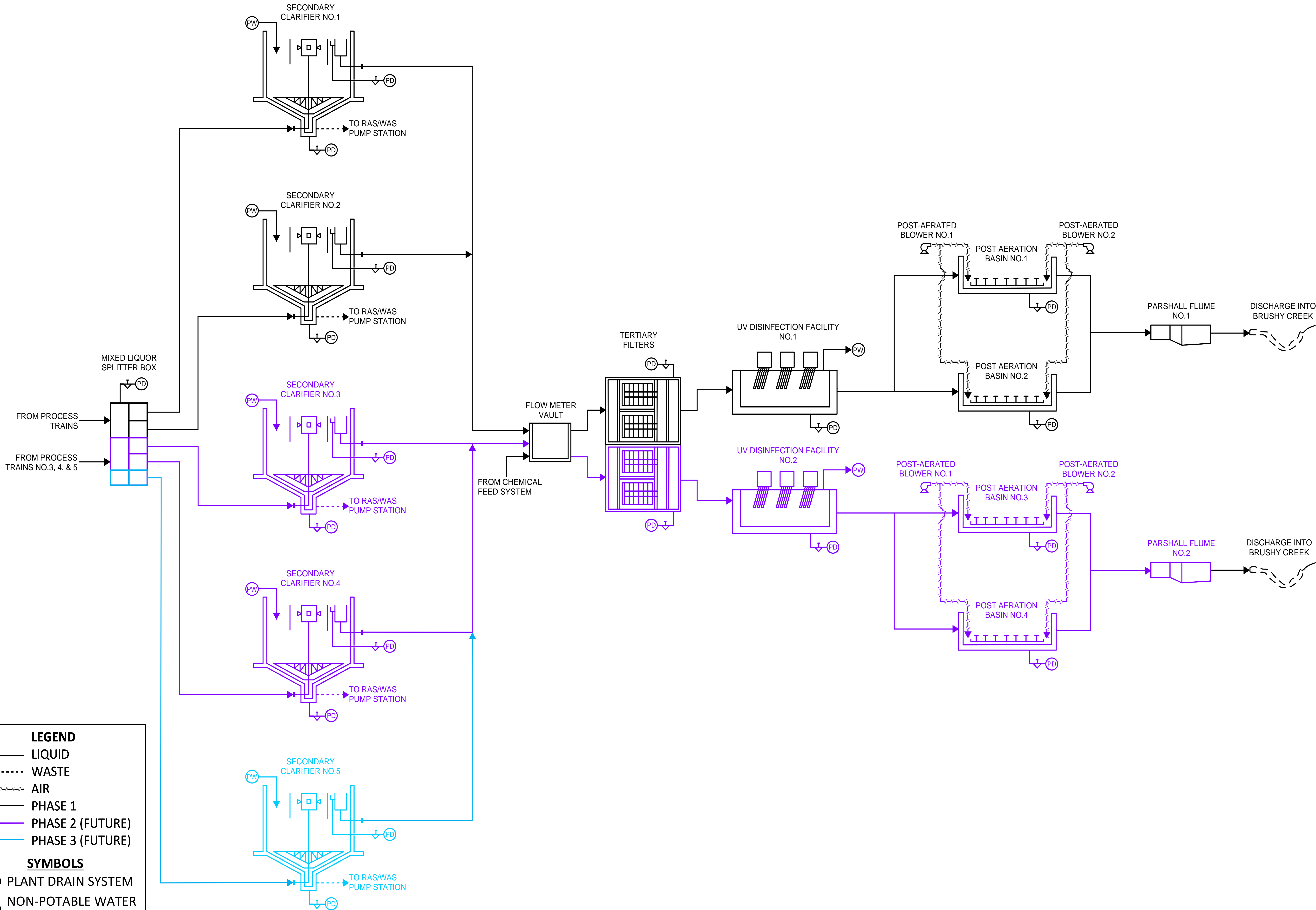
PHASE 2 (FUTURE)

PHASE 3 (FUTURE)

**SYMBOLS**

PLANT DRAIN SYSTEM

NON-POTABLE WATER SYSTEM



**GARVER**

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REGISTRATION NO. F-5713

STATE OF TEXAS  
ROBERT E. BOYSEN  
119621  
LICENSED PROFESSIONAL ENGINEER  
07/26/24

STATE OF TEXAS  
NICOLE E. ROWLETTE  
148483  
LICENSED PROFESSIONAL ENGINEER  
07/26/24

BY	DESCRIPTION	DATE	REV

CITY OF  
**Hutto**  
10710 FM 1660  
HUTTO, TX 78634

**HUTTO SOUTH WWTP  
PHASE 1 - 6 MGD EXPANSION**

PROCESS FLOW  
DIAGRAM NO. 2

JOB NO.: 22W07225  
DATE: JULY 2024  
DESIGNED BY: NER  
DRAWN BY: MP  
CHECKED BY: REB

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DRAWING NUMBER  
**01-G021**

SHEET  
NUMBER **021**

Revit File: Autodeskt Docs/22W07145 - Hutto South WWTP Expansion/01 - Hutto South WWTP.rvt  
Plot Date: 7/15/2024 9:48:22 AM

— LIQUID

- - - WASTE

- . - . - AIR

— EXISTING

— PHASE 1

— PHASE 2 (FUTURE)

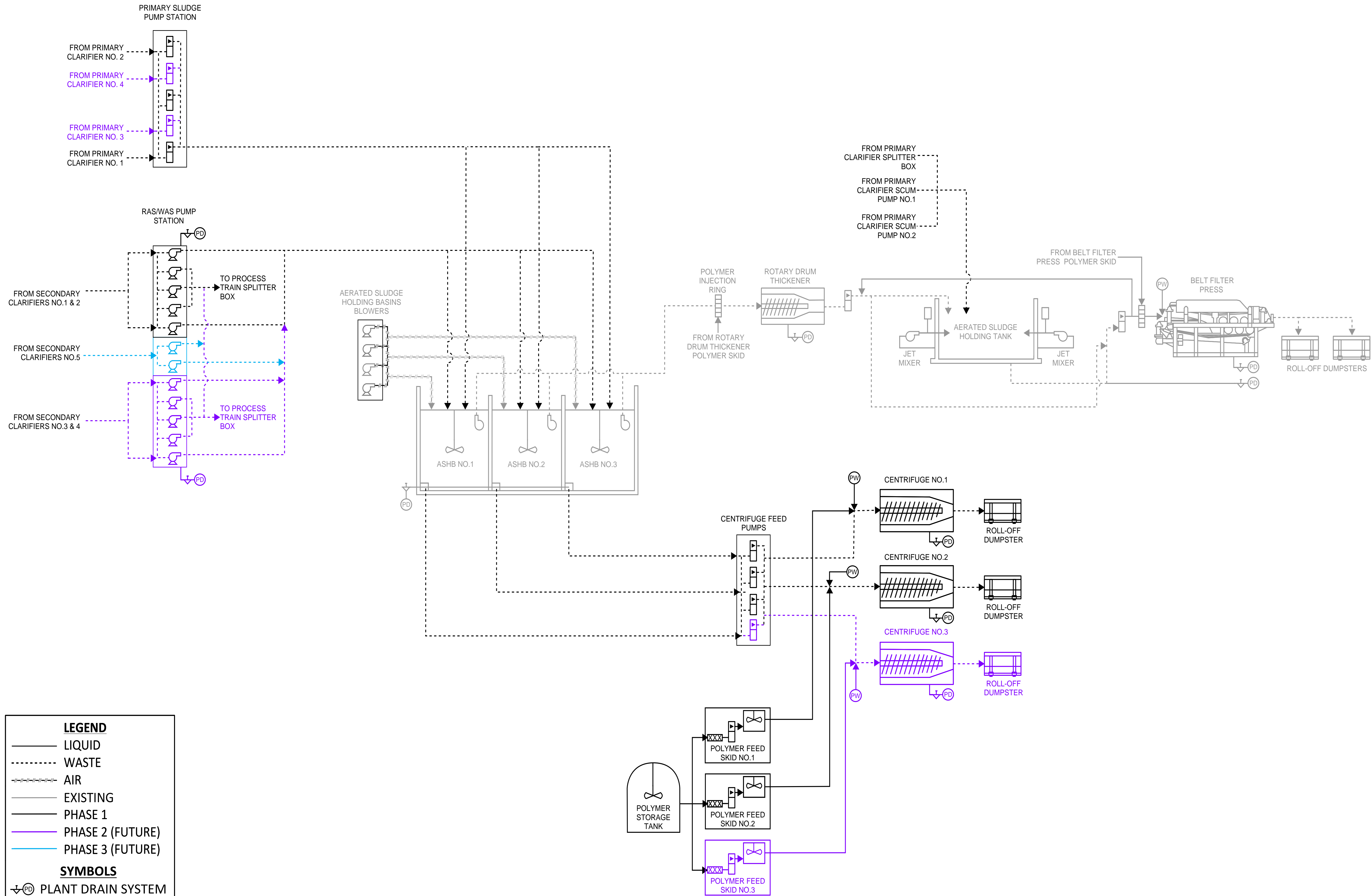
— PHASE 3 (FUTURE)

PLANT DRAIN SYSTEM

NON-POTABLE WATER SYSTEM

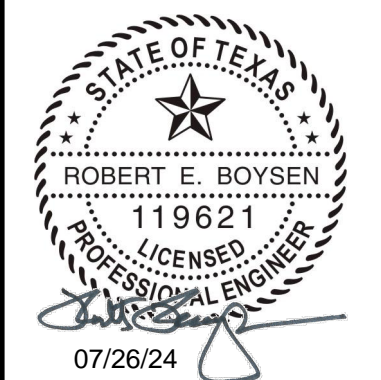
LEGEND

SYMBOLS



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REGISTRATION NO. F-5713



BY	
DESCRIPTION	
DATE	
REV	

CITY OF

Hutto

10710 FM 1660  
HUTTO, TX 78634

CITY OF HUTTO

HUTTO SOUTH WWTP  
PHASE 1 - 6 MGD EXPANSION

PROCESS FLOW  
DIAGRAM NO. 3

JOB NO.: 22W07225  
DATE: JULY 2024  
DESIGNED BY: NER  
DRAWN BY: DP  
CHECKED BY: REB

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DRAWING NUMBER

**01-G022**

SHEET  
NUMBER **022**



File: I:\2022\22w07225 - hutto s wwtp exp final design and bid\Drawings\HSWWTP-05-C101-SI.dwg, Last Save: 7/24/2024 2:00 PM Last saved by: DAPorras  
Last plotted by: Porras, Damian A. Plot Date: 7/25/2024 5:36 PM Plotter Used: None



Existing Site Plan

BIGSKY CAPITAL LTD  
101.541 AC

CITY OF HUTTO  
155.136 AC

STARLIGHT HOMES TEXAS LLC  
48.29 AC

50' ACCESS EASEMENT  
(APPROX. LOCATION)

SCREENING BERM  
LOCATION

100-YR FLOODPLAIN

100-YR FLOODPLAIN



0 50' 100' 200' 300'  
(IN FEET)

A EXISTING STRUCTURES

EXISTING FACILITIES	
A	PLANT DRAIN SYSTEM
B	HEADWORKS/SCREENING
C	SEQUENCING BATCH REACTORS
D	BIOFILTER ODOR CONTROL
E	SBR BLOWERS
F	POST EQUALIZATION BASIN
G	EFFLUENT PUMP STATION
H	UV TREATMENT SYSTEM
I	POST AERATION BASIN
J	EFFLUENT PARSHALL FLUME
K	AERATED SLUDGE HOLDING TANK
L	BELT FILTER BUILDING
M	MAINTENANCE BUILDING
N	OPERATIONS AND LAB
O	ELECTRIC GENERATOR

SURVEY CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	10158333.66	3181106.68	583.96	TRAV
2	10158341.84	3181100.77	584.12	TRAV
3	10157852.60	3181371.96	582.30	TRAV
4	10157667.90	3181358.55	582.21	TRAV
5	10157541.25	3181434.82	579.59	TRAV
6	10157840.23	3181570.25	579.61	TRAV
7	10157909.07	3181168.54	582.23	TRAV
8	10158357.23	3180813.69	585.06	TRAV
9	10156927.34	3180674.63	579.81	TRAV
10	10156818.13	3182139.22	579.75	TRAV
10206	10158114.81	3181288.06	582.69	TRAV

NOTES:

- CONTROL IS BASED ON NAD83 (2011) USING GEOID18. COORDINATES ARE PROJECTED TO TEXAS STATE PLANE COORDINATES, CENTRAL ZONE (4203) US SURVEY FOOT AND ELEVATIONS ARE BASED ON NAVD88. THE DATA WAS PROCESSED USING TRIMBLE RTK-PP, AND VERIFIED USING OPUS PROJECTS.
- BEARINGS ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, CENTRAL ZONE (NAD\_83 (2011)). ALL DISTANCES SHOWN HEREON ARE SURFACE VALUES REPRESENTED IN U.S. SURVEY FEET BASED ON A SURFACE-TO-GRID COMBINED ADJUSTMENT FACTOR OF 0.99989628.



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REGISTRATION NO. F-5713



BY	DESCRIPTION	DATE	REV

CITY OF  
**Hutto**  
10700 FM 1660  
HUTTO, TX 78634

HUTTO SOUTH WWTP  
PHASE 1 - 6 MGD EXPANSION

EXISTING SITE PLAN -  
OVERVIEW

JOB NO.: 22W07225  
DATE: JULY 2024  
DESIGNED BY: SJM  
DRAWN BY: GRG  
CHECKED BY: SSS

BAR IS ONE INCH ON  
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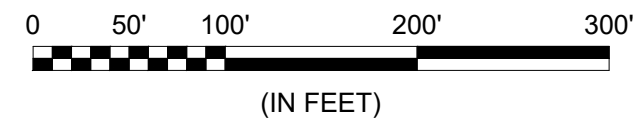
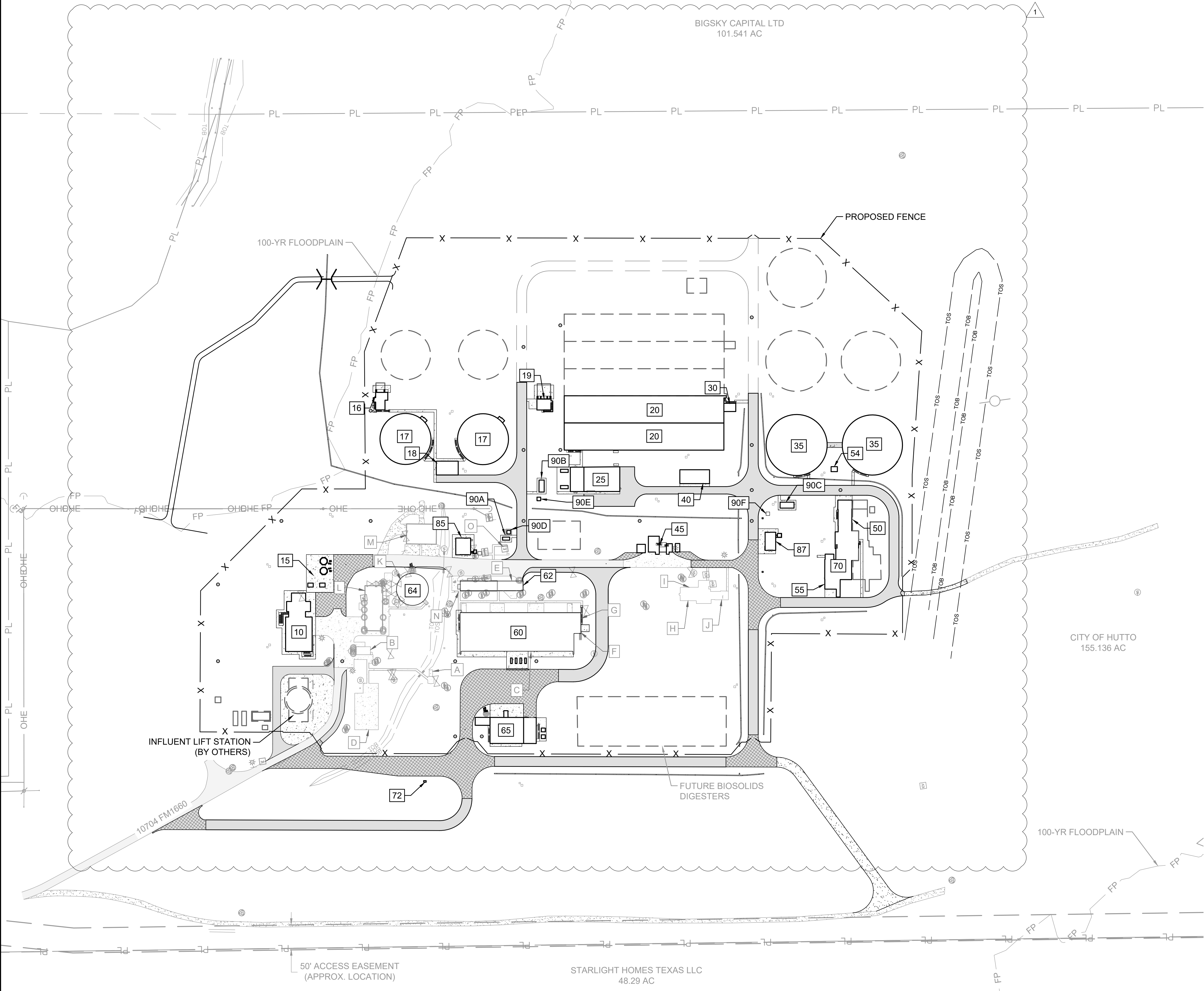
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DRAWING NUMBER  
**05-C101**

SHEET  
NUMBER **025**



Proposed Interim II Phase Site Plan



A EXISTING STRUCTURES

EXISTING FACILITIES	
A	PLANT DRAIN SYSTEM
B	HEADWORKS/SCREENING
C	SEQUENCING BATCH REACTORS
D	BIOSOLIDS ODOR CONTROL
E	SBR BLOWERS
F	POST EQUALIZATION BASIN
G	EFFLUENT PUMP STATION
H	UV TREATMENT SYSTEM
I	POST AERATION BASIN
J	EFFLUENT PARSHALL FLUME
K	AERATED SLUDGE HOLDING TANK
L	BELT FILTER BUILDING
M	MAINTENANCE BUILDING
N	OPERATIONS AND LAB
O	ELECTRIC GENERATOR

PROPOSED STRUCTURES

PROPOSED FACILITIES	
10	HEADWORKS
15	PRIMARY TREATMENT ODOR CONTROL
16	PRIMARY CLARIFIER SPLITTER BOX
17	PRIMARY CLARIFIERS
18	PRIMARY SLUDGE PUMP STATION
19	PROCESS TRAIN SPLITTER BOX
20	PROCESS TRAIN
25	AERATION BLOWERS & ELECTRICAL BLDG
30	MLSS SPLITTER BOX
35	SECONDARY CLARIFIERS
40	RAS/WAS PUMP STATION
45	CHEMICAL FEED
50	TERTIARY FILTERS
54	FLOW METER VAULT
55	UV, POST AERATION, AND EFFLUENT METERING
60	AERATED SLUDGE HOLDING BASINS
62	ASHB BLOWERS
64	AERATED SLUDGE HOLDING TANK
65	BIOSOLIDS HANDLING BUILDING
70	NON-POTABLE WATER STORAGE
72	RECLAIMED WATER STORAGE
85	MAIN ELECTRICAL BUILDING
87	SOUTH ELECTRICAL BUILDING
90A	NORTH ELECTRICAL BLDG. GENERATOR
90B	BLOWER BLDG. GENERATOR
90C	SOUTH ELECTRICAL BLDG. GENERATOR
90D	NORTH ELECTRICAL BLDG. XFMR
90E	BLOWER BLDG. XFMR
90F	SOUTH ELECTRICAL BLDG. XFMR

NOTES:

1. FUTURE ADMINISTRATION BUILDING.



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REGISTRATION NO. F-5713



BY	DESCRIPTION	DATE	REV
SJM	100% RE-ISSUE	7/26/2024	△



CITY OF HUTTO  
10700 FM 1660  
HUTTO, TX 78634

PROPOSED SITE  
PLAN - OVERALL

JOB NO.: 22W07225  
DATE: JULY 2024  
DESIGNED BY: SJM  
DRAWN BY: GRG  
CHECKED BY: SSS

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DRAWING NUMBER

**05-C102**

SHEET  
NUMBER **027**

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Kelly Keel, *Interim Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

October 27, 2023

TO: Persons on the attached mailing list.

RE: City of Hutto  
TPDES Permit No. WQ0011324002

This letter is your notice that the Texas Commission on Environmental Quality (TCEQ) executive director (ED) has acted on the above-named application. According to 30 Texas Administrative Code (TAC) Section 50.135 the ED's action became effective on October 16, 2023, the date the ED signed the permit or other action unless otherwise specified in the permit or other action.

For certain matters, a **motion to overturn**, which is a request that the commission review the ED's action on an application, may be filed with the chief clerk. Whether a motion to overturn is procedurally available for a specific matter is determined by Title 30 of the Texas Administrative Code Chapter 50. According to 30 TAC Section 50.139, an action by the ED is not affected by a motion to overturn filed under this section unless expressly ordered by the commission.

If a motion to overturn is filed, the motion must be received by the chief clerk within 23 days after the date of this letter. An original and 7 copies of a motion must be filed with the chief clerk in person, or by mail to the chief clerk's address on the attached mailing list. On the same day the motion is transmitted to the chief clerk, please provide copies to the applicant, the ED's attorney, and the Public Interest Counsel at the addresses listed on the attached mailing list. If a motion to overturn is not acted on by the commission within 45 days after the date of this letter, then the motion shall be deemed overruled.

You may also request **judicial review** of the ED's action. The procedure and timelines for seeking judicial review of a commission or ED order are governed by Texas Water Code Section 5.351.

Individual members of the public may seek further information by calling the Public Education Program, toll free, at 1-800-687-4040.

Sincerely,

A handwritten signature in black ink that reads "Laurie Gharis". The script is cursive and fluid, with the first name "Laurie" and last name "Gharis" clearly distinguishable.

Laurie Gharis  
Chief Clerk

LG/cb

Enclosure

MAILING LIST  
for  
City of Hutto  
TPDES Permit No. WQ0011324002

FOR THE APPLICANT:

Mr. Matthew Rector, P.E, City Engineer  
City of Hutto  
500 West Live Oak Street  
Hutto, Texas 78634

Ms. Michelle Lacks, P.E.  
Garver  
3755 South Capital of Texas Highway  
Suite 325  
Austin, Texas 78704

PROTESTANTS/INTERESTED PERSONS:

Rosario Flores  
P.O. Box 13231  
Austin, Texas 78711

FOR THE EXECUTIVE DIRECTOR  
via electronic mail:

Ryan Vise, Deputy Director  
Texas Commission on Environmental  
Quality  
External Relations Division  
Public Education Program MC 108  
P.O. Box 13087  
Austin, Texas 78711-3087

Todd Galiga, Senior Attorney  
Texas Commission on Environmental  
Quality  
Environmental Law Division MC 173  
P.O. Box 13087  
Austin, Texas 78711-3087

J. Alfonso Martinez, III, Technical Staff  
Texas Commission on Environmental  
Quality  
Water Quality Division MC 148  
P.O. Box 13087  
Austin, Texas 78711-3087

FOR PUBLIC INTEREST COUNSEL  
via electronic mail:

Garrett T. Arthur, Attorney  
Texas Commission on Environmental  
Quality  
Public Interest Counsel MC 103  
P.O. Box 13087  
Austin, Texas 78711-3087

FOR THE CHIEF CLERK  
via electronic mail:

Laurie Gharis, Chief Clerk  
Texas Commission on Environmental  
Quality  
Office of Chief Clerk MC 105  
P.O. Box 13087  
Austin, Texas 78711-3087



TPDES PERMIT NO.  
WQ0011324002  
*[For TCEQ office use only - EPA I.D.  
No. TX0132926]*

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

This minor amendment supersedes and  
replaces TPDES Permit No.  
WQ0011324002 issued on June 15,  
2020, and is reissued pursuant to 30  
TAC § 305.62 (c)(2).

PERMIT TO DISCHARGE WASTES  
under provisions of  
Section 402 of the Clean Water Act  
and Chapter 26 of the Texas Water Code

City of Hutto

whose mailing address is

500 West Live Oak Street  
Hutto, Texas 78634

is authorized to treat and discharge wastes from the Hutto South Wastewater Treatment  
Facility, SIC Code 4952

located at 10700 Farm-to-Market Road 1660, in Williamson County, Texas 78634

directly to Brushy Creek in Segment No. 1244 of the Brazos 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, **June 15, 2025**.

ISSUED DATE: October 16, 2023

  
\_\_\_\_\_  
For the Commission



INTERIM I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

1. During the period beginning upon the date of issuance and lasting through the completion of expansion to the 6.0 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 million gallons per day (MGD)\*.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (209)	15	25	35	Two/week	Composite
Total Suspended Solids	15 (313)	25	40	60	Two/week	Composite
Ammonia Nitrogen	2 (42)	5	10	15	Two/week	Composite
Total Phosphorus	Report (Report)	N/A	Report	N/A	Two/week	Composite
Hydrogen Peroxide**	Report (N/A)	N/A	Report	N/A	One/week	Grab
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	126	N/A	399	N/A	Daily	Grab

\*See Other Requirement No. 9.

\*\*Tested only when Peracetic Acid (PAA) is used for disinfection.

\*\*\*Design PAA contact times is subject to change by results from a bench-scale or pilot-scale study. Alternative methods to determine the PAA contact must be approved by the executive director.

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. In addition, if PAA is used for disinfection then the effluent shall not exceed a PAA residual of 1.0 mg/l after a detention time of at least 7.5 minutes\*\*\* (based on daily average flow), and shall be monitored five times per week by grab sample. 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 6.0 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 REQUIREMENTSOutfall Number 001

1. During the period beginning upon the completion of expansion to the 6.0 million gallons per day (MGD) facility and lasting through the completion of expansion to the 15.5 MGD facility, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 6.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 13,333 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (500)	15	25	35	Five/week	Composite
Total Suspended Solids	15 (751)	25	40	60	Five/week	Composite
Ammonia Nitrogen	2 (100)	5	10	15	Five/week	Composite
Total Phosphorus	1 (50)	2	4	6	Five/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 five times 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 6.0 mg/l and shall be monitored five times 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 REQUIREMENTSOutfall Number 001

1. During the period beginning upon the completion of expansion to the 15.5 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 15.5 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 34,422 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (1,293)	15	25	35	One/day	Composite
Total Suspended Solids	15 (1,939)	25	40	60	One/day	Composite
Ammonia Nitrogen	2 (259)	5	10	15	One/day	Composite
Total Phosphorus	0.5 (65)	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 6.0 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.

## 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  $n$ th 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 Compliance Monitoring Team of 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 Compliance



Monitoring Team of 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 Compliance Monitoring Team of 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 Compliance Monitoring Team of 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 Compliance Monitoring Team of 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 Compliance Monitoring Team of the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
  - i. One hundred micrograms per liter (100 µg/L);
  - ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
  - iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
  - i. Five hundred micrograms per liter (500 µg/L);
  - ii. One milligram per liter (1 mg/L) for antimony;
  - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
  - iv. The level established by the TCEQ.

#### 10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

#### 11. All POTWs must provide adequate notice to the Executive Director of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;
- b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
- c. For the purpose of this paragraph, adequate notice shall include information on:
  - i. The quality and quantity of effluent introduced into the POTW; and
  - ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

**PERMIT CONDITIONS****1. General**

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
  - i. Violation of any terms or conditions of this permit;
  - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
  - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

**2. Compliance**

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance

with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

### 3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

### 4. Permit Amendment and/or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
  - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or
  - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or
  - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the

regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to TWC Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy

- a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
  - i. the permittee;
  - ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or
  - iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.

- b. This notification must indicate:
  - i. the name of the permittee;
  - ii. the permit number(s);
  - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
  - iv. the date of filing of the petition.

## **OPERATIONAL REQUIREMENTS**

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge or biosolids use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.
3. Domestic wastewater treatment facilities shall comply with the following provisions:
  - a. The permittee shall notify the 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 does authorize Distribution and Marketing of Class A or Class AB Biosolids. This provision does not authorize the permittee to land apply biosolids on property owned, leased or under the direct control of the permittee.**

### SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS LAND APPLICATION

#### A. General Requirements

1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge or biosolids.
2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.
3. The land application of processed or unprocessed chemical toilet waste, grease trap waste, grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes, or any of the wastes listed in this provision combined with biosolids, WTP residuals or domestic septage is prohibited unless the grease trap waste is added at a fats, oil and grease (FOG) receiving facility as part of an anaerobic digestion process.

#### B. Testing Requirements

1. Sewage sludge or biosolids shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 11) 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. This annual report shall be submitted to the TCEQ Regional Office (MC Region 11) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30<sup>th</sup> of each year. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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> <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

\* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B biosolids pathogen requirements.

- a. For sewage sludge to be classified as Class A biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge must be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC § 312.82(a)(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:

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%; or

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information; or

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

- c. Sewage sludge that meets the requirements of Class AB biosolids may be classified a Class A biosolids if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.
- d. Three alternatives are available to demonstrate compliance with Class B biosolids

criteria.

Alternative 1

- i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.
- ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

- i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;
- iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and
- v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

Alternative 3 - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

- i. Prior to use or disposal, all the sewage sludge must have been generated from a

single location, except as provided in paragraph v. below;

- ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;
- iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and
- v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition to the Alternatives 1 – 3, the following site restrictions must be met if Class B biosolids are land applied:

- i. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.
- ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remain on the land surface for 4 months or longer prior to incorporation into the soil.
- iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than 4 months prior to incorporation into the soil.
- iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.
- v. Domestic livestock shall not be allowed to graze on the land for 30 days after application of biosolids.
- vi. Turf grown on land where biosolids are applied shall not be harvested for 1 year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn.
- vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of biosolids.

viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.

ix. Land application of biosolids shall be in accordance with the buffer zone requirements found in 30 TAC § 312.44.

#### 4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.



Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 -

- i. Biosolids shall be injected below the surface of the land.
- ii. No significant amount of the biosolids shall be present on the land surface within one hour after the biosolids are injected.
- iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the biosolids shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10 -

- i. Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.
- ii. When biosolids that are incorporated into the soil is Class A or Class AB with respect to pathogens, the biosolids shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

### C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test	- annually
PCBs	- annually

All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

<u>Amount of biosolids (*) metric tons per 365-day period</u>	<u>Monitoring Frequency</u>
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter
1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

(\*) *The amount of bulk biosolids applied to the land (dry wt. basis).*

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge or biosolids for disposal at a landfill) 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

<u>Pollutant</u>	Cumulative Pollutant Loading Rate (pounds per acre)*
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

<u>Pollutant</u>	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report Only
Nickel	420
Selenium	36
Zinc	2800

\*Dry weight basis

**B. Pathogen Control**

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B biosolids pathogen reduction requirements as defined above in Section I.B.3.

**C. Management Practices**

1. Bulk biosolids shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.
2. Bulk biosolids not meeting Class A requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.
3. Bulk biosolids shall be applied at or below the agronomic rate of the cover crop.
4. An information sheet shall be provided to the person who receives bulk Class A or AB biosolids sold or given away. The information sheet shall contain the following information:
  - a. The name and address of the person who prepared the Class A or AB biosolids that are sold or given away in a bag or other container for application to the land.
  - b. A statement that application of the biosolids to the land is prohibited except in accordance with the instruction on the label or information sheet.
  - c. The annual whole sludge application rate for the biosolids application rate for the biosolids that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

**D. Notification Requirements**

1. If bulk biosolids are applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk biosolids are proposed to be applied. The notice shall include:
  - a. The location, by street address, and specific latitude and longitude, of each land application site.
  - b. The approximate time period bulk biosolids will be applied to the site.
  - c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk biosolids.
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 five years. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.
2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B biosolids, if applicable).
3. A description of how the vector attraction reduction requirements are met.
4. A description of how the management practices listed above in Section II.C are being met.
5. The following certification statement:

“I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 312.83(b) have been met for each site on which bulk biosolids are applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment.”

6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk biosolids shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:
  - a. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee’s specific sludge treatment activities.
  - b. The location, by street address, and specific latitude and longitude, of each site on which biosolids are applied.
  - c. The number of acres in each site on which bulk biosolids are applied.
  - d. The date and time biosolids are applied to each site.
  - e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.
  - f. The total amount of biosolids applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

## **F. Reporting Requirements**

The permittee shall report annually to the TCEQ Regional Office (MC Region 11) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30<sup>th</sup> of each year the following information. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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 11) 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 11) and the Compliance Monitoring Team (MC 224) of the Enforcement Division 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 report annually to the TCEQ Regional Office (MC Region 11) and Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30<sup>th</sup> of each year the following information. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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 report the following information annually to the TCEQ Regional Office (MC Region 11) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30<sup>th</sup> of each year. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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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## **SECTION V. REQUIREMENTS FOR MARKETING AND/OR DISTRIBUTING BIOSOLIDS AND BIOSOLIDS DERIVED MATERIALS.**

### **A. General Requirements**

All biosolids, biosolids derived materials or materials sold or given away in bulk, bag or a container for application to the land shall meet the metal concentrations in Section II.A. Table 3, the pathogen requirements in 30 TAC §312.82, and the vector attraction reduction requirements in 30 TAC §312.83(b)(1) - §312.83(b)(8).

The product of the concentration of each pollutant in biosolids and the annual application rate for the biosolids shall not cause the annual metal loading rate for the metal in Table 4 below to be exceeded. The procedure used to determine the annual whole application rate is presented in §312.49 title (relating to Appendix A - Procedure to Determine the Annual Whole Application Rate for Biosolids).

Table 4 - ANNUAL METAL LOADING RATES

<u>Pollutant</u>	<u>Annual Metal Loading Rate **</u> <u>(pounds per acre) *</u>
Arsenic	1.8
Cadmium	1.7
Chromium	134.0
Copper	67.0
Lead	13.0
Mercury	0.76
Molybdenum	Report Only
Nickel	18.7
Selenium	4.5
Zinc	125.0

\* Dry weight basis

\*\* Per 365-day period

### **B. Marketing and Distribution Management Practices**

1. Biosolids may be stockpiled and stored on site under semi-dry conditions for a period not to exceed 24 months.
2. The whole application rate shall not exceed the agronomic rate for any site.
3. The biosolids processing site location shall be selected and operated in a manner to prevent public health nuisances. Where nuisance conditions exist, the operator shall take necessary action to abate such nuisances.
4. Either a label shall be affixed to the bag or similar enclosure in which the biosolids are sold or given away for application to the land or an information sheet shall be provided to the person who receives the biosolids sold or given away in a similar enclosure for application to the land. The label or information sheet shall contain the following information:
  - a. the name and address of the person who prepared the biosolids for sale or give away in a bag or similar enclosure for application to the land;
  - b. a statement that prohibits the application of the biosolids to the land except in accordance with the instructions on the label or information sheet;

- c. the annual whole application rate for the biosolids that does not cause the annual metal loading rates in Table 4 to be exceeded.
- 5. If composting, the Compost Processing Pad Area shall be protected from storm water run-on and runoff. Storm water from the pad shall be routed through the headworks of the Wastewater Treatment Facility. The Compost Processing Pad shall be constructed of concrete or Executive Director approved material meeting the following requirements:
  - a. More than 30% passing a No. 200 mesh sieve
  - b. Liquid limit greater than 30%
  - c. Plasticity index greater than 15
  - d. A minimum thickness of 2 feet
  - e. Permeability equal to or less than  $1 \times 10^{-7}$  cm/sec
  - f. Soil compaction will be 95% standard proctor at optimum moisture content

The permittee shall furnish certification by a Texas Licensed Professional Engineer that the completed lining meets the appropriate criteria above prior to utilization of the facilities. The certification shall be sent to the TCEQ Regional Office (MC Region 11) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division.

- 6. This permit does not authorize the composting of grease or grease trap waste. Any such authorization shall be in accordance with Commission regulations in 30 TAC Chapter 332.
- 7. The following is a list of site management restrictions for Class A and Class AB bulk biosolids agricultural land, forest, or a reclamation sites:
  - a. A bulk biosolids agricultural land, forest, or a reclamation site may not be applied during rainstorms or during periods in which surface soils are water-saturated, and when pooling of water is evident on the land application site.
  - b. The operator shall manage a bulk biosolids agricultural land, forest, or a reclamation site according to the Adverse Weather and Alternative Plan. This plan details procedures to address times when the bulk biosolids cannot be applied to the land application site due to adverse weather or other conditions such as wind, precipitation, field preparation delays, and access road limitations.
  - c. A bulk biosolids agricultural land, forest, or a reclamation site location must be selected and operated in a manner to prevent public health nuisances.
  - d. An operator of a bulk biosolids agricultural land, forest, or a reclamation site may not accept bulk biosolids, unless the biosolids are transported to the land application unit in a covered container with the covering firmly secured at the front and back.
  - e. If the bulk biosolids are Class AB as per the pathogen reduction alternatives in 30 TAC §312.82(a)(2), then the management practices under 30 TAC §312.44 shall be met in addition to the section V.B.7 (a-d) of this permit.

**C. Monitoring Requirements**

Toxicity Characteristic Leaching Procedure (TCLP) Test - Once/Year

PCBs - Once/Year

All metal constituents, pathogen density requirements and vector attraction reduction requirements shall be monitored at the appropriate frequency pursuant to 30 TAC §312.46(a)(1).

**D. Notification Requirements**

The permittee shall inform TCEQ through a letter whenever biosolids are given to a new bulk agricultural land, forest, or a reclamation site recipient directly by the generator. The notification letter shall include:

1. The recipient's name, address, phone number, the longitude and latitude of the site, and the number of acres the intended to be used.
2. If Class AB biosolids, a site map showing the buffer zone areas required under §312.44(c)(2)(D) and (E)
3. Authorization number and biosolids source name.
4. Must be signed and dated by the responsible person.
5. Complete name and title, telephone number and the address of the person signing the letter.

**E. Recordkeeping Requirements**

The person who prepares bulk biosolids or biosolids material in 30 TAC §312.41(b)(1) or in 30 TAC §312.41(e) shall develop the following information and shall retain the information on-site for five years.

1. The concentration (mg/kg) in biosolids of each pollutant listed in Section II. A. (30 TAC §312.43(b)(3) Table 3).
2. A description of how the pathogen reduction requirements are met.
3. A description of how the vector attraction reduction requirements are met.
4. The annual whole application rate for biosolids that does not cause the annual pollutant loading rates in Table 4 to be exceeded.
5. The following certification statement: "I certify, under penalty of law, that the pathogen requirements in 30 TAC §312.82 and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in §312.83(b)(1)-(8)) have been met. 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 pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

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 report annually to the TCEQ Regional Office (MC Region 11) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30<sup>th</sup> of each year the following information:

1. Results of tests performed for pollutants found in 30 TAC §312.43(b)(3) Table 3.
2. The frequency of monitoring listed in Section I.C. which applies to the permittee.
3. Toxicity Characteristic Leaching Procedure (TCLP) results.
4. PCB concentration in sludge in mg/kg.
5. Documentation of the level of pathogen reduction achieved.
6. As listed in Section I.B.3.(a), describe how the pathogen reduction requirements were met.
7. Vector attraction reduction alternative used as listed in Section I.B.4.
8. Annual production in dry tons/year.
9. Amount land applied in dry tons/year.
10. The following certification statement: "I certify, under penalty of law, that the pathogen requirements in 30 TAC §312.82 and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in §312.83(b)(1)-(8)) have been met. 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 pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment." The certification statement shall be attached to the annual reporting form.

The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

## 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 (Interim I and II phases) and A (Final phase) facility must be operated by a chief operator or an operator holding a Class B (Interim I and II phases) and A (Final phase) 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. Chronic toxic criteria apply at the edge of the mixing zone. The mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge.
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. **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 II and Final phases wastewater treatment facility, 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 2b and 2c of this permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

8. The permittee shall notify the TCEQ Regional Office (MC Region 11) and the Applications Review and Processing Team (MC 148) of the Water Quality Division, in writing at least forty-five days prior to the completion of the new Interim II and Final phase wastewater facility on Notification of Completion Form 20007.
9. This facility is designed for batch discharge. Maximum 2-hour peak flow limits are not included in the permit. The permittee shall operate the disinfection facilities to insure that the effluent complies with permit limits for bacteria and Peracetic Acid (PAA) residual. This provision does not limit or restrict future inclusion of peak flow limits.
10. TCEQ can review the PAA concentration at any time based on the potential impact of the PAA residual in the receiving body.

**CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS**

1. The following pollutants may not be introduced into the treatment facility:
  - a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, waste streams with a closed-cup flash point of less than 140° Fahrenheit (60° Celsius) using the test methods specified in 40 CFR § 261.21;
  - b. Pollutants which will cause corrosive structural damage to the POTW, but in no case shall there be discharges with a pH lower than 5.0 standard units, unless the works are specifically designed to accommodate such discharges;
  - c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;
  - d. Any pollutant, including oxygen-demanding pollutants (e.g., biochemical oxygen demand), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;
  - e. Heat in amounts which will inhibit biological activity in the POTW, resulting in Interference, but in no case shall there be heat in such quantities that the temperature at the POTW treatment plant exceeds 104° Fahrenheit (40° Celsius) unless the Executive Director, upon request of the POTW, approves alternate temperature limits;
  - f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;
  - g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and
  - h. Any trucked or hauled pollutants except at discharge points designated by the POTW.
2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under 40 CFR Part 403 [*rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798*].
3. The permittee shall provide adequate notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days subsequent to the permittee's knowledge of either of the following:
  - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and
  - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Any notice shall include information on the quality and quantity of effluent to be introduced into the treatment works and any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

Revised July 2007

**BIOMONITORING REQUIREMENTS****CHRONIC BIOMONITORING REQUIREMENTS: FRESHWATER**

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. **Scope, Frequency, and Methodology**

- a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival, reproduction, or growth of the test organisms.
- b. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this part of this permit and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," fourth edition (EPA-821-R-02-013) or its most recent update:
  - 1) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*) (Method 1002.0). This test should be terminated when 60% of the surviving adults in the control produce three broods or at the end of eight days, whichever occurs first. This test shall be conducted once per quarter.
  - 2) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*) (Method 1000.0). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 19%, 26%, 35%, 46%, and 61% effluent. The critical dilution, defined as 46% 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;
  - 4) a control coefficient of variation percent (CV%) of 40 or less in between replicates for the young of surviving females in the water flea test; and the growth and survival endpoints in the fathead minnow test;
  - 5) a critical dilution CV% of 40 or less for the young of surviving females in the water flea test; and the growth and survival endpoints for the fathead minnow test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test;
  - 6) a percent minimum significant difference of 47 or less for water flea reproduction; and
  - 7) a percent minimum significant difference of 30 or less for fathead minnow growth.
- b. Statistical Interpretation
  - 1) For the water flea survival test, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be the Fisher's exact test as described in the manual referenced in in Part 1.b.
  - 2) For the water flea reproduction test and the fathead minnow larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the manual referenced in Part 1.b.

- 3) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.
- 4) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 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.
- 5) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution when compared to the survival, reproduction, or growth of the test organism in the control.
- 6) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 3.
- 7) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Item 3 will be used when making a determination of test acceptability.
- 8) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

- 1) Dilution water used in the toxicity tests must be the receiving water collected 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.
  - 10) For the fathead minnow, Parameter TWP6C, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
  - 11) For the fathead minnow, Parameter TPP6C, report the NOEC for growth.
  - 12) For the fathead minnow, Parameter TYP6C, report the LOEC for growth.
- d. Enter the following codes for 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. Persistent Toxicity

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. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
  - 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;
  - 2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall

- conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
- 3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
  - 4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
  - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
  - 3) any data and substantiating documentation which identifies the pollutant(s) and source of effluent toxicity;
  - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
  - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and
  - 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- 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

Dates and Times      Date      Time      Date      Time  
 Composites      No. 1 FROM: \_\_\_\_\_ TO: \_\_\_\_\_  
 Collected      No. 2 FROM: \_\_\_\_\_ TO: \_\_\_\_\_  
                     No. 3 FROM: \_\_\_\_\_ TO: \_\_\_\_\_

Test initiated: \_\_\_\_\_ am/pm \_\_\_\_\_ date

Dilution water used: \_\_\_\_\_ Receiving water \_\_\_\_\_ Synthetic Dilution water

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

REP	Percent effluent					
	0%	19%	26%	35%	46%	61%
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
Survival Mean						
Total Mean						
CV%*						
PMSD						

\*Coefficient of Variation = standard deviation x 100/mean (calculation based on young of the surviving adults)

Designate males (M), and dead females (D), along with number of neonates (x) released prior to death.

TABLE 1 (SHEET 2 OF 4)

## CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean number of young produced per adult significantly less than the number of young per adult in the control for the % effluent corresponding to significant nonlethal effects?

CRITICAL DILUTION (46%): \_\_\_\_\_ YES \_\_\_\_\_ NO

## PERCENT SURVIVAL

Time of Reading	Percent effluent					
	0%	19%	26%	35%	46%	61%
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 (46%): \_\_\_\_\_ 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 4 OF 4)  
BIOMONITORING REPORTING  
FATHEAD MINNOW GROWTH AND SURVIVAL TEST  
FATHEAD MINNOW SURVIVAL DATA

Effluent Concentration	Percent Survival in replicate chambers					Mean percent survival			CV%*
	A	B	C	D	E	24h	48h	7 day	
0%									
19%									
26%									
35%									
46%									
61%									

\* 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 (46%): \_\_\_\_\_ YES \_\_\_\_\_ NO

3. Enter percent effluent corresponding to each NOEC\LOEC below:

a.) NOEC survival = \_\_\_\_\_ % effluent

b.) LOEC survival = \_\_\_\_\_ % effluent

c.) NOEC growth = \_\_\_\_\_ % effluent

d.) LOEC growth = \_\_\_\_\_ % effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency, and Methodology

- a. The permittee shall test the effluent for lethality in accordance with the provisions in this section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.
- b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:
  - 1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.
  - 2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

A valid test result must be submitted for each reporting period. The permittee must report, and then repeat, an invalid test during the same reporting period. The repeat test shall include the control and the 100% effluent dilution and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. 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 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.
- 5) The effluent sample shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.
  - 1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
  - 2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, and October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
- c. Enter the following codes for the appropriate parameters for valid tests only:
  - 1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
  - 2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean

survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

d. Enter the following codes for retests only:

- 1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
- 2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

4. Persistent Mortality

The requirements of this part apply when a toxicity test demonstrates significant lethality, which is defined as a mean mortality of 50% or greater of organisms exposed to the 100% effluent concentration for 24 hours.

- a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.
- b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
  - 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity

characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

- 2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
  - 3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
  - 4) Project Organization - The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
  - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
  - 3) any data and substantiating documentation that identifies the pollutant

- and source of effluent toxicity;
  - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
  - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and
  - 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- 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	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC<sub>50</sub> below:

24 hour LC<sub>50</sub> = \_\_\_\_\_% effluent

TABLE 2 (SHEET 2 OF 2)  
FATHEAD MINNOW SURVIVAL

## GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

## PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC<sub>50</sub> below:

24 hour LC<sub>50</sub> = \_\_\_\_\_% effluent

Jon Niermann, *Chairman*  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 29, 2024

Robert E. Boysen, P.E.  
Garver LLC  
3755 S Capital of Texas Hwy., Suite 325  
Austin, TX 78704

Re: City of Hutto  
Hutto South WWTP Expansion to 6.0 MGD  
Permit No. WQ0011324-002  
WWPR Log No. 0124/091  
CN600336861, RN106037260  
Williamson County

Dear Mr. Boysen:

The Texas Commission on Environmental Quality (TCEQ) received the project summary transmittal letter, dated January 12, 2024.

The TCEQ rules regulating the design, installation, and testing of domestic wastewater treatment projects are found in 30 TAC Chapter 217, titled Design Criteria for Wastewater Systems.

The City of Hutto is submitting plans and specifications for TCEQ approval on the construction of South Wastewater Treatment Plant (WWTP) improvements. The engineer indicates that the expansion to 6.0 MGD will transition away from the Sequencing Batch Reactor (SBR) system to a continuous flow activated sludge process with anaerobic, anoxic, aerobic (A2O) configuration. The WWTP has been designed to meet the current permitted Interim II effluent limits and monitoring requirements that allow an annual average flow of 6.0 MGD (2-hr peak flow of 19.2 MGD) and effluent limits of 10 mg/L of CBOD<sub>5</sub>, 15 mg/L of TSS, 2 mg/L of Ammonia Nitrogen, 1.0 mg/L of total phosphorus (TP), and 126 CFU or MPN per 100 mL of *E. coli*. The existing WWTP is currently operating in the Interim phase I of the permit that allows an annual average flow of effluent of 2.5 MGD. The design influent flow and organic parameter concentrations are 6.0 MGD (2-hr peak flow of 19.2 MGD), 264 mg/L of BOD, 242 mg/L of TSS, 41 mg/L of Ammonia Nitrogen, and 10.3 mg/L of TP.

The proposed WWTP expansion project includes the following facilities:

- Headworks:
  - Two 12.5 MGD fine screens and one 30 MGD vortex grit chamber, both with bypass channels



- Influent Odor Control:
  - Two 10,350 scfm bio trickling filters
- Primary Clarifiers:
  - Two 100' diameter double-weir primary clarifiers
- Process Trains (Advanced Nutrient Removal, A2O Process) consisting of:
  - Two 300' x 50' x 18' side water depth (SWD) trains, total volume of 540,000 ft<sup>3</sup> or 4.0 MG, including:
    - One anaerobic zone per train, with a volume of 30,000 ft<sup>3</sup> for each zone and a total volume of 60,000 ft<sup>3</sup> for both treatment trains
    - One anoxic zone per train, with a volume of 60,000 ft<sup>3</sup> for each zone and a total volume of 120,000 ft<sup>3</sup> for both treatment trains
    - One aerobic zone per train, with a volume of 180,000 ft<sup>3</sup> for each zone and a total volume of 360,000 ft<sup>3</sup> for both treatment trains
- Aeration Blowers:
  - Three 5,000 scfm blowers
- Secondary Clarifiers:
  - Two 120' diameter secondary clarifiers
- RAS/WAS Pump Station:
  - Three 4.5 MGD RAS pumps
  - Two 400 gpm WAS pumps
- Chemical Feed:
  - Two 36 gph alum dual skids
  - One 8,000 gal alum tank
  - One 3 gpm NaClO dual skid
  - One 200 gal NaClO tank
- Tertiary Filters:
  - Two 20 MGD filters
- UV, Post-Aeration, Effluent Metering:
  - Two 12 MGD UV channels
  - Two 600 scfm blowers
  - 30-inch Parshall flume
- Existing Aerated Sludge Holding Basins (ASHBs):
  - Volume of 2.27 MG or 304,000 ft<sup>3</sup>
  - Four 3,000 scfm blowers
  - One surface mixer per basin
- Existing Rotary Drum Thickener (RDT) and Aerated Sludge Holding Tank (ASHT):
  - 400 gpm RDT
  - 270,000 gal or 36,000 ft<sup>3</sup> ASHT
- Biosolids Handling:
  - Two 450 gpm centrifuges
  - Three 450 gpm feed pumps
  - Two polymer activation units
  - 4,000 gal polymer storage
  - One existing 1,600 lb/h, 2-meter belt filter press
- Non-Potable Water:
  - Three 570 gpm vertical turbine pumps post-disinfection

Robert E. Boysen, P.E.

Page 3

June 29, 2024

TCEQ reviewed the submitted project documentation and determined, based on the information provided, that the project meets at least the minimum requirements set forth in 30 TAC Chapter 217, Design Criteria for Wastewater Systems. Based on this, your project is conditionally approved for construction under the provision that all work will be completed in accordance with the requirements in 30 TAC Chapter 217.

You must keep records on certain materials for the life of the project, and be prepared to provide them to TCEQ upon request. These materials include an engineering report, test results, a summary transmittal letter, and the final version of the project plans and specifications. These materials shall be prepared and sealed by a Professional Engineer licensed in the State of Texas and must show substantial compliance with 30 TAC Chapter 217. All plans and specifications must conform to any wastewater discharge requirements authorized in a permit issued by TCEQ. Specific items to be addressed in the engineering report must include all constants, graphs, equations, and calculations needed to show substantial compliance with 30 TAC Chapter 217.

Within 60 days of construction completion, an appointed engineer shall notify both the TCEQ Wastewater Permitting Section and the appropriate TCEQ Regional Office of the date of completion. The engineer shall also provide written certification that all construction, materials, and equipment were substantially in accordance with the approved project and the rules of TCEQ, as well as provide any change orders filed with TCEQ throughout the duration of project construction. All notifications, certifications, and change orders must include the signed and dated seal of a Professional Engineer licensed in the State of Texas.

Please note 30 TAC §217.7(a) states, "Approval given by the executive director or other authorized review authority does not relieve an owner of any liability or responsibility with respect to designing, constructing, or operating a collection system or treatment facility in accordance with applicable commission rules and the associated wastewater permit".

If you have any questions, or if we can be of any further assistance, please call me at (512) 239-4924.

Sincerely,



Baltazar Lucero-Ramirez, P.E.  
Wastewater Permits Section (MC 148)  
Water Quality Division  
Texas Commission on Environmental Quality

BLR/ec

cc: TCEQ, Region 11 Office

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

January 11, 2024

Mr. Jeffrey Meadows  
Garver  
3755 South Capital of Texas Highway, Suite 325  
Austin, Texas 78704

Re: City of Hutto, Reuse Authorization No. R11324-002, Williamson County  
(CN600336861; RN106037260)

Dear Mr. Meadows:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the application for the above referenced authorization. The authorization allows the reuse of Type I and Type II wastewater treated effluent from the Hutto South Wastewater Treatment Facility.

Notify this office and the appropriate regional office at least 30 days before reclaimed water is distributed. If the plans and specifications for the project have been approved the authorization will be activated, and the facility will be issued monthly effluent report (MER) forms for reporting the quality and quantity of reclaimed water used. Please see Requirement V(c) on page 8 of the attached authorization.

Thank you for your cooperation during this review process. If you have any questions please contact Dr. Baltazar Lucero-Ramirez, P.E., of my staff at [baltazar.lucero-ramirez@tceq.texas.gov](mailto:baltazar.lucero-ramirez@tceq.texas.gov) or (512) 239-4924.

Sincerely,

A handwritten signature in black ink that reads "Erika Crespo".

Erika Crespo  
Assistant Deputy Director  
Water Quality Division (MC-148)

EC/BLR/sh

# AUTHORIZATION FOR RECLAIMED WATER



Authorization No. R11324-002

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Producer: City of Hutto  
500 West Live Oak Street  
Hutto, Texas 78634

Provider: City of Hutto  
500 West Live Oak Street  
Hutto, Texas 78634

User: Any user within the service area authorized by the provider

Location: The wastewater treatment facility is located at 10700 Farm-to-Market Road 1660 in Williamson County, Texas 78634.

Authorization: Type I and Type II reclaimed water from the Hutto South Wastewater Treatment Facility (TPDES Permit No. WQ0011324-002) to be used for residential irrigation including landscape irrigation and irrigation at individual homes; urban uses including irrigation of public parks, golf courses with unrestricted public access, school yards, or athletic fields; use of reclaimed water for fire protection, either in internal sprinkler systems or external fire hydrants; irrigation of food crops; irrigation of pastures for milking animals; maintenance of impoundments or natural water bodies where recreational activities, such as wading or fishing, are anticipated even though the water body was not specifically designed for such use; toilet or urinal flush water, and other similar activities where the potential for unintentional human exposure may occur. The service area is as shown in Section XI, Service Area Map.

This authorization contains the conditions that apply for the use of reclaimed water. The approval of reclaimed water use under Chapter 210 does not affect any existing water rights. If applicable, a reclaimed water use authorization in no way affects the need of a producer, provider, or user to obtain a separate water right authorization from the commission. This authorization does not allow irrigation of any area authorized for irrigation under a Texas Land Application Permit.

Issue Date: January 10, 2024

A handwritten signature in black ink, appearing to read "K Keel", is written over a horizontal line.

Kelly Keel, Executive Director

## **I. General Requirements**

- A. No producer or provider may transfer reclaimed water to a user without first notifying the commission.
- B. Reuse of untreated wastewater is prohibited.
- C. Food crops that may be consumed raw by humans must not be spray irrigated. Food crops including orchard crops that will be substantially processed prior to human consumption may be spray irrigated. Other types of irrigation that avoid contact of reclaimed water with edible portions of food crops are acceptable.
- D. There must be no nuisance conditions resulting from the distribution, the use, or storage of reclaimed water.
- E. Reclaimed water must not be used in a way that degrades groundwater quality to a degree adversely affecting its actual or potential uses.
- F. Reclaimed water stored in ponds must be prevented from discharging into waters in the state, except for discharges directly resulting from rainfall events or in accordance with a permit issued by the commission. All other discharges are unauthorized.
- G. If an overflow of a holding pond occurs causing discharge into or adjacent to water in the state, the user or provider, as appropriate, shall report the noncompliance. A written submission of pertinent information must be provided to the TCEQ Region 11 office in Austin and to the TCEQ Enforcement Division (MC-149) in Austin, within five (5) working days after becoming aware of the overflow. The submission must contain:
  - 1. a description of the noncompliance and its cause;
  - 2. the potential danger to human health or safety, or the environment;
  - 3. the period of noncompliance, including exact dates and times;
  - 4. if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
  - 5. steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- H. Unless otherwise provided in this authorization, there must be no off-site discharge, either airborne or surface runoff of reclaimed water from the user's property except to a wastewater treatment collection system or wastewater treatment facility unless the reclaimed water user applies for and obtains a permit from the commission that authorizes discharge of the water.
- I. All reclaimed water piping must be separated from potable water piping when trenched by a distance of at least nine feet for Type II effluent and four feet For Type I. All buried pipe must be manufactured in purple, painted purple, taped with purple metallic tape or bagged in purple. All exposed piping, hose bibs and faucets must be painted purple, designed to prevent connection to a standard water hose, and stenciled with a warning reading "NON-POTABLE WATER."

- J. The design of any new distribution system that will convey reclaimed water to a user requires the approval of the executive director. Materials must be submitted to the executive director in accordance with the Texas Engineering Practice Act (Article 3271a, Vernon's Annotated Texas Statutes). The plans and specifications for any new distribution system constructed pursuant to this authorization must be approved by the executive director. Failure to secure approval before commencing construction or making a transfer of reclaimed water is a violation of this authorization. Each day of a transfer is a separate violation until approval has been secured.
- K. Nothing in this authorization modifies any requirements in 30 TAC Chapter 290, Public Drinking Water.
- L. A major change from a prior notification for use of reclaimed water must be approved by the executive director before it can be implemented. A major change includes:
  - 1. a change in the boundary of the approved service area, not including the conversion of individual lots within a subdivision to reclaimed water use;
  - 2. the addition of a new provider;
  - 3. a major change in the intended use, such as conversion from irrigation of a golf course to residential irrigation; or
  - 4. a change from either Type I or Type II use to the other.
- M. The reclaimed water producer, provider, and user shall maintain current operation and maintenance plans on the sites over which they have operational control. The operation and maintenance plan must contain the following, as a minimum:
  - 1. a copy of the signed contract between the user and provider and a copy of the signed contract between the provider and the producer, as applicable;
  - 2. a labeling and separation plan for the prevention of cross connections between reclaimed water distribution lines and potable water lines;
  - 3. the measures that will be implemented to prevent unauthorized access to reclaimed water facilities (e.g., secured valves);
  - 4. procedures for monitoring reclaimed water;
  - 5. a plan for how reclaimed water use will be scheduled to minimize the risk of inadvertent human exposure;
  - 6. schedules for routine maintenance;
  - 7. a plan for worker training and safety; and
  - 8. contingency plan for system failure or upsets.
- N. One of the following requirements must be met by the user or provider, for any area where reclaimed water is stored or where there are hose bibs or faucets:
  - 1. Signs having a minimum size of eight inches by eight inches must be posted at all storage areas and on all hose bibs and faucets reading, in both English and Spanish, "Reclaimed Water, Do Not Drink" or similar warning.
  - 2. The area must be secured to prevent access by the public.

- O. Where a reclaimed water line parallels a sewer line, the reclaimed water line must be constructed in accordance with subsection (p) or (q) of this section. The horizontal separation distance must be three feet (outside to outside) with the reclaimed water line at the level of or above the sewer line. Reclaimed water lines that parallel sewer lines may be placed in the same benched trench. Where a reclaimed water line crosses a sewer line, the requirement of 30 TAC §290.44(e)(4)(B), Water Line Installation—crossing lines, must be followed with the reclaimed water line substituted for the water line.
- P. Reclaimed water pipes must meet the following requirements:
1. Lines that transport reclaimed water under pressure must be sized according to acceptable engineering practices for the needs of the reclaimed water users.
  2. Reclaimed water force mains must have an expected life of at least as long as that of the associated lift station and must be suitable for the reclaimed water being pumped and operating pressure to which it will be subjected.
  3. Pipes must be identified in the technical specifications with appropriate American Society for Testing and Materials, American National Standard Institute, or American Water Works Association standard numbers for both quality control (dimensions, tolerance, and installation such as bedding or backfill).
  4. Pipes and fittings must have a minimum working pressure rating of 150 pounds per square inch.
  5. Final plans and specifications must describe required pressure testing for all installed reclaimed water force mains.
  6. Minimum test pressure must be 1.5 times the maximum design pressure. Allowable leakage rates must be determined as described in 30 TAC §217.97, Pressure Sewer Systems.
  7. Gravity flow reclaimed water lines must meet the requirements of 30 TAC Chapter 217, Subchapter C, Conventional Collection Systems. The provider shall prevent high velocity scouring and maintain adequate fluid velocity to prevent the deposition of solids in the lines.
- Q. All exposed piping and piping within a building must be either purple pipe or painted purple. All exposed piping should be stenciled in white with a warning reading "NON-POTABLE WATER. All exposed or buried reclaimed water piping constructed at a wastewater treatment facility is exempt from the color-coding requirement of this section.
- R. When applicable, in accordance with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems, the design of the distribution systems that will convey reclaimed water to a user must be submitted to the executive director and must receive an approval before the distribution system may be constructed. The design of the distribution systems must meet the criteria of 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. When a municipality is the plan review authority for certain sewer systems that transport primarily domestic waste, in lieu of the commission, design submittal will not be subject to submittal to the commission and instead must be approved by the municipality.

- S. All ground level and elevated storage tanks must be designed, installed, and constructed in accordance with current AWWA standards with reference to materials to be used and construction practices to be followed, except for health-based standards strictly related to potable water storage and contact practices, where appropriately less restrictive standards may be applied.

## **II. Storage Requirements for Reclaimed Water**

- A. Storage facilities for retaining reclaimed water prior to use must not be located within a floodway.
- B. Storage ponds must be hydraulically separated from waters in the state.
- C. Any holding pond designed to contain Type I effluent or Type II effluent that is located within a DRASTIC Pollution Potential Index Zone of less than 110, shall conform to the following requirements:
  - 1. Ponds with an earthen liner must meet the following requirements
    - a. A permeability of less than  $1 \times 10^{-4}$  cm/sec;
    - b. The ponds must be designed and constructed to prevent groundwater contamination;
    - c. Soils used for pond lining must be free from foreign material such as paper, brush, trees, and large rocks; and
    - d. All soil liners must be of compacted material, at least 24 inches thick, compacted in lifts no greater than 6 inches thick and compacted to 95% of Standard Proctor Density;
    - e. Soil liners must meet the following particle size gradation and Atterberg limits:
      - i. 30% or more passing a number 200 mesh sieve; and
      - ii. a liquid limit of 30% or greater; and
      - iii. a plasticity index of 15 or greater;
    - f. In situ liners at least 24 inches thick meeting a permeability less than or equal to  $1 \times 10^{-4}$  cm/sec are acceptable alternatives; In-situ clay soils meeting the soils liner requirements must be excavated and re-compacted a minimum of 6 inches below planned grade to assure a uniformly compacted finished surface.



- D. Any holding pond containing reclaimed water located within the recharge zone of the Edward Aquifer or designed to contain Type II effluent and is located within a DRASTIC Pollution Potential Index Zone of 110 or greater, shall conform to the following requirements:
1. Ponds with an earthen liner must meet the following requirements
    - a. A permeability of less than  $1 \times 10^{-7}$  cm/sec;
    - b. The ponds must be designed and constructed to prevent groundwater contamination;
    - c. Soils used for pond lining must be free from foreign material such as paper, brush, trees, and large rocks; and
    - d. All soil liners must be of compacted material, at least 24 inches thick, compacted in lifts no greater than 6 inches thick and compacted to 95% of Standard Proctor Density;
    - e. Soil liners must meet the following particle size gradation and Atterberg limits:
      - i. 30% or more passing a number 200 mesh sieve; and
      - ii. a liquid limit of 30% or greater; and
      - iii. a plasticity index of 15 or greater;
    - f. In situ liners at least 24 inches thick meeting a permeability less than or equal to  $1 \times 10^{-7}$  cm/sec are acceptable alternatives; In-situ clay soils meeting the soils liner requirements must be excavated and re-compacted a minimum of 6 inches below planned grade to assure a uniformly compacted finished surface.
- E. **All earthen liners located in areas overlying the recharge zones of major or minor aquifers, as defined by the Texas Water Development Board, shall be at least 36 inches thick meeting permeability less than or equal to  $1 \times 10^{-7}$  cm/sec.**
- F. Synthetic membrane linings must have a minimum thickness of 40 mils and have a leak detection system;
- G. Certification by a Texas licensed professional engineer must be furnished stating that the pond liner meets the appropriate criteria prior to use of the facilities;
- H. Soil embankment walls must have a top width of at least five feet. The interior and exterior slopes of soil embankment walls must be no steeper than one foot vertical to three feet horizontal unless alternate methods of slope stabilization are used. All soil embankment walls must be protected by a vegetative cover or other stabilizing material to prevent erosion. Erosion stops and water seals must be installed on all pipe penetrating the embankments; and
- I. An alternative method of pond lining that provides equivalent or better water quality protection than provided under this section may be utilized with the prior approval of the executive director; and
- J. Reclaimed water may be stored in leak-proof, fabricated tanks;

- K. Subsequent holding ponds utilized for the receipt and storage of reclaimed water of a quality that could cause or causes a violation of a surface water quality standard or impairment of groundwater for its actual or intended use will be also subject to the storage requirements of this section.

### III. Specific Uses and Quality Standards for Reclaimed Water

- A. Numerical parameter limits pertaining to specific reclaimed water use categories are contained in this section. These limits apply to reclaimed water before discharge to initial holding ponds or a reclaimed water distribution system.
- B. The reclaimed water producer shall establish that the reclaimed water meets the quality limits at the sample point for the intended use in accordance with the monitoring requirements identified in Section IV, Sampling and Analysis.
- C. Types and quality standards for reclaimed water.
1. Type I Reclaimed Water Use. The use of Type I reclaimed water is for situations where the public may come in contact with the reclaimed water. The uses allowed by this authorization are:
    - a. Irrigation: landscape, public parks, golf courses, schoolyards, athletic fields, pastures land for milking animals, food crops
    - b. Fire protection, (internal sprinkler system of external fire hydrants)
    - c. Maintenance of impoundments where recreational activities, such as wading or fishing, are anticipated;
    - d. Maintenance of any off channel water bodies where recreational activities, such as wading or fishing, are anticipated even though the water body was not specifically designed for such a use.
    - e. Toilet or urinal flush water.
    - f. Type I reclaimed water may also be used for any of the authorized Type II uses.
  2. The following conditions apply to Type I use of reclaimed water. At a minimum, the reclaimed water producer shall transfer only reclaimed water of the following quality as described for Type I reclaimed water use. Type I reclaimed water on a 30-day average must have a quality of no more than:

**Table 1. Type I Quality Requirements**

Parameter	Limit	Limit Type
Turbidity	3 NTUs	30-day average
CBOD <sub>5</sub>	5 mg/l	30-day average
<i>E. coli</i>	20/100 ml	30-day geometric mean (MPN or CFU)
<i>E. coli</i>	75/100 ml	maximum single grab sample (MPN or CFU)

3. Type II Reclaimed Water Use. The use of Type II reclaimed water is for situations where the public will not be exposed to the reclaimed water. The uses allowed by this authorization are:

- a. Irrigation of food crops where the reclaimed water is not likely to have direct contact with the edible part of the crop unless food crop undergoes pasteurization prior to distribution for consumption.
  - b. Irrigation of animal food crops other than pastures for milking animals.
  - c. Maintenance of impoundments where direct human contact is not likely.
  - d. Soil compaction or dust control in construction areas where application procedures minimize aerosol drift to public areas.
  - e. Cooling tower makeup water. Use for cooling towers that produce significant aerosols adjacent to public access areas may have special requirements.
4. The following conditions apply to Type II use of reclaimed water. At a minimum, the reclaimed water producer shall transfer only reclaimed water of the following quality. Type II reclaimed water on a 30-day average must have a quality of no more than:

**Table 2. Type II Quality Requirements**

Parameter	Limit	Limit Type
CBOD <sub>5</sub>	15 mg/l	30-day average
<u>E. coli</u>	200/100 ml	30-day geometric mean (MPN or CFU)
<u>E. coli</u>	800/100 ml	maximum single grab sample (MPN or CFU)

**D. Test Procedures**

1. Test procedures for the analysis of pollutants must comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests, and calculations must accurately represent the reclaimed water.
2. All laboratory tests submitted to demonstrate compliance with this authorization must meet the requirements of 30 TAC Chapter 25, *Environmental Testing Laboratory Accreditation and Certification*.

**IV. Sampling and Analysis**

- A. The reclaimed water producer shall sample the reclaimed water prior to distribution to the entity that first received the reclaimed water after it leaves the wastewater treatment facility (provider or user) to assure that the water quality meets the standard for the contracted use.
- B. Analytical methods must be in compliance with 30 TAC Chapter 319, *Monitoring and Reporting*.
- C. The minimum sampling and analysis frequency for Type I reclaimed water is twice per week when reclaimed water is being produced and shall be reported as outfall 800.
- D. The minimum sampling and analysis frequency for Type II reclaimed water is once per week when reclaimed water is being produced and shall be reported as outfall 900.
- E. The monitoring must be done after the final treatment unit.
- F. The records of the monitoring must be kept on a monthly basis and be available at the facility site for inspection by representatives of the Commission for at least five years.

**V. Record Keeping and Reporting**

- A. The reclaimed water provider and user shall maintain records on site for a period of at least five years.
- B. The producer shall maintain the following records:
  - 1. copies of notifications made to the commission concerning reclaimed water projects;
  - 2. as applicable, copies of contracts with each reclaimed water user (this requirement does not include reclaimed water users at residences that have separate distribution lines for potable water);
  - 3. records of the volume of water delivered to each reclaimed water user per delivery (this requirement does not apply to reclaimed water users at residences that have separate distribution lines for potable water); and
  - 4. reclaimed water quality analyses.
- C. The reclaimed water provider or producer shall report to the commission on a monthly basis the following information on forms furnished by the executive director. The reports are due by the 20th day of the month following the reporting period.
  - 1. volume of reclaimed water delivered to each user; and
  - 2. quality of reclaimed water delivered to a user or provider reported as a monthly average for each quality criteria, except those listed as "not to exceed" that must be reported as individual analyses.
- D. Monitoring requirements contained in the authorization are suspended from the effective date of the authorization until the reclaimed water is transferred. The provider shall provide written notice to the Water Quality Application Team (MC 148) and the appropriate TCEQ regional office at least thirty (30) days prior to transfer of reclaimed water.

**VI. Transfer of Reclaimed Water**

- A. Reclaimed water must be transferred from a provider to a user on a demand only basis. A reclaimed water user may refuse delivery of reclaimed water at any time.
- B. All reclaimed water transferred to a user must be of at least the quality specified in Section IV, *Sampling and Analysis*.
- C. Transfer must be by pipes or tank trucks.
- D. The transfer of reclaimed water must be terminated immediately if a provider becomes aware of the misuse of the reclaimed water by the user, regardless of contract provisions.

**VII. Restrictions**

- A. This authorization does not convey any property right and does not grant any exclusive privilege.
- B. This authorization does not allow the use of reclaimed water on land that is authorized as a disposal site under either a Texas Pollutant Discharge Elimination System (TPDES) permit or a Texas Land Application Permit (TLAP).

### **VIII. Responsibilities and Contracts**

- A. The producer of reclaimed water is not liable for misapplication of reclaimed water by users, except as provided in this section. Both the reclaimed water provider and user have at least but are not limited to the following responsibilities:
1. The reclaimed water producer shall: transfer reclaimed water of at least the minimum quality required by this authorization at the point of delivery to the user;
    - a. sample and analyze the reclaimed water and report the analyses in accordance with Section IV, Sampling and Analysis, and Section V, Recordkeeping and Reporting; and
    - b. notify the executive director in writing within five (5) days after obtaining knowledge of reclaimed water use not authorized by the executive director.
  2. The reclaimed water provider shall:
    - a. ensure construction of reclaimed water distribution systems in accordance with 30 TAC Chapter 217, Design of Domestic Wastewater Systems, and in accordance with approved plans and specifications;
    - b. transfer reclaimed water of at least the minimum quality required by this authorization at the point of delivery to the user;
    - c. notify the executive director in writing within five (5) days after obtaining knowledge of reclaimed water use not authorized by the executive director; and
    - d. not be found in violation of this authorization for the misuse of the reclaimed water by the user if transfer of such water is shut off promptly upon knowledge of misuse regardless of contract provisions.
  3. The reclaimed water user shall:
    - a. use the reclaimed water in accordance with this authorization; and
    - b. maintain and provide records as required by Section V, Record Keeping and Reporting.

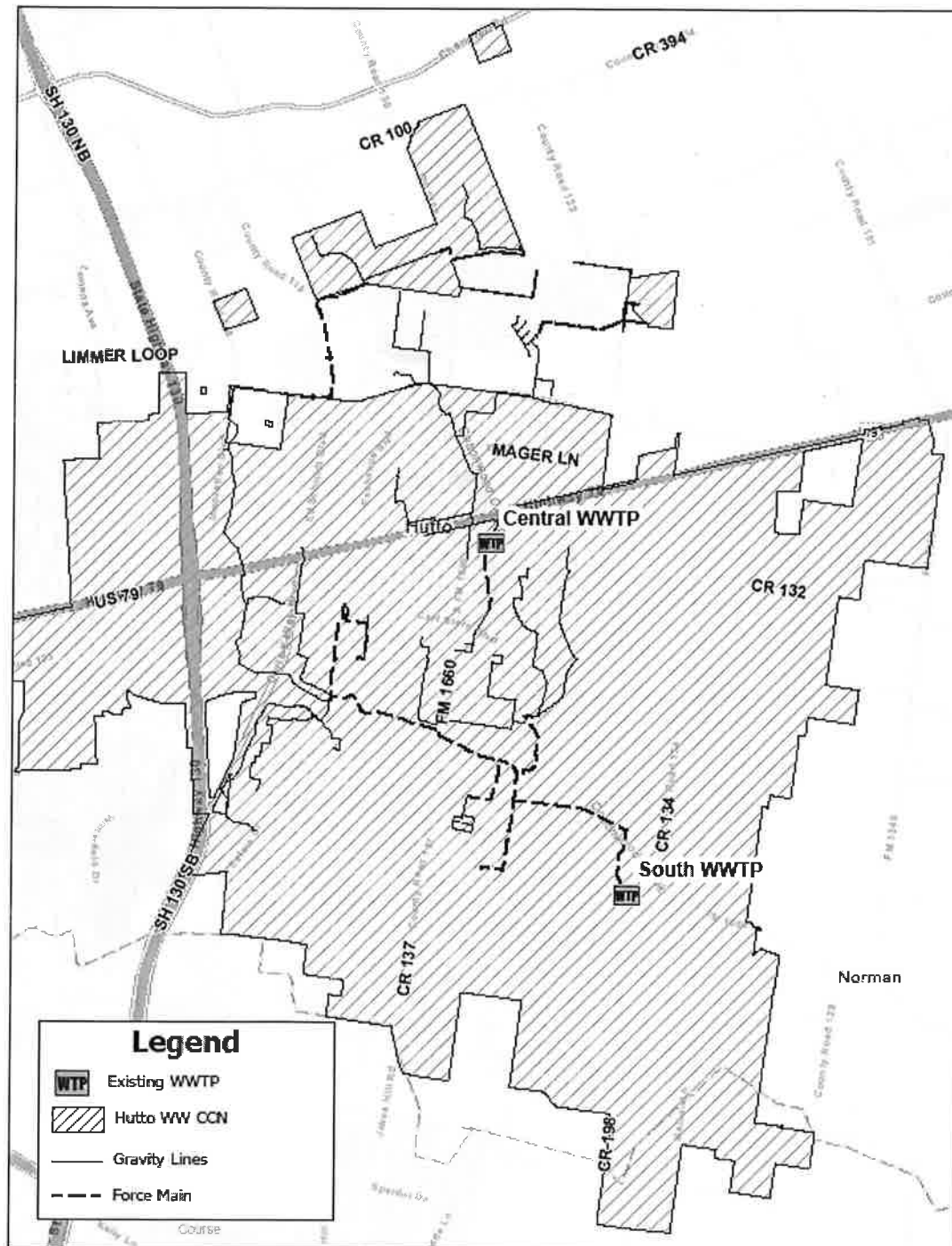
### **IX. Enforcement**

If the producer, provider, or user fail to comply with the terms of this authorization, the executive director may take enforcement action provided by the Texas Water Code §26.019 and §26.136.

### **X. Standard Provisions**

- A. This authorization is granted in accordance with the rules and orders of the commission and the laws of the state of Texas.
- B. Acceptance of this authorization constitutes an acknowledgment and agreement that the producer, provider and user will comply with all the terms, provisions, conditions, limitations and restrictions embodied in this authorization and with the rules and other orders of the commission and the laws of the state of Texas. Agreement is a condition precedent to the granting of this authorization.

## XI. Service Area Map



Jon Niermann, *Chairman*  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 8, 2024

Ankita Jain, P.E.  
Garver LLC  
3755 S Capital of Texas Hwy., Suite 325  
Austin, TX 78704

Re: City of Hutto  
Hutto SWWTP UV Improvements  
Permit No. WQ0011324-002  
WWPR Log No. 0524/131  
CN600336861, RN106037260  
Williamson County

Dear Ms. Jain:

On April 26, 2024, Texas Commission on Environmental Quality (TCEQ) received the Peracetic Acid Testing Technical Memorandum dated April 2024.

The rules which regulate the design, installation and testing of domestic wastewater projects are found in 30 TAC, Chapter 217, of the Texas Commission on Environmental Quality (TCEQ) rules titled, Design Criteria for Wastewater Systems.

This technical report outlines the results of a full-scale testing protocol for chemical disinfection using Peracetic Acid (PAA) at the City of Hutto South Wastewater Treatment Plant (SWWTP). This testing protocol was performed in response to TCEQ's request for a full-scale testing period of 30 days using PAA with the existing ultraviolet (UV) system to evaluate both E.coli inactivation and the possible impact of PAA residual into the receiving body.

Upon TCEQ review, your PAA disinfection system is approved. This is a temporary approval that is being granted until the SWWTP expansion to 6.0 MGD.

Please be reminded of 30 TAC §217.7(a) of the rules which states, "Approval given by the executive director or other authorized review authority does not relieve an owner of any liability or responsibility with respect to designing, constructing, or operating a collection system or treatment facility in accordance with applicable commission rules and the associated wastewater permit".

Ankita Jain, P.E.

Page 2

June 8, 2024

If you have any questions, or if we can be of any further assistance, please call me at (512) 239-4924.

Sincerely,

A handwritten signature in black ink, appearing to read 'Baltazar', with a stylized, flowing script.

Baltazar Lucero-Ramirez, P.E.  
Wastewater Permits Section (MC 148)  
Water Quality Division  
Texas Commission on Environmental Quality

BLR/

cc: TCEQ, Region 11 Office

cc: TCEQ, Water Quality Division, Wastewater Permitting Section, Municipal Permits Team.





**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**  
**Texas Pollutant Discharge Elimination System**  
**Stormwater Multi-Sector General Permit**

The Notice of Intent (NOI) for the facility listed below was received on November 4, 2021. The intent to discharge stormwater associated with industrial activity under the terms and conditions imposed by the Texas Pollutant Discharge Elimination System (TPDES) stormwater Multi-Sector General Permit (MSGP) TXR050000 is acknowledged. Your facility's unique TPDES MSGP stormwater authorization number is:

**TXR05DP10**

Coverage Effective: August 03, 2017

Sector: T Primary SIC code: 4952

TCEQ's stormwater MSGP requires certain stormwater pollution prevention and control measures, possible monitoring and reporting, and periodic inspections. Among the conditions and requirements of this permit, you must have prepared and implemented a stormwater pollution prevention plan (SWP3) that is tailored to your industrial site. As a facility authorized to discharge under the stormwater MSGP, all terms and conditions must be complied with to maintain coverage and avoid possible penalties.

**Facility/Site Information:**

RN106037260  
Hutto - South Wastewater Treatment Facility  
10700 S FM 1660  
Hutto, TX 78634  
Williamson County

**Operator:**

CN600506794  
Brazos River Authority  
4600 Cobbs Dr  
Waco, TX 76710

**The MSGP and all authorizations expire on August 14, 2026, unless otherwise amended.** If you have any questions related to your application, you may contact the Stormwater Processing Center by email at [SWPERMIT@tceq.texas.gov](mailto:SWPERMIT@tceq.texas.gov) or by telephone at (512) 239-3700. For technical issues, you may contact the stormwater technical staff by email at [SWGPA@tceq.texas.gov](mailto:SWGPA@tceq.texas.gov) or by telephone at (512) 239-4671. Also, you may obtain information on the TCEQ web site at <https://www.tceq.texas.gov/goto/wq-dpa>. A copy of this document should be kept with your SWP3.

A handwritten signature in black ink, appearing to read "T. G. Baker".

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FOR THE COMMISSION

Issued Date: November 04, 2021

## HUTTO

### OPERATORS TCEQ WASTEWATER LICENSE

OPERATOR	LICENSE NUMBER	EXPIRATION DATE	LICENSE TYPE
1 Salvador Villarreal "A"	WW0034771	02/27/2026	Class A
EMAIL: Salvador.Villarreal@brazos.org			
2 Bruce Wayne Bega "B"	WW0073133	07/24/2026	N/A
EMAIL: Bruce.Bega@brazos.org			
3 Randy L. Lock "A"	WW0012564	08/24/2026	Class A
EMAIL: Randy.Lock@brazos.org			

# DAILY EFFLUENT WORKSHEET

LaMotte Smart 3 Colorimeter - SN# - Method# 4500- CL G
Oakton pH Tester 30 - Method# 4500- H+ B
Hach-Phosphate colorimeter- SN# 16100E312761-Method 8048
YSI Model 55 - SN# - Method 4500-O G
HACH-PAA/Hydrogen Peroxide (H2O2) Method 10290

Analyst(s): Print: Bruce Bege

Sign: Bruce Bege

Facility <b>HUTTO SOUTH</b>		<b>FINAL</b>		#1 <b>MAGNA FLOW METER</b>	
Date: <u>10-16-24</u>	pH	<u>7.10</u>		Today - <u>2828.6891</u>	
Time: <u>08:20</u>	DO	<u>7.40</u>		Yesterday - <u>2827.0440</u>	
Flow: <u>1.623MGD</u>	TEMP	<u>28.2</u>		Total - <u>1.6451</u>	
	NH3	<u>0.08</u>		Elec. Meter: <u>52689</u>	
	PO4			<b>UV DATA</b>	
	PAA	<u>0.82</u>			
	H2O2	<u>4.60</u>		TIME: <u>08:20</u>	
	<b>BASIN 1</b>	<b>BASIN 2</b>	<b>BASIN 3</b>	UVT: <u>60.70</u> <u>7.110</u>	
pH				DOSAGE: <u>0</u> <u>MJ/CY</u>	
D.O Zone 1	<u>5.61P</u>	<u>5.40</u>	<u>5.70</u>		
D.O Zone 2				<b>Rain Log / SWP3 Log</b>	
Temperature	<u>29.0</u>	<u>29.0</u>	<u>29.1</u>	Rain (in.) <u>0.0</u>	
NH3				Samples: <u>None</u> BOD Metals Visuals	
PO4				Visual Forms: Yes <u>NO</u>	
				Notes:	
<b>30 MIN Settling</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>
SBR 1 <u>17.3</u>	<u>240</u>				<u>180</u>
SBR 2 <u>18.7</u>	<u>250</u>				<u>190</u>
SBR 3 <u>16.6</u>	<u>290</u>				<u>210</u>

NOTE: LOT #s must be updated after purchasing new chemical.

## CALIBRATION VERIFICATION

PH Calibration	D.O. Meter calibration
4.00 - <u>4.00</u>	Altitude- <u>7</u>
7.00 - <u>7.00</u>	Temp - <u>26.0</u>
10.00 - <u>10.01</u>	Salinity- <u>0.0</u>
Temp. - <u>20.3</u>	Reading- <u>8.70</u>

Refrigerator Temp Deg, C: 3	
Auto Sampler Temperatures	
Effluent - 4	Influent - 3

Standard	Lot #	EXP. DATE
pH 4	3GG0502	Jul-25
pH 7	3GG0021	Jul-25
pH 10	3GG0187	Jul-25
PO4	A3236	Jan-27
AMMONIA #1	2277314	Nov-25
AMMONIA #2	330431102	Nov-25
Ammonium Molybdate	A2013	May-27
DPD packets	A3222	Aug-28
Potassium Iodide	A3269	Sep-27



**Brazos River Authority - Operations**  
***E. coli* by IDEXX - Enzyme Substrate Method**  
**SM 9223 B**

Analysis Date In: 10-15-21  
 Analysis Start Time: 08:30  
 Incubator Time In: 08:38  
 Observed Temp In: 34.9 °C  
 Correction Factor: 0 °C  
 Corrected Temp In: 34.9 °C  
 Analyst In: SO

Equipment/Supplies	ID/Lot#
Sterile Dilution H <sub>2</sub> O	27023
Media/Reagent	440496
Quant-ITray@2000	CY 1135
290ml Sample Bottles	136011
120ml Sample Bottles	2310209898
Incubator	2071090216917
Data Logger	230803820

Analysis Date Out: 10-16-21  
 Incubator Time Out: 08:40  
 Observed Temp Out: 34.7 °C  
 Correction Factor: 0 °C  
 Corrected Temp Out: 34.7 °C  
 Analyst Out: BS

Sample ID	Collect Date	Collect Time	Volume	Dilution Factor	Total Coliform		<i>E. coli</i>		Result MPN/100 mL
					Large	Small	Large	Small	
Blank (10-15-21)	NA	NA	99 ml	1	0	0	0	0	C1
HOS 10-15-21	10-15-21	08:26	100ml	1	49	32	4	0	4.1
HOS 10-15-21 DUP	10-15-21	08:30	100ml	1	49	35	4	0	4.1

☐ Samples received on ice. (If not, record comment below.)

Comments: #3 Absence in 211 modules

Note: Analysis start time must begin within eight hours of earliest sample collection time.

City of Hutto

Hutto South WWTP

TPDES Permit No. WQ0011324002

2024 Annual Sludge Report/ Data Summary

WWTP Solids Production Worksheet - 2023					
Month / Year	% Solids	Wet Pounds to Disposal	Wet Tons to Disposal	Dry Tons	Dry Metric Tons
September 2023	20.14	297880	148.94	30.00	27.21
October 2023	17.17	352040	176.02	30.22	27.42
November 2023	17.25	379120	189.56	32.70	29.66
December 2023	17.56	584220	292.11	51.29	46.53
January 2024	17.13	345200	172.6	29.57	26.82
February 2024	17.09	279440	139.72	23.88	21.66
March 2024	16.84	503900	251.95	42.43	38.49
April 2024	17.68	474360	237.18	41.93	38.04
May 2024	17.56	487740	243.87	42.82	38.85
June 2024	16.71	303180	151.59	25.33	22.98
July 2024	16.96	457400	228.7	38.79	35.19
August 2024	17.06	475540	237.77	40.56	36.80
Totals		4940020	2470.01	429.52	389.66



September 03, 2024

Randy Lock  
Brazos River Authority  
Waco  
Georgetown, Texas 76710  
TEL: (254) 493-7177

FAX:

Order No.: 2408159

RE: Hutto South Permit Renewal

Dear Randy Lock:

DHL Analytical, Inc. received 1 sample(s) on 8/13/2024 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in red ink, appearing to read "John DuPont".

John DuPont  
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211 - TX-C24-00120



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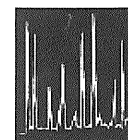




## **CUSTODY SEAL**

DATE 8-13-21

SIGNATURE [Signature]



**DHL**  
ANALYTICAL

Sample Receipt Checklist

Client Name: Brazos River Authority

Date Received: 8/13/2024

Work Order Number: 2408159

Received by: SRM

Checklist completed by: SMunday 8/13/2024  
Signature Date

Reviewed by: SH 8/13/2024  
Initials Date

Carrier name: Hand Delivered

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/> NA <input type="checkbox"/>
Water - pH<2 acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> LOT # 13171
	Adjusted? _____	Checked by _____	
Water - pH>9 (S) or pH>10 (CN) acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> LOT # 12798
	Adjusted? _____	Checked by _____	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Cooler #	1		
Temp °C	0.7		
Seal Intact	Y		

Any No response must be detailed in the comments section below.

Client contacted: \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted: \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action: \_\_\_\_\_

**CLIENT:** Brazos River Authority  
**Project:** Hutto South Permit Renewal  
**Lab Order:** 2408159

**CASE NARRATIVE**

Samples were analyzed using the methods outlined in the following references:

E632, E200.8, E1664A, E625.1, D5812-96MOD, D7065-17, E624.1, E300 and Standard Methods.

For Diuron-Hexachlorophene analysis an MS/MSD was not performed due to insufficient sample volume. An LCS/LCSD was performed instead.

For Oil & Grease analysis an MS was not performed due to insufficient sample volume. An LCS/LCSD was performed instead.

All method blanks, sample duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Oil & Grease analysis by method E1664A Oil & Grease was detected below the reporting limit in the method blank (MB-116910). The sample may be biased high. No further corrective actions were taken.

For Anions analysis by method E300 the matrix spikes and matrix spike duplicate recoveries (2408158-01 MS/MSD & 2408159-01 MS/MSD) were slightly below control limits for Chloride. These are flagged accordingly in the enclosed QC summary report. The "S" flag denotes spike recovery was outside control limits. The LCS was within control limits for this analytes. No further corrective actions were taken.

For Volatiles analysis by method E624.1 the matrix spike and matrix spike duplicate recoveries had no recoveries for 2-Chloroethylvinylether. These are flagged accordingly. The "S" flag denotes spike recovery was outside control limits. The LCS was within control limits for this compound. No further corrective actions were taken.

For Semivolatiles analysis by method E625.1 the matrix spike and matrix spike duplicate recoveries were out of control limits for up to four compounds. In addition, the matrix spike and matrix spike duplicate had the RPD above control limits for Bis(2-chloroisopropyl)ether. These are flagged accordingly. The "S" flag denotes spike recovery was outside control limits and the "R" flag denotes the RPD was outside control limits. The LCS was within control limits for these compounds. No further corrective actions were taken.

For Pesticide analysis by method E625.1 the matrix spike and matrix spike duplicate had the RPD slightly above control limits for Endrin aldehyde. This is flagged accordingly. The "R" flag denotes the RPD was outside control limits. The percent recoveries were within control limits for this compound. No further corrective actions were taken.

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**CLIENT:** Brazos River Authority  
**Project:** Hutto South Permit Renewal  
**Lab Order:** 2408159

## **CASE NARRATIVE**

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For Semivolatiles analysis by method E625.1 the surrogate recoveries for the method blank were above control limits for three surrogates. These are flagged accordingly. The remaining surrogates were within control limits. No further corrective actions were taken.

The C-BOD analysis was sub-contracted to Aqua-Tech Laboratories.

The Mercury, TKN, Herbicide and Total Phenols analyses were sub-contracted to SPL.

**DHL Analytical, Inc.**

**Date:** 03-Sep-24

**CLIENT:** Brazos River Authority  
**Project:** Hutto South Permit Renewal  
**Lab Order:** 2408159

## Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2408159-01	001	Outfall Effluent Grab	08/13/24 11:50 AM	08/13/2024

**Lab Order:** 2408159  
**Client:** Brazos River Authority  
**Project:** Hutto South Permit Renewal

**PREP DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2408159-01A	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E624_PR	Purge and Trap Water GC/MS	08/13/24 02:32 PM	116698
2408159-01B	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E200.8_PR	Aq Digestion for Metals: ICP-MS	08/22/24 06:55 AM	116885
2408159-01C	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	M4500-NH3-D	Ammonia Preparation	08/21/24 12:58 PM	116875
	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	M4500-P E	T-Phosphorus Prep Water	08/21/24 01:38 PM	116879
2408159-01D	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	M4500-CN E	Cyanide Water Prep	08/15/24 09:29 AM	116745
2408159-01E	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	M2320 B	Alkalinity Preparation	08/16/24 09:00 AM	116783
	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E300	Anion Preparation	08/13/24 03:43 PM	116715
	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E300	Anion Preparation	08/13/24 03:43 PM	116715
	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	M2510 B	Conductivity Preparation	08/15/24 01:49 PM	116758
	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	M3500-Cr B	Hexachrom Prep Water	08/14/24 11:15 AM	116727
	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	M2540C	TDS Preparation	08/14/24 02:09 PM	116734
2408159-01F	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	M2540D	TSS Preparation	08/20/24 08:53 AM	116822
2408159-01G	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E625_PR	Semivol Extraction for 625.1	08/19/24 08:51 AM	116798
	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E625_PR	Semivol Extraction for 625.1	08/19/24 08:51 AM	116798
2408159-01H	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E625_PR	Aq Prep Sep Funnel: Pest or PCB	08/20/24 10:47 AM	116832
2408159-01I	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E625_PR	Aq Prep Sep Funnel: Pest or PCB	08/20/24 10:47 AM	116832
	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E625_PR	Aq Prep Sep Funnel: Pest or PCB	08/20/24 10:47 AM	116832
2408159-01J	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E632	632 Prep	08/16/24 09:09 AM	116771
2408159-01K	001 Outfall Effluent Grab	08/13/24 11:50 AM	Aqueous	E1664	1664 Prep	08/23/24 09:12 AM	116910

**Lab Order:** 2408159  
**Client:** Brazos River Authority  
**Project:** Hutto South Permit Renewal

**ANALYTICAL DATES REPORT**

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2408159-01A	001 Outfall Effluent Grab	Aqueous	E624.1	624.1 Volatiles Water	116698	1	08/13/24 03:33 PM	GCMS5_240813B
2408159-01B	001 Outfall Effluent Grab	Aqueous	E200.8	Total Recoverable Metals: ICP-MS	116885	1	08/23/24 10:21 AM	ICP-MS5_240823A
2408159-01C	001 Outfall Effluent Grab	Aqueous	M4500-NH3-D	Ammonia aqueous	116875	1	08/21/24 04:05 PM	WC_240821C
	001 Outfall Effluent Grab	Aqueous	M4500-P E	Total Phosphorus	116879	1	08/22/24 11:03 AM	UV/VIS_2_240822A
2408159-01D	001 Outfall Effluent Grab	Aqueous	M4500-CN E	Cyanide - Water Sample	116745	1	08/15/24 04:18 PM	UV/VIS_2_240815D
2408159-01E	001 Outfall Effluent Grab	Aqueous	M2320 B	Alkalinity	116783	1	08/16/24 03:21 PM	TITRATOR_240816A
	001 Outfall Effluent Grab	Aqueous	E300	Anions by IC method - Water	116715	1	08/13/24 08:50 PM	IC2_240813B
	001 Outfall Effluent Grab	Aqueous	E300	Anions by IC method - Water	116715	10	08/14/24 03:44 AM	IC2_240813B
	001 Outfall Effluent Grab	Aqueous	M3500-Cr B	Hexavalent Chromium-Water	116727	1	08/14/24 11:22 AM	UV/VIS_2_240814A
	001 Outfall Effluent Grab	Aqueous	M2510 B	Specific Conductance	116758	1	08/15/24 02:30 PM	WC_240815A
	001 Outfall Effluent Grab	Aqueous	M2540C	Total Dissolved Solids	116734	1	08/14/24 04:40 PM	WC_240814B
2408159-01F	001 Outfall Effluent Grab	Aqueous	M2540D	Total Suspended Solids	116822	1	08/20/24 10:05 AM	WC_240820C
2408159-01G	001 Outfall Effluent Grab	Aqueous	E625.1	625.1 Semivolatile Water	116798	1	08/20/24 01:57 PM	GCMS9_240820A
	001 Outfall Effluent Grab	Aqueous	D7065-17	Nonylphenol in Water by ASTM Method	116798	1	08/20/24 01:57 PM	GCMS9_240820D
2408159-01H	001 Outfall Effluent Grab	Aqueous	E625.1	625.1 PCB by GC/MS	116832	1	08/21/24 02:34 PM	GCMS8_240821A
2408159-01I	001 Outfall Effluent Grab	Aqueous	E625.1	625.1 Pesticide by GC/MS	116832	1	08/21/24 02:37 PM	GCMS10_240821B
	001 Outfall Effluent Grab	Aqueous	D5812-96mod	Dicofol in Water by ASTM Method	116832	1	08/21/24 02:37 PM	GCMS10_240821C
2408159-01J	001 Outfall Effluent Grab	Aqueous	E632	Diuron-Hexachlorophene by LCMS	116771	1	08/16/24 04:32 PM	LCMS2_240816A
2408159-01K	001 Outfall Effluent Grab	Aqueous	E1664A	Total Oil & Grease	116910	1	08/23/24 05:00 PM	WC_240823A
2408159-01L	001 Outfall Effluent Grab	Aqueous	E615	Herbicide in Water	R134938	1.92	08/23/24 03:50 PM	SUB_240823A
2408159-01M	001 Outfall Effluent Grab	Aqueous	M4500-NH3-D	Total Kjeldahl Nitrogen (L)	R135003	1	08/19/24 08:24 AM	SUB_240819B
2408159-01N	001 Outfall Effluent Grab	Aqueous	E245.7	Mercury Low Level	R135005	1.06	08/22/24 04:32 PM	SUB_240822A
2408159-01O	001 Outfall Effluent Grab	Aqueous	M5210B	Carbonaceous BOD	R135000	1	08/15/24 06:30 AM	SUB_240815D
2408159-01P	001 Outfall Effluent Grab	Aqueous	E420.4	Total Phenols Water	R135004	1	08/21/24 10:31 AM	SUB_240821C

# DHL Analytical, Inc.

Date: 06-Sep-24

**CLIENT:** Brazos River Authority  
**Project:** Hutto South Permit Renewal  
**Project No:**  
**Lab Order:** 2408159

**Client Sample ID:** 001 Outfall Effluent Grab  
**Lab ID:** 2408159-01  
**Collection Date:** 08/13/24 11:50 AM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>DIURON-HEXACHLOROPHENE BY LCMS</b>		<b>E632</b>		Analyst: <b>RA</b>			
Diuron	<0.0287	0.0287	0.0766	N	µg/L	1	08/16/24 04:32 PM
Hexachlorophene	<0.958	0.958	4.79	N	µg/L	1	08/16/24 04:32 PM
Surr: Carbazole	115	0	35-145		%REC	1	08/16/24 04:32 PM
<b>TOTAL RECOVERABLE METALS: ICP-MS</b>		<b>E200.8</b>		Analyst: <b>SP</b>			
Aluminum	46.7	2.50	30.0		µg/L	1	08/23/24 10:21 AM
Antimony	<0.800	0.800	2.50		µg/L	1	08/23/24 10:21 AM
Arsenic	0.686	0.500	5.00	J	µg/L	1	08/23/24 10:21 AM
Barium	29.8	3.00	10.0		µg/L	1	08/23/24 10:21 AM
Beryllium	<0.300	0.300	1.00		µg/L	1	08/23/24 10:21 AM
Cadmium	<0.300	0.300	1.00		µg/L	1	08/23/24 10:21 AM
Chromium	<2.00	2.00	5.00		µg/L	1	08/23/24 10:21 AM
Copper	3.04	1.00	10.0	J	µg/L	1	08/23/24 10:21 AM
Lead	<0.300	0.300	1.00		µg/L	1	08/23/24 10:21 AM
Nickel	<1.00	1.00	10.0		µg/L	1	08/23/24 10:21 AM
Selenium	<2.00	2.00	5.00		µg/L	1	08/23/24 10:21 AM
Silver	<0.500	0.500	2.00		µg/L	1	08/23/24 10:21 AM
Thallium	<0.500	0.500	1.50		µg/L	1	08/23/24 10:21 AM
Zinc	65.5	2.00	5.00		µg/L	1	08/23/24 10:21 AM
<b>TOTAL OIL &amp; GREASE</b>		<b>E1664A</b>		Analyst: <b>ABB</b>			
Oil & Grease	1.75	1.44	5.14	J	mg/L	1	08/23/24 05:00 PM
<b>625.1 PCB BY GC/MS</b>		<b>E625.1</b>		Analyst: <b>DEW</b>			
Aroclor 1016	<0.0979	0.0979	0.196		µg/L	1	08/21/24 02:34 PM
Aroclor 1221	<0.0979	0.0979	0.196		µg/L	1	08/21/24 02:34 PM
Aroclor 1232	<0.0979	0.0979	0.196		µg/L	1	08/21/24 02:34 PM
Aroclor 1242	<0.0979	0.0979	0.196		µg/L	1	08/21/24 02:34 PM
Aroclor 1248	<0.0979	0.0979	0.196		µg/L	1	08/21/24 02:34 PM
Aroclor 1254	<0.0979	0.0979	0.196		µg/L	1	08/21/24 02:34 PM
Aroclor 1260	<0.0979	0.0979	0.196		µg/L	1	08/21/24 02:34 PM
Total PCBs	<0.0979	0.0979	0.196		µg/L	1	08/21/24 02:34 PM
Surr: 2-Fluorobiphenyl	74.2	0	43-116		%REC	1	08/21/24 02:34 PM
Surr: 4-Terphenyl-d14	82.6	0	33-141		%REC	1	08/21/24 02:34 PM
<b>625.1 SEMIVOLATILE WATER</b>		<b>E625.1</b>		Analyst: <b>DEW</b>			
Phenols, Total	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Anthracene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Benzidine	<0.972	0.972	3.89		µg/L	1	08/20/24 01:57 PM
Benzo[a]anthracene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM

<b>Qualifiers:</b>	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified



# DHL Analytical, Inc.

Date: 06-Sep-24

**CLIENT:** Brazos River Authority  
**Project:** Hutto South Permit Renewal  
**Project No:**  
**Lab Order:** 2408159

**Client Sample ID:** 001 Outfall Effluent Grab  
**Lab ID:** 2408159-01  
**Collection Date:** 08/13/24 11:50 AM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>625.1 SEMIVOLATILE WATER</b>		<b>E625.1</b>				Analyst: <b>DEW</b>	
Benzo[a]pyrene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Bis(2-chloroethyl)ether	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Bis(2-ethylhexyl)phthalate	<2.91	2.91	5.83		µg/L	1	08/20/24 01:57 PM
Chrysene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
p-Chloro-m-Cresol	<1.94	1.94	3.89		µg/L	1	08/20/24 01:57 PM
4,6-Dinitro-o-cresol	<1.94	1.94	3.89		µg/L	1	08/20/24 01:57 PM
p-Cresol	<1.94	1.94	3.89		µg/L	1	08/20/24 01:57 PM
3,3'-Dichlorobenzidine	<0.972	0.972	4.86		µg/L	1	08/20/24 01:57 PM
2,4-Dimethylphenol	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Di-n-butyl phthalate	<2.91	2.91	5.83		µg/L	1	08/20/24 01:57 PM
Hexachlorobenzene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Hexachlorobutadiene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Hexachlorocyclopentadiene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Hexachloroethane	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
N-Nitrosodiethylamine	<1.94	1.94	3.89		µg/L	1	08/20/24 01:57 PM
N-Nitrosodi-n-butylamine	<0.972	0.972	3.89		µg/L	1	08/20/24 01:57 PM
Pentachlorobenzene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Pentachlorophenol	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Phenanthrene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Pyridine	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
1,2,4,5-Tetrachlorobenzene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
2,4,5-Trichlorophenol	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
2-Chlorophenol	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
2,4-Dichlorophenol	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
2,4-Dinitrophenol	<1.94	1.94	3.89		µg/L	1	08/20/24 01:57 PM
2-Nitrophenol	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
4-Nitrophenol	<1.94	1.94	3.89		µg/L	1	08/20/24 01:57 PM
Phenol	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
2,4,6-Trichlorophenol	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Acenaphthene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Acenaphthylene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
3,4-Benzofluoranthene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Benzo[g,h,i]perylene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Benzo[k]fluoranthene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Bis(2-chloroethoxy)methane	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Bis(2-chloroisopropyl)ether	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
4-Bromophenyl phenyl ether	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Butyl benzyl phthalate	<2.91	2.91	5.83		µg/L	1	08/20/24 01:57 PM

<b>Qualifiers:</b>	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

# DHL Analytical, Inc.

Date: 06-Sep-24

**CLIENT:** Brazos River Authority  
**Project:** Hutto South Permit Renewal  
**Project No:**  
**Lab Order:** 2408159

**Client Sample ID:** 001 Outfall Effluent Grab  
**Lab ID:** 2408159-01  
**Collection Date:** 08/13/24 11:50 AM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>625.1 SEMIVOLATILE WATER</b>		<b>E625.1</b>		Analyst: <b>DEW</b>			
2-Chloronaphthalene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
4-Chlorophenyl phenyl ether	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Dibenzo(a,h)Anthracene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Diethyl phthalate	<2.91	2.91	5.83		µg/L	1	08/20/24 01:57 PM
Dimethyl phthalate	<2.91	2.91	5.83		µg/L	1	08/20/24 01:57 PM
2,4-Dinitrotoluene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
2,6-Dinitrotoluene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Di-n-octyl phthalate	<2.91	2.91	5.83		µg/L	1	08/20/24 01:57 PM
1,2-Diphenylhydrazine	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Fluoranthene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Fluorene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Indeno[1,2,3-cd]pyrene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Isophorone	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Naphthalene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Nitrobenzene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
N-Nitrosodimethylamine	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
N-Nitrosodi-n-propylamine	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
N-Nitrosodiphenylamine	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Pyrene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
1,2,4-Trichlorobenzene	<0.972	0.972	1.94		µg/L	1	08/20/24 01:57 PM
Surr: 2,4,6-Tribromophenol	89.5	0	10-123		%REC	1	08/20/24 01:57 PM
Surr: 2-Fluorobiphenyl	72.5	0	43-116		%REC	1	08/20/24 01:57 PM
Surr: 2-Fluorophenol	42.0	0	21-100		%REC	1	08/20/24 01:57 PM
Surr: 4-Terphenyl-d14	81.5	0	33-141		%REC	1	08/20/24 01:57 PM
Surr: Nitrobenzene-d5	83.0	0	35-115		%REC	1	08/20/24 01:57 PM
Surr: Phenol-d5	21.8	0	10-94		%REC	1	08/20/24 01:57 PM
<b>625.1 PESTICIDE BY GC/MS</b>		<b>E625.1</b>		Analyst: <b>DEW</b>			
Aldrin	<0.00979	0.00979	0.00979		µg/L	1	08/21/24 02:37 PM
Carbaryl	<0.00979	0.00979	0.0294	N	µg/L	1	08/21/24 02:37 PM
Chlordane	<0.0587	0.0587	0.196	N	µg/L	1	08/21/24 02:37 PM
Chlorpyrifos	<0.00979	0.00979	0.0294	N	µg/L	1	08/21/24 02:37 PM
4,4'-DDD	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
4,4'-DDE	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
4,4'-DDT	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
Demeton (O & S)	<0.00979	0.00979	0.0294	N	µg/L	1	08/21/24 02:37 PM
Diazinon	<0.00979	0.00979	0.0294	N	µg/L	1	08/21/24 02:37 PM
Dieldrin	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
Endosulfan I	<0.00979	0.00979	0.00979		µg/L	1	08/21/24 02:37 PM

<b>Qualifiers:</b>	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
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# DHL Analytical, Inc.

Date: 06-Sep-24

**CLIENT:** Brazos River Authority  
**Project:** Hutto South Permit Renewal  
**Project No:**  
**Lab Order:** 2408159

**Client Sample ID:** 001 Outfall Effluent Grab  
**Lab ID:** 2408159-01  
**Collection Date:** 08/13/24 11:50 AM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>625.1 PESTICIDE BY GC/MS</b>		<b>E625.1</b>		Analyst: <b>DEW</b>			
Endosulfan II	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
Endosulfan sulfate	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
Endrin	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
Guthion (Azinphosmethyl)	<0.00979	0.00979	0.0294	N	µg/L	1	08/21/24 02:37 PM
Heptachlor	<0.00979	0.00979	0.00979		µg/L	1	08/21/24 02:37 PM
Heptachlor epoxide	<0.00979	0.00979	0.00979		µg/L	1	08/21/24 02:37 PM
alpha-BHC (Hexachlorocyclohexane)	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
beta-BHC (Hexachlorocyclohexane)	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
gamma-BHC (Lindane)	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
Malathion	<0.00979	0.00979	0.0294	N	µg/L	1	08/21/24 02:37 PM
Methoxychlor	<0.0196	0.0196	0.0196	N	µg/L	1	08/21/24 02:37 PM
Mirex	<0.00979	0.00979	0.0196	N	µg/L	1	08/21/24 02:37 PM
Parathion, ethyl	<0.00979	0.00979	0.0294	N	µg/L	1	08/21/24 02:37 PM
Toxaphene	<0.294	0.294	0.294		µg/L	1	08/21/24 02:37 PM
delta-BHC (Hexachlorocyclohexane)	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
Endrin aldehyde	<0.00979	0.00979	0.0196		µg/L	1	08/21/24 02:37 PM
Surr: 2-Fluorobiphenyl	65.9	0	43-116		%REC	1	08/21/24 02:37 PM
Surr: 4-Terphenyl-d14	82.4	0	33-141		%REC	1	08/21/24 02:37 PM
<b>DICOFOL IN WATER BY ASTM METHOD</b>		<b>D5812-96MOD</b>		Analyst: <b>DEW</b>			
Dicofol	<0.196	0.196	0.392	N	µg/L	1	08/21/24 02:37 PM
<b>NONYLPHENOL IN WATER BY ASTM METHOD</b>		<b>D7065-17</b>		Analyst: <b>DEW</b>			
Technical Nonylphenol	<68.0	68.0	97.2	N	µg/L	1	08/20/24 01:57 PM
<b>624.1 VOLATILES WATER</b>		<b>E624.1</b>		Analyst: <b>JVR</b>			
Acrylonitrile	<1.00	1.00	3.00		µg/L	1	08/13/24 03:33 PM
Benzene	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Bromodichloromethane	17.3	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Bromoform	1.28	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Carbon tetrachloride	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Chlorobenzene	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Chlorodibromomethane	11.5	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Chloroform	15.2	0.300	1.00		µg/L	1	08/13/24 03:33 PM
1,2-Dibromoethane	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
m-Dichlorobenzene	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
o-Dichlorobenzene	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
p-Dichlorobenzene	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM

<b>Qualifiers:</b>	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

# DHL Analytical, Inc.

Date: 06-Sep-24

**CLIENT:** Brazos River Authority  
**Project:** Hutto South Permit Renewal  
**Project No:**  
**Lab Order:** 2408159

**Client Sample ID:** 001 Outfall Effluent Grab  
**Lab ID:** 2408159-01  
**Collection Date:** 08/13/24 11:50 AM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>624.1 VOLATILES WATER</b>		<b>E624.1</b>		Analyst: <b>JVR</b>			
1,2-Dichloroethane	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
1,1-Dichloroethylene	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Methylene chloride (DCM)	<2.50	2.50	5.00		µg/L	1	08/13/24 03:33 PM
1,2-Dichloropropane	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
1,3-Dichloropropene (cis)	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
1,3-Dichloropropene (trans)	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Ethylbenzene	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Methyl ethyl ketone	<5.00	5.00	15.0		µg/L	1	08/13/24 03:33 PM
1,1,2,2-Tetrachloroethane	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Tetrachloroethylene	<0.600	0.600	2.00		µg/L	1	08/13/24 03:33 PM
Toluene	<0.600	0.600	2.00		µg/L	1	08/13/24 03:33 PM
1,1,1-Trichloroethane	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
1,1,2-Trichloroethane	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Trichloroethene	<0.600	0.600	1.00		µg/L	1	08/13/24 03:33 PM
Total THMs	45.3	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Vinyl chloride	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Acrolein	<5.00	5.00	15.0		µg/L	1	08/13/24 03:33 PM
Chloroethane	<1.00	1.00	5.00		µg/L	1	08/13/24 03:33 PM
2-Chloroethylvinylether	<6.00	6.00	10.0		µg/L	1	08/13/24 03:33 PM
1,1-Dichloroethane	<0.300	0.300	1.00		µg/L	1	08/13/24 03:33 PM
Methyl bromide	<1.00	1.00	5.00		µg/L	1	08/13/24 03:33 PM
Methyl chloride	<1.00	1.00	5.00		µg/L	1	08/13/24 03:33 PM
1,2-Trans-Dichloroethylene	<0.300	0.300	2.00		µg/L	1	08/13/24 03:33 PM
Surr: 1,2-Dichloroethane-d4	98.2	0	72-119		%REC	1	08/13/24 03:33 PM
Surr: 4-Bromofluorobenzene	104	0	76-119		%REC	1	08/13/24 03:33 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	08/13/24 03:33 PM
Surr: Toluene-d8	105	0	81-120		%REC	1	08/13/24 03:33 PM
<b>MERCURY LOW LEVEL</b>		<b>E245.7</b>		Analyst: <b>SUB</b>			
Mercury	0.00455	0.00128	0.00532	J	µg/L	1.06	08/22/24 04:32 PM
<b>TOTAL KJELDAHL NITROGEN (L)</b>		<b>M4500-NH3-D</b>		Analyst: <b>SUB</b>			
Total Kjeldahl Nitrogen	<0.00712	0.00712	0.0500		mg/L	1	08/19/24 08:24 AM
<b>CARBONACEOUS BOD</b>		<b>M5210B</b>		Analyst: <b>SUB</b>			
Carbonaceous BOD	2.00	1.00	1.00		mg/L	1	08/15/24 06:30 AM
<b>HERBICIDE IN WATER</b>		<b>E615</b>		Analyst: <b>SUB</b>			
2,4-D	<0.306	0.306	0.962		µg/L	1.92	08/23/24 03:50 PM
2,4,5-TP (Silvex)	<0.172	0.172	0.577		µg/L	1.92	08/23/24 03:50 PM

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# DHL Analytical, Inc.

Date: 06-Sep-24

**CLIENT:** Brazos River Authority  
**Project:** Hutto South Permit Renewal  
**Project No:**  
**Lab Order:** 2408159

**Client Sample ID:** 001 Outfall Effluent Grab  
**Lab ID:** 2408159-01  
**Collection Date:** 08/13/24 11:50 AM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL PHENOLS WATER</b>		<b>E420.4</b>					Analyst: <b>SUB</b>
Phenols, Total	0.0180	0.00300	0.00500		mg/L	1	08/21/24 10:31 AM
<b>ANIONS BY IC METHOD - WATER</b>		<b>E300</b>					Analyst: <b>KES</b>
Chloride	192	3.00	10.0		mg/L	10	08/14/24 03:44 AM
Fluoride	0.103	0.100	0.400	J	mg/L	1	08/13/24 08:50 PM
Nitrate-N	28.2	1.00	5.00		mg/L	10	08/14/24 03:44 AM
Sulfate	91.4	1.00	3.00		mg/L	1	08/13/24 08:50 PM
<b>ALKALINITY</b>		<b>M2320 B</b>					Analyst: <b>KES</b>
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	42.7	10.0	20.0		mg/L @ pH 4.53	1	08/16/24 03:21 PM
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	<10.0	10.0	20.0		mg/L @ pH 4.53	1	08/16/24 03:21 PM
Alkalinity, Hydroxide (As CaCO <sub>3</sub> )	<10.0	10.0	20.0		mg/L @ pH 4.53	1	08/16/24 03:21 PM
Alkalinity, Total (As CaCO <sub>3</sub> )	42.7	10.0	20.0		mg/L @ pH 4.53	1	08/16/24 03:21 PM
<b>AMMONIA AQUEOUS</b>		<b>M4500-NH3-D</b>					Analyst: <b>SMA</b>
Ammonia-N (As N)	<0.100	0.100	0.250		mg/L	1	08/21/24 04:05 PM
<b>HEXAVALENT CHROMIUM-WATER</b>		<b>M3500-CR B</b>					Analyst: <b>JS</b>
Chromium (Hex)	<3.00	3.00	3.00		µg/L	1	08/14/24 11:22 AM
Chromium (Tri)	<2.00	2.00	3.00	N	µg/L	1	08/14/24 11:22 AM
<b>CYANIDE - WATER SAMPLE</b>		<b>M4500-CN E</b>					Analyst: <b>SMA</b>
Cyanide, Amenable to Chlorination	<10.0	10.0	10.0		µg/L	1	08/15/24 04:18 PM
Cyanide, Total	<10.0	10.0	10.0		µg/L	1	08/15/24 04:18 PM
<b>SPECIFIC CONDUCTANCE</b>		<b>M2510 B</b>					Analyst: <b>KER</b>
Specific Conductance	1090	10.0	10.0		µmhos/cm @25°C	1	08/15/24 02:30 PM
<b>TOTAL DISSOLVED SOLIDS</b>		<b>M2540C</b>					Analyst: <b>KER</b>
Total Dissolved Solids (Residue, Filterable)	662	10.0	10.0		mg/L	1	08/14/24 04:40 PM
<b>TOTAL PHOSPHORUS</b>		<b>M4500-P E</b>					Analyst: <b>SMA</b>
Total Phosphorus (As P)	0.596	0.0400	0.100		mg/L	1	08/22/24 11:03 AM
<b>TOTAL SUSPENDED SOLIDS</b>		<b>M2540D</b>					Analyst: <b>KER</b>
Suspended Solids (Residue, Non-Filterable)	5.71	3.57	3.57		mg/L	1	08/20/24 10:05 AM

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CLIENT: Brazos River Authority

Work Order: 2408159

Project: Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

RunID: LCMS2\_240816A

The QC data in batch 116771 applies to the following samples: 2408159-01J

Sample ID: <b>MB-116771</b>	Batch ID: <b>116771</b>	TestNo: <b>E632</b>	Units: <b>µg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>LCMS2_240816A</b>	Analysis Date: <b>8/16/2024 3:58:21 PM</b>	Prep Date: <b>8/16/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diuron	<0.0300	0.0800								N
Hexachlorophene	<1.00	5.00								N
Surr: Carbazole	6.76		10.00		67.6	35	145			

Sample ID: <b>LCS-116771</b>	Batch ID: <b>116771</b>	TestNo: <b>E632</b>	Units: <b>µg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>LCMS2_240816A</b>	Analysis Date: <b>8/16/2024 4:09:46 PM</b>	Prep Date: <b>8/16/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diuron	1.60	0.0800	2.000	0	79.8	35	145			N
Hexachlorophene	1.97	5.00	2.000	0	98.6	35	145			N
Surr: Carbazole	6.44		10.00		64.4	35	145			

Sample ID: <b>LCSD-116771</b>	Batch ID: <b>116771</b>	TestNo: <b>E632</b>	Units: <b>µg/L</b>							
SampType: <b>LCSD</b>	Run ID: <b>LCMS2_240816A</b>	Analysis Date: <b>8/20/2024 11:23:39 AM</b>	Prep Date: <b>8/16/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diuron	1.62	0.0800	2.000	0	81.1	35	145	1.60	30	N
Hexachlorophene	1.89	5.00	2.000	0	94.3	35	145	4.47	30	N
Surr: Carbazole	6.21		10.00		62.1	35	145	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240823A

The QC data in batch 116885 applies to the following samples: 2408159-01B

Sample ID: <b>MB-116885</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 9:08:00 AM</b>	Prep Date: <b>8/22/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	<10.0	30.0								
Antimony	<0.800	2.50								
Arsenic	<2.00	5.00								
Barium	<3.00	10.0								
Beryllium	<0.300	1.00								
Cadmium	<0.300	1.00								
Chromium	<2.00	5.00								
Copper	<2.00	10.0								
Lead	<0.300	1.00								
Nickel	<3.00	10.0								
Selenium	<2.00	5.00								
Silver	<1.00	2.00								
Thallium	<0.500	1.50								
Zinc	<2.00	5.00								

Sample ID: <b>LCS-116885</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>
SampType: <b>LCS</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 9:22:00 AM</b>	Prep Date: <b>8/22/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	4930	30.0	5000	0	98.6	85	115			
Antimony	199	2.50	200.0	0	99.3	85	115			
Arsenic	195	5.00	200.0	0	97.7	85	115			
Barium	195	10.0	200.0	0	97.5	85	115			
Beryllium	197	1.00	200.0	0	98.6	85	115			
Cadmium	197	1.00	200.0	0	98.5	85	115			
Chromium	195	5.00	200.0	0	97.7	85	115			
Copper	196	10.0	200.0	0	97.9	85	115			
Lead	193	1.00	200.0	0	96.3	85	115			
Nickel	198	10.0	200.0	0	98.8	85	115			
Selenium	199	5.00	200.0	0	99.5	85	115			
Silver	194	2.00	200.0	0	97.2	85	115			
Thallium	186	1.50	200.0	0	93.1	85	115			
Zinc	197	5.00	200.0	0	98.6	85	115			

Sample ID: <b>LCSD-116885</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>
SampType: <b>LCSD</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 9:25:00 AM</b>	Prep Date: <b>8/22/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	4940	30.0	5000	0	98.7	85	115	0.129	15	
Antimony	207	2.50	200.0	0	104	85	115	4.26	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240823A

Sample ID: <b>LCSD-116885</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>
SampType: <b>LCSD</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 9:25:00 AM</b>	Prep Date: <b>8/22/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	200	5.00	200.0	0	99.9	85	115	2.17	15	
Barium	200	10.0	200.0	0	100	85	115	2.73	15	
Beryllium	199	1.00	200.0	0	99.5	85	115	0.830	15	
Cadmium	201	1.00	200.0	0	101	85	115	2.05	15	
Chromium	198	5.00	200.0	0	98.8	85	115	1.17	15	
Copper	199	10.0	200.0	0	99.6	85	115	1.78	15	
Lead	195	1.00	200.0	0	97.3	85	115	1.03	15	
Nickel	201	10.0	200.0	0	101	85	115	1.95	15	
Selenium	206	5.00	200.0	0	103	85	115	3.64	15	
Silver	202	2.00	200.0	0	101	85	115	3.64	15	
Thallium	190	1.50	200.0	0	95.1	85	115	2.11	15	
Zinc	202	5.00	200.0	0	101	85	115	2.29	15	

Sample ID: <b>2408226-02B SD</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>
SampType: <b>SD</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 9:33:00 AM</b>	Prep Date: <b>8/22/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	189	150	0	194.5				2.64	10	
Antimony	<4.00	12.5	0	0				0	10	
Arsenic	<10.0	25.0	0	0				0	10	
Barium	109	50.0	0	105.0				3.85	10	
Beryllium	<1.50	5.00	0	0				0	10	
Cadmium	<1.50	5.00	0	0				0	10	
Chromium	<10.0	25.0	0	2.769				0	10	
Copper	<10.0	50.0	0	0				0	10	
Lead	<1.50	5.00	0	0				0	10	
Nickel	<15.0	50.0	0	0				0	10	
Selenium	<10.0	25.0	0	4.423				0	10	
Silver	<5.00	10.0	0	0				0	10	
Thallium	<2.50	7.50	0	0				0	10	
Zinc	<10.0	25.0	0	3.166				0	10	

Sample ID: <b>2408226-02B PDS</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>
SampType: <b>PDS</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 9:58:00 AM</b>	Prep Date: <b>8/22/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	5100	30.0	5000	194.5	98.1	75	125			
Antimony	203	2.50	200.0	0	101	75	125			
Arsenic	197	5.00	200.0	0	98.7	75	125			
Barium	304	10.0	200.0	105.0	99.5	75	125			
Beryllium	200	1.00	200.0	0	100	75	125			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL  
DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified



**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240823A

Sample ID: <b>2408226-02B PDS</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>							
SampType: <b>PDS</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 9:58:00 AM</b>	Prep Date: <b>8/22/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Cadmium	204	1.00	200.0	0	102	75	125			
Chromium	207	5.00	200.0	2.769	102	75	125			
Copper	197	10.0	200.0	0	98.6	75	125			
Lead	200	1.00	200.0	0	100	75	125			
Nickel	203	10.0	200.0	0	102	75	125			
Selenium	200	5.00	200.0	4.423	97.9	75	125			
Silver	177	2.00	200.0	0	88.4	75	125			
Thallium	201	1.50	200.0	0	100	75	125			
Zinc	200	5.00	200.0	3.166	98.6	75	125			

Sample ID: <b>2408226-02B MS</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>							
SampType: <b>MS</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 10:01:00 AM</b>	Prep Date: <b>8/22/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Aluminum	5040	30.0	5000	194.5	97.0	70	130			
Antimony	197	2.50	200.0	0	98.7	70	130			
Arsenic	193	5.00	200.0	0	96.7	70	130			
Barium	304	10.0	200.0	105.0	99.5	70	130			
Beryllium	194	1.00	200.0	0	97.1	70	130			
Cadmium	196	1.00	200.0	0	98.2	70	130			
Chromium	197	5.00	200.0	2.769	96.9	70	130			
Copper	191	10.0	200.0	0	95.3	70	130			
Lead	192	1.00	200.0	0	96.2	70	130			
Nickel	191	10.0	200.0	0	95.6	70	130			
Selenium	196	5.00	200.0	4.423	95.6	70	130			
Silver	192	2.00	200.0	0	96.2	70	130			
Thallium	189	1.50	200.0	0	94.3	70	130			
Zinc	193	5.00	200.0	3.166	94.7	70	130			

Sample ID: <b>2408226-02B MSD</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 10:04:00 AM</b>	Prep Date: <b>8/22/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Aluminum	5100	30.0	5000	194.5	98.0	70	130	1.03	15	
Antimony	201	2.50	200.0	0	100	70	130	1.65	15	
Arsenic	196	5.00	200.0	0	98.1	70	130	1.52	15	
Barium	307	10.0	200.0	105.0	101	70	130	1.13	15	
Beryllium	196	1.00	200.0	0	98.0	70	130	1.00	15	
Cadmium	198	1.00	200.0	0	99.1	70	130	0.869	15	
Chromium	200	5.00	200.0	2.769	98.4	70	130	1.46	15	
Copper	193	10.0	200.0	0	96.6	70	130	1.41	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL  
DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240823A

Sample ID: <b>2408226-02B MSD</b>	Batch ID: <b>116885</b>	TestNo: <b>E200.8</b>	Units: <b>µg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>ICP-MS5_240823A</b>	Analysis Date: <b>8/23/2024 10:04:00 AM</b>	Prep Date: <b>8/22/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	195	1.00	200.0	0	97.3	70	130	1.16	15	
Nickel	194	10.0	200.0	0	97.0	70	130	1.47	15	
Selenium	196	5.00	200.0	4.423	95.9	70	130	0.256	15	
Silver	194	2.00	200.0	0	97.2	70	130	0.986	15	
Thallium	192	1.50	200.0	0	95.8	70	130	1.58	15	
Zinc	195	5.00	200.0	3.166	96.1	70	130	1.39	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS10\_240821B

The QC data in batch 116832 applies to the following samples: 2408159-01H, 2408159-01I

Sample ID: <b>LCS-116832</b>	Batch ID: <b>116832</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS10_240821B</b>	Analysis Date: <b>8/21/2024 10:53:00 AM</b>	Prep Date: <b>8/20/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4,4'-DDD	0.289	0.0200	0.4000	0	72.2	0.1	135			
4,4'-DDE	0.289	0.0200	0.4000	0	72.3	19	120			
4,4'-DDT	0.288	0.0200	0.4000	0	71.9	0.1	171			
Aldrin	0.277	0.0100	0.4000	0	69.3	7	152			
alpha-BHC (Hexachlorocyclohexane)	0.284	0.0200	0.4000	0	71.0	42	108			
beta-BHC (Hexachlorocyclohexane)	0.290	0.0200	0.4000	0	72.4	42	131			
Carbaryl	0.346	0.0300	0.4000	0	86.6	38	168			N
Chlorpyrifos	0.377	0.0300	0.4000	0	94.4	42	131			N
delta-BHC (Hexachlorocyclohexane)	0.305	0.0200	0.4000	0	76.1	0.1	120			
Diazinon	0.373	0.0300	0.4000	0	93.4	52	120			N
Dieldrin	0.298	0.0200	0.4000	0	74.6	44	119			
Endosulfan I	0.305	0.0100	0.4000	0	76.2	47	128			
Endosulfan II	0.296	0.0200	0.4000	0	74.1	52	125			
Endosulfan sulfate	0.314	0.0200	0.4000	0	78.4	0.1	120			
Endrin	0.325	0.0200	0.4000	0	81.2	50	151			
Endrin aldehyde	0.129	0.0200	0.4000	0	32.3	0.1	189			
gamma-BHC (Lindane)	0.284	0.0200	0.4000	0	70.9	41	111			
Guthion (Azinphosmethyl)	0.392	0.0300	0.4000	0	97.9	44	193			N
Heptachlor	0.297	0.0100	0.4000	0	74.3	0.1	172			
Heptachlor epoxide	0.304	0.0100	0.4000	0	76.0	71	120			
Malathion	0.471	0.0300	0.4000	0	118	56	161			N
Methoxychlor	0.306	0.0200	0.4000	0	76.5	38	156			N
Mirex	0.253	0.0200	0.4000	0	63.4	27	131			N
Parathion, ethyl	0.421	0.0300	0.4000	0	105	13	184			N
Demeton (O & S)	0.370	0.0300	0.4000	0	92.6	28	154			N
Surr: 2-Fluorobiphenyl	2.76		4.000		69.0	43	116			
Surr: 4-Terphenyl-d14	3.07		4.000		76.7	33	141			

Sample ID: <b>MB-116832</b>	Batch ID: <b>116832</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS10_240821B</b>	Analysis Date: <b>8/21/2024 12:45:00 PM</b>	Prep Date: <b>8/20/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4,4'-DDD	<0.0100	0.0200								
4,4'-DDE	<0.0100	0.0200								
4,4'-DDT	<0.0100	0.0200								
Aldrin	<0.0100	0.0100								
alpha-BHC (Hexachlorocyclohexane)	<0.0100	0.0200								
beta-BHC (Hexachlorocyclohexane)	<0.0100	0.0200								
Carbaryl	<0.0100	0.0300								N
Chlordane	<0.0600	0.200								N

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS10\_240821B

Sample ID: <b>MB-116832</b>	Batch ID: <b>116832</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS10_240821B</b>	Analysis Date: <b>8/21/2024 12:45:00 PM</b>	Prep Date: <b>8/20/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorpyrifos	<0.0100	0.0300								N
delta-BHC (Hexachlorocyclohexane)	<0.0100	0.0200								
Diazinon	<0.0100	0.0300								N
Dieldrin	<0.0100	0.0200								
Endosulfan I	<0.0100	0.0100								
Endosulfan II	<0.0100	0.0200								
Endosulfan sulfate	<0.0100	0.0200								
Endrin	<0.0100	0.0200								
Endrin aldehyde	<0.0100	0.0200								
gamma-BHC (Lindane)	<0.0100	0.0200								
Guthion (Azinphosmethyl)	<0.0100	0.0300								N
Heptachlor	<0.0100	0.0100								
Heptachlor epoxide	<0.0100	0.0100								
Malathion	<0.0100	0.0300								N
Methoxychlor	<0.0200	0.0200								N
Mirex	<0.0100	0.0200								N
Parathion, ethyl	<0.0100	0.0300								N
Toxaphene	<0.300	0.300								
Demeton (O & S)	<0.0100	0.0300								N
Surr: 2-Fluorobiphenyl	2.90		4.000		72.4	43	116			
Surr: 4-Terphenyl-d14	3.29		4.000		82.3	33	141			

Sample ID: <b>2408124-01AMS</b>	Batch ID: <b>116832</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>MS</b>	Run ID: <b>GCMS10_240821B</b>	Analysis Date: <b>8/21/2024 4:58:00 PM</b>	Prep Date: <b>8/20/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4,4'-DDD	2.86	0.175	3.503	0	81.7	0.1	145			
4,4'-DDE	2.78	0.175	3.503	0	79.3	4	136			
4,4'-DDT	2.95	0.175	3.503	0	84.2	0.1	203			
Aldrin	2.60	0.0876	3.503	0	74.3	0.1	166			
alpha-BHC (Hexachlorocyclohexane)	2.63	0.175	3.503	0	75.1	31	121			
beta-BHC (Hexachlorocyclohexane)	3.04	0.175	3.503	0	86.7	24	149			
Carbaryl	4.28	0.263	3.503	0	122	41	195			N
Chlorpyrifos	4.30	0.263	3.503	0	123	32	149			N
delta-BHC (Hexachlorocyclohexane)	2.67	0.175	3.503	0	76.2	0.1	120			
Diazinon	4.69	0.263	3.503	0	134	40	141			N
Dieldrin	2.89	0.175	3.503	0	82.6	29	136			
Endosulfan I	2.86	0.0876	3.503	0	81.7	24	159			
Endosulfan II	4.19	0.175	3.503	0	120	30	163			
Endosulfan sulfate	3.11	0.175	3.503	0	88.9	0.1	120			
Endrin	3.22	0.175	3.503	0	92.0	23	187			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS10\_240821B

Sample ID: <b>2408124-01AMS</b>	Batch ID: <b>116832</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>							
SampType: <b>MS</b>	Run ID: <b>GCMS10_240821B</b>	Analysis Date: <b>8/21/2024 4:58:00 PM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Endrin aldehyde	1.25	0.175	3.503	0	35.6	0.1	209			
gamma-BHC (Lindane)	2.51	0.175	3.503	0	71.5	16	128			
Guthion (Azinphosmethyl)	4.42	0.263	3.503	0	126	4	226			N
Heptachlor	2.79	0.0876	3.503	0	79.6	0.1	192			
Heptachlor epoxide	2.91	0.0876	3.503	0	83.1	26	155			
Malathion	5.44	0.263	3.503	0	155	47	190			N
Methoxychlor	2.83	0.175	3.503	0	80.8	14	174			N
Mirex	2.93	0.175	3.503	0	83.7	6	154			N
Parathion, ethyl	5.45	0.263	3.503	0	156	24	192			N
Demeton (O & S)	5.36	0.263	3.503	0	153	27	189			N
Surr: 2-Fluorobiphenyl	25.7		35.03		73.4	43	116			
Surr: 4-Terphenyl-d14	29.1		35.03		83.2	33	141			

Sample ID: <b>2408124-01AMSD</b>	Batch ID: <b>116832</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>GCMS10_240821B</b>	Analysis Date: <b>8/21/2024 5:25:00 PM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4,4´-DDD	2.81	0.199	3.976	0	70.6	0.1	145	1.85	50	
4,4´-DDE	2.71	0.199	3.976	0	68.1	4	136	2.59	50	
4,4´-DDT	2.74	0.199	3.976	0	69.0	0.1	203	7.35	50	
Aldrin	2.49	0.0994	3.976	0	62.6	0.1	166	4.43	50	
alpha-BHC (Hexachlorocyclohexane)	2.76	0.199	3.976	0	69.5	31	121	4.92	50	
beta-BHC (Hexachlorocyclohexane)	3.21	0.199	3.976	0	80.8	24	149	5.71	50	
Carbaryl	3.59	0.298	3.976	0	90.4	41	195	17.4	50	N
Chlorpyrifos	3.46	0.298	3.976	0	87.1	32	149	21.5	50	N
delta-BHC (Hexachlorocyclohexane)	2.89	0.199	3.976	0	72.6	0.1	120	7.79	50	
Diazinon	3.95	0.298	3.976	0	99.4	40	141	17.1	50	N
Dieldrin	2.67	0.199	3.976	0	67.2	29	136	7.96	50	
Endosulfan I	2.81	0.0994	3.976	0	70.6	24	159	1.96	50	
Endosulfan II	3.97	0.199	3.976	0	99.9	30	163	5.28	50	
Endosulfan sulfate	3.11	0.199	3.976	0	78.1	0.1	120	0.272	50	
Endrin	3.17	0.199	3.976	0	79.6	23	187	1.75	50	
Endrin aldehyde	2.30	0.199	3.976	0	57.9	0.1	209	59.6	50	R
gamma-BHC (Lindane)	2.55	0.199	3.976	0	64.2	16	128	1.84	50	
Guthion (Azinphosmethyl)	3.88	0.298	3.976	0	97.6	4	226	13.1	50	N
Heptachlor	2.72	0.0994	3.976	0	68.4	0.1	192	2.56	50	
Heptachlor epoxide	2.81	0.0994	3.976	0	70.7	26	155	3.47	50	
Malathion	4.83	0.298	3.976	0	122	47	190	11.8	50	N
Methoxychlor	2.67	0.199	3.976	0	67.0	14	174	5.97	50	N
Mirex	2.31	0.199	3.976	0	58.2	6	154	23.6	50	N
Parathion, ethyl	4.79	0.298	3.976	0	121	24	192	12.8	50	N

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL  
DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS10\_240821B

Sample ID: 2408124-01AMSD	Batch ID: 116832	TestNo: E625.1	Units: µg/L							
SampType: MSD	Run ID: GCMS10_240821B	Analysis Date: 8/21/2024 5:25:00 PM	Prep Date: 8/20/2024							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Demeton (O & S)	4.54	0.298	3.976	0	114	27	189	16.6	50	N
Surr: 2-Fluorobiphenyl	27.4		39.76		68.9	43	116	0	0	
Surr: 4-Terphenyl-d14	30.9		39.76		77.6	33	141	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS10\_240821C

The QC data in batch 116832 applies to the following samples: 2408159-01H, 2408159-01I

Sample ID: <b>LCS-116832-DICO</b>	Batch ID: <b>116832</b>	TestNo: <b>D5812-96mod</b>	Units: <b>µg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>GCMS10_240821C</b>	Analysis Date: <b>8/21/2024 12:16:00 PM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Dicofol	0.563	0.400	1.000	0	56.3	22	180			N
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Sample ID: <b>MB-116832</b>	Batch ID: <b>116832</b>	TestNo: <b>D5812-96mod</b>	Units: <b>µg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>GCMS10_240821C</b>	Analysis Date: <b>8/21/2024 12:45:00 PM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Dicofol	<0.200	0.400								N
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**Qualifiers:**

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL

DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS8\_240821A

The QC data in batch 116832 applies to the following samples: 2408159-01H, 2408159-01I

Sample ID: <b>LCS-116832-PCB</b>	Batch ID: <b>116832</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>GCMS8_240821A</b>	Analysis Date: <b>8/21/2024 1:01:00 PM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	3.00	0.200	4.000	0	74.9	37	130			
Aroclor 1260	3.15	0.200	4.000	0	78.8	19	130			
Total PCBs	6.15	0.200	8.000	0	76.9	19	130			
Surr: 2-Fluorobiphenyl	2.84		4.000		71.0	43	116			
Surr: 4-Terphenyl-d14	3.21		4.000		80.3	33	141			

Sample ID: <b>MB-116832</b>	Batch ID: <b>116832</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>GCMS8_240821A</b>	Analysis Date: <b>8/21/2024 1:32:00 PM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	<0.100	0.200								
Aroclor 1221	<0.100	0.200								
Aroclor 1232	<0.100	0.200								
Aroclor 1242	<0.100	0.200								
Aroclor 1248	<0.100	0.200								
Aroclor 1254	<0.100	0.200								
Aroclor 1260	<0.100	0.200								
Total PCBs	<0.100	0.200								
Surr: 2-Fluorobiphenyl	2.75		4.000		68.7	43	116			
Surr: 4-Terphenyl-d14	2.87		4.000		71.8	33	141			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL  
DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified



**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS9\_240820A

The QC data in batch 116798 applies to the following samples: 2408159-01G

Sample ID: <b>LCS-116798</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 10:38:00 AM</b>	Prep Date: <b>8/19/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzidine	14.3	4.00	40.00	0	35.7	5	125			
Benzo[a]anthracene	34.4	2.00	40.00	0	86.0	33	143			
Benzo[a]pyrene	38.5	2.00	40.00	0	96.2	17	163			
Chrysene	36.5	2.00	40.00	0	91.2	17	168			
2,4-Dimethylphenol	31.2	2.00	40.00	0	78.1	32	120			
4,6-Dinitro-o-cresol	40.4	4.00	40.00	0	101	10	181			
p-Chloro-m-Cresol	33.7	4.00	40.00	0	84.4	22	147			
p-Cresol	24.6	4.00	40.00	0	61.4	10	125			
Hexachlorobenzene	34.0	2.00	40.00	0	85.0	10	152			
Hexachlorobutadiene	28.9	2.00	40.00	0	72.2	24	120			
Hexachloroethane	30.7	2.00	40.00	0	76.8	40	120			
Nitrobenzene	34.5	2.00	40.00	0	86.4	35	180			
N-Nitrosodiethylamine	31.8	4.00	40.00	0	79.4	20	125			
N-Nitrosodi-n-butylamine	38.3	4.00	40.00	0	95.6	20	125			
Pentachlorobenzene	32.4	2.00	40.00	0	81.0	40	140			
Pentachlorophenol	30.9	2.00	40.00	0	77.2	14	176			
Phenanthrene	33.4	2.00	40.00	0	83.5	54	120			
Pyridine	16.3	2.00	40.00	0	40.7	10	75			
1,2,4,5-Tetrachlorobenzene	31.4	2.00	40.00	0	78.6	30	140			
2,4,5-Trichlorophenol	37.0	2.00	40.00	0	92.6	25	125			
2-Chlorophenol	29.2	2.00	40.00	0	73.1	23	134			
2,4-Dichlorophenol	32.7	2.00	40.00	0	81.6	39	135			
2,4-Dinitrophenol	32.8	4.00	40.00	0	81.9	10	191			
2-Nitrophenol	35.0	2.00	40.00	0	87.6	29	182			
4-Nitrophenol	21.6	4.00	40.00	0	53.9	10	132			
Phenol	14.4	2.00	40.00	0	36.0	5	120			
2,4,6-Trichlorophenol	35.5	2.00	40.00	0	88.7	37	144			
3,4-Benzofluoranthene	38.8	2.00	40.00	0	97.0	24	159			
Acenaphthene	34.3	2.00	40.00	0	85.7	47	145			
Acenaphthylene	33.0	2.00	40.00	0	82.5	33	145			
Anthracene	34.5	2.00	40.00	0	86.3	27	133			
Benzo[g,h,i]perylene	39.5	2.00	40.00	0	98.8	10	219			
Benzo[k]fluoranthene	35.2	2.00	40.00	0	88.0	11	162			
Bis(2-chloroethoxy)methane	32.7	2.00	40.00	0	81.7	33	184			
Bis(2-chloroethyl)ether	35.6	2.00	40.00	0	89.0	12	158			
Bis(2-chloroisopropyl)ether	29.4	2.00	40.00	0	73.6	36	166			
Bis(2-ethylhexyl)phthalate	43.2	6.00	40.00	0	108	10	158			
4-Bromophenyl phenyl ether	34.7	2.00	40.00	0	86.8	53	127			
Butyl benzyl phthalate	40.3	6.00	40.00	0	101	10	152			
2-Chloronaphthalene	33.4	2.00	40.00	0	83.6	60	120			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS9\_240820A

Sample ID: <b>LCS-116798</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 10:38:00 AM</b>	Prep Date: <b>8/19/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorophenyl phenyl ether	35.6	2.00	40.00	0	88.9	25	158			
Dibenzo(a,h)Anthracene	39.3	2.00	40.00	0	98.2	10	125			
3,3'-Dichlorobenzidine	34.0	5.00	40.00	0	85.1	10	262			
Diethyl phthalate	38.9	6.00	40.00	0	97.2	10	120			
Dimethyl phthalate	36.4	6.00	40.00	0	91.0	10	120			
Di-n-butyl phthalate	40.7	6.00	40.00	0	102	10	120			
2,4-Dinitrotoluene	37.1	2.00	40.00	0	92.8	39	139			
2,6-Dinitrotoluene	36.6	2.00	40.00	0	91.4	50	158			
Di-n-octyl phthalate	39.6	6.00	40.00	0	99.1	10	146			
1,2-Diphenylhydrazine	33.8	2.00	40.00	0	84.5	40	140			
Fluoranthene	37.6	2.00	40.00	0	94.0	26	137			
Fluorene	37.0	2.00	40.00	0	92.6	59	121			
Hexachlorocyclopentadiene	33.6	2.00	40.00	0	84.1	8	130			
Indeno[1,2,3-cd]pyrene	38.0	2.00	40.00	0	95.1	10	171			
Isophorone	32.8	2.00	40.00	0	82.1	21	196			
Naphthalene	31.4	2.00	40.00	0	78.6	21	133			
N-Nitrosodimethylamine	15.2	2.00	40.00	0	38.0	10	125			
N-Nitrosodi-n-propylamine	33.6	2.00	40.00	0	84.0	10	230			
N-Nitrosodiphenylamine	35.7	2.00	40.00	0	89.3	20	125			
Pyrene	36.5	2.00	40.00	0	91.4	52	120			
1,2,4-Trichlorobenzene	31.1	2.00	40.00	0	77.8	44	142			
Phenols, Total	14.4	2.00	40.00	0	36.0	5	120			
Surr: 2,4,6-Tribromophenol	71.4		80.00		89.2	10	123			
Surr: 2-Fluorobiphenyl	58.8		80.00		73.5	43	116			
Surr: 2-Fluorophenol	44.2		80.00		55.2	21	100			
Surr: 4-Terphenyl-d14	65.8		80.00		82.2	33	141			
Surr: Nitrobenzene-d5	67.8		80.00		84.8	35	115			
Surr: Phenol-d5	26.4		80.00		33.0	10	94			

Sample ID: <b>MB-116798</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 12:06:00 PM</b>	Prep Date: <b>8/19/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzidine	<1.00	4.00								
Benzo[a]anthracene	<1.00	2.00								
Benzo[a]pyrene	<1.00	2.00								
Chrysene	<1.00	2.00								
2,4-Dimethylphenol	<1.00	2.00								
4,6-Dinitro-o-cresol	<2.00	4.00								
p-Chloro-m-Cresol	<2.00	4.00								
p-Cresol	<2.00	4.00								

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL  
DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS9\_240820A

Sample ID: <b>MB-116798</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 12:06:00 PM</b>	Prep Date: <b>8/19/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobenzene	<1.00	2.00								
Hexachlorobutadiene	<1.00	2.00								
Hexachloroethane	<1.00	2.00								
Nitrobenzene	<1.00	2.00								
N-Nitrosodiethylamine	<2.00	4.00								
N-Nitrosodi-n-butylamine	<1.00	4.00								
Pentachlorobenzene	<1.00	2.00								
Pentachlorophenol	<1.00	2.00								
Phenanthrene	<1.00	2.00								
Pyridine	<1.00	2.00								
1,2,4,5-Tetrachlorobenzene	<1.00	2.00								
2,4,5-Trichlorophenol	<1.00	2.00								
2-Chlorophenol	<1.00	2.00								
2,4-Dichlorophenol	<1.00	2.00								
2,4-Dinitrophenol	<2.00	4.00								
2-Nitrophenol	<1.00	2.00								
4-Nitrophenol	<2.00	4.00								
Phenol	<1.00	2.00								
2,4,6-Trichlorophenol	<1.00	2.00								
3,4-Benzofluoranthene	<1.00	2.00								
Acenaphthene	<1.00	2.00								
Acenaphthylene	<1.00	2.00								
Anthracene	<1.00	2.00								
Benzo[g,h,i]perylene	<1.00	2.00								
Benzo[k]fluoranthene	<1.00	2.00								
Bis(2-chloroethoxy)methane	<1.00	2.00								
Bis(2-chloroethyl)ether	<1.00	2.00								
Bis(2-chloroisopropyl)ether	<1.00	2.00								
Bis(2-ethylhexyl)phthalate	<3.00	6.00								
4-Bromophenyl phenyl ether	<1.00	2.00								
Butyl benzyl phthalate	<3.00	6.00								
2-Chloronaphthalene	<1.00	2.00								
4-Chlorophenyl phenyl ether	<1.00	2.00								
Dibenzo(a,h)Anthracene	<1.00	2.00								
3,3'-Dichlorobenzidine	<1.00	5.00								
Diethyl phthalate	<3.00	6.00								
Dimethyl phthalate	<3.00	6.00								
Di-n-butyl phthalate	<3.00	6.00								
2,4-Dinitrotoluene	<1.00	2.00								
2,6-Dinitrotoluene	<1.00	2.00								
Di-n-octyl phthalate	<3.00	6.00								

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS9\_240820A

Sample ID: <b>MB-116798</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 12:06:00 PM</b>	Prep Date: <b>8/19/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

1,2-Diphenylhydrazine	<1.00	2.00								
Fluoranthene	<1.00	2.00								
Fluorene	<1.00	2.00								
Hexachlorocyclopentadiene	<1.00	2.00								
Indeno[1,2,3-cd]pyrene	<1.00	2.00								
Isophorone	<1.00	2.00								
Naphthalene	<1.00	2.00								
N-Nitrosodimethylamine	<1.00	2.00								
N-Nitrosodi-n-propylamine	<1.00	2.00								
N-Nitrosodiphenylamine	<1.00	2.00								
Pyrene	<1.00	2.00								
1,2,4-Trichlorobenzene	<1.00	2.00								
Phenols, Total	<1.00	2.00								
Surr: 2,4,6-Tribromophenol	116		80.00		145	10	123			S
Surr: 2-Fluorobiphenyl	94.6		80.00		118	43	116			S
Surr: 2-Fluorophenol	60.4		80.00		75.5	21	100			
Surr: 4-Terphenyl-d14	98.8		80.00		124	33	141			
Surr: Nitrobenzene-d5	109		80.00		137	35	115			S
Surr: Phenol-d5	33.2		80.00		41.5	10	94			

Sample ID: <b>2408124-01AMS</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>							
SampType: <b>MS</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 4:56:00 PM</b>	Prep Date: <b>8/19/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzidine	<9.36	37.5	374.5	0	0	5	125			S
Benzo[a]anthracene	359	18.7	374.5	0	96.0	33	143			
Benzo[a]pyrene	390	18.7	374.5	0	104	17	163			
Chrysene	351	18.7	374.5	0	93.8	17	168			
2,4-Dimethylphenol	336	18.7	374.5	0	89.8	32	120			
4,6-Dinitro-o-cresol	392	37.5	374.5	0	105	10	181			
p-Chloro-m-Cresol	351	37.5	374.5	0	93.7	22	147			
p-Cresol	334	37.5	374.5	0	89.3	10	125			
Hexachlorobenzene	331	18.7	374.5	0	88.2	10	152			
Hexachlorobutadiene	310	18.7	374.5	0	82.7	24	120			
Hexachloroethane	322	18.7	374.5	0	86.1	40	120			
Nitrobenzene	370	18.7	374.5	0	98.8	35	180			
N-Nitrosodiethylamine	344	37.5	374.5	0	91.8	20	125			
N-Nitrosodi-n-butylamine	366	37.5	374.5	0	97.6	20	125			
Pentachlorobenzene	339	18.7	374.5	0	90.4	40	140			
Pentachlorophenol	316	18.7	374.5	0	84.3	14	176			
Phenanthrene	325	18.7	374.5	0	86.9	54	120			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS9\_240820A

Sample ID: <b>2408124-01AMS</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>MS</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 4:56:00 PM</b>	Prep Date: <b>8/19/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Pyridine	290	18.7	374.5	0	77.5	10	75			S
1,2,4,5-Tetrachlorobenzene	312	18.7	374.5	0	83.2	30	140			
2,4,5-Trichlorophenol	370	18.7	374.5	0	98.7	25	125			
2-Chlorophenol	330	18.7	374.5	0	88.0	23	134			
2,4-Dichlorophenol	352	18.7	374.5	0	93.9	39	135			
2,4-Dinitrophenol	372	37.5	374.5	0	99.4	10	191			
2-Nitrophenol	368	18.7	374.5	0	98.2	29	182			
4-Nitrophenol	382	37.5	374.5	0	102	10	132			
Phenol	325	18.7	374.5	0	86.9	5	120			
2,4,6-Trichlorophenol	370	18.7	374.5	0	98.9	37	144			
3,4-Benzofluoranthene	398	18.7	374.5	0	106	24	159			
Acenaphthene	336	18.7	374.5	0	89.6	47	145			
Acenaphthylene	316	18.7	374.5	0	84.2	33	145			
Anthracene	323	18.7	374.5	0	86.4	27	133			
Benzo[g,h,i]perylene	405	18.7	374.5	0	108	10	219			
Benzo[k]fluoranthene	357	18.7	374.5	0	95.2	11	162			
Bis(2-chloroethoxy)methane	330	18.7	374.5	0	88.2	33	184			
Bis(2-chloroethyl)ether	1300	18.7	374.5	0	348	12	158			S
Bis(2-chloroisopropyl)ether	308	18.7	374.5	0	82.4	36	166			
Bis(2-ethylhexyl)phthalate	445	56.2	374.5	0	119	10	158			
4-Bromophenyl phenyl ether	344	18.7	374.5	0	91.8	53	127			
Butyl benzyl phthalate	411	56.2	374.5	0	110	10	152			
2-Chloronaphthalene	338	18.7	374.5	0	90.2	60	120			
4-Chlorophenyl phenyl ether	341	18.7	374.5	0	91.0	25	158			
Dibenzo(a,h)Anthracene	400	18.7	374.5	0	107	10	125			
3,3'-Dichlorobenzidine	127	46.8	374.5	0	34.0	10	262			
Diethyl phthalate	358	56.2	374.5	0	95.7	10	120			
Dimethyl phthalate	350	56.2	374.5	0	93.4	10	120			
Di-n-butyl phthalate	396	56.2	374.5	0	106	10	120			
2,4-Dinitrotoluene	345	18.7	374.5	0	92.0	39	139			
2,6-Dinitrotoluene	354	18.7	374.5	0	94.5	50	158			
Di-n-octyl phthalate	422	56.2	374.5	0	113	10	146			
1,2-Diphenylhydrazine	331	18.7	374.5	0	88.5	40	140			
Fluoranthene	383	18.7	374.5	0	102	26	137			
Fluorene	354	18.7	374.5	0	94.4	59	121			
Hexachlorocyclopentadiene	369	18.7	374.5	0	98.4	8	130			
Indeno[1,2,3-cd]pyrene	390	18.7	374.5	0	104	10	171			
Isophorone	336	18.7	374.5	0	89.7	21	196			
Naphthalene	309	18.7	374.5	0	82.5	21	133			
N-Nitrosodimethylamine	319	18.7	374.5	0	85.0	10	125			
N-Nitrosodi-n-propylamine	350	18.7	374.5	0	93.4	10	230			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS9\_240820A

Sample ID: <b>2408124-01AMS</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>							
SampType: <b>MS</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 4:56:00 PM</b>	Prep Date: <b>8/19/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

N-Nitrosodiphenylamine	346	18.7	374.5	0	92.5	20	125			
Pyrene	346	18.7	374.5	0	92.5	52	120			
1,2,4-Trichlorobenzene	315	18.7	374.5	0	84.0	44	142			
Phenols, Total	325	18.7	374.5	0	86.9	5	120			
Surr: 2,4,6-Tribromophenol	704		749.1		94.0	10	123			
Surr: 2-Fluorobiphenyl	612		749.1		81.8	43	116			
Surr: 2-Fluorophenol	678		749.1		90.5	21	100			
Surr: 4-Terphenyl-d14	622		749.1		83.0	33	141			
Surr: Nitrobenzene-d5	682		749.1		91.0	35	115			
Surr: Phenol-d5	596		749.1		79.5	10	94			

Sample ID: <b>2408124-01AMSD</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 5:18:00 PM</b>	Prep Date: <b>8/19/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzidine	<10.0	40.0	400.0	0	0	5	125	0	50	S
Benzo[a]anthracene	382	20.0	400.0	0	95.4	33	143	6.05	50	
Benzo[a]pyrene	425	20.0	400.0	0	106	17	163	8.57	50	
Chrysene	382	20.0	400.0	0	95.6	17	168	8.53	50	
2,4-Dimethylphenol	360	20.0	400.0	0	90.0	32	120	6.85	50	
4,6-Dinitro-o-cresol	420	40.0	400.0	0	105	10	181	6.81	50	
p-Chloro-m-Cresol	370	40.0	400.0	0	92.4	22	147	5.23	50	
p-Cresol	351	40.0	400.0	0	87.8	10	125	5.00	50	
Hexachlorobenzene	365	20.0	400.0	0	91.2	10	152	9.80	50	
Hexachlorobutadiene	336	20.0	400.0	0	83.9	24	120	8.02	50	
Hexachloroethane	350	20.0	400.0	0	87.4	40	120	8.13	50	
Nitrobenzene	400	20.0	400.0	0	100	35	180	7.88	50	
N-Nitrosodiethylamine	369	40.0	400.0	0	92.2	20	125	7.01	50	
N-Nitrosodi-n-butylamine	392	40.0	400.0	0	97.9	20	125	6.88	50	
Pentachlorobenzene	370	20.0	400.0	0	92.6	40	140	8.98	50	
Pentachlorophenol	334	20.0	400.0	0	83.5	14	176	5.56	50	
Phenanthrene	354	20.0	400.0	0	88.4	54	120	8.29	39	
Pyridine	315	20.0	400.0	0	78.7	10	75	8.11	50	S
1,2,4,5-Tetrachlorobenzene	336	20.0	400.0	0	84.0	30	140	7.47	50	
2,4,5-Trichlorophenol	392	20.0	400.0	0	97.9	25	125	5.76	50	
2-Chlorophenol	352	20.0	400.0	0	88.0	23	134	6.63	50	
2,4-Dichlorophenol	377	20.0	400.0	0	94.2	39	135	6.90	50	
2,4-Dinitrophenol	392	40.0	400.0	0	98.0	10	191	5.06	50	
2-Nitrophenol	400	20.0	400.0	0	100	29	182	8.39	50	
4-Nitrophenol	403	40.0	400.0	0	101	10	132	5.34	50	
Phenol	345	20.0	400.0	0	86.3	5	120	5.83	50	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS9\_240820A

Sample ID: <b>2408124-01AMSD</b>	Batch ID: <b>116798</b>	TestNo: <b>E625.1</b>	Units: <b>µg/L</b>
SampType: <b>MSD</b>	Run ID: <b>GCMS9_240820A</b>	Analysis Date: <b>8/20/2024 5:18:00 PM</b>	Prep Date: <b>8/19/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	397	20.0	400.0	0	99.2	37	144	6.93	50	
3,4-Benzofluoranthene	423	20.0	400.0	0	106	24	159	6.20	50	
Acenaphthene	363	20.0	400.0	0	90.8	47	145	7.85	48	
Acenaphthylene	342	20.0	400.0	0	85.4	33	145	7.93	50	
Anthracene	355	20.0	400.0	0	88.8	27	133	9.37	50	
Benzo[g,h,i]perylene	446	20.0	400.0	0	112	10	219	9.71	50	
Benzo[k]fluoranthene	394	20.0	400.0	0	98.4	11	162	9.82	50	
Bis(2-chloroethoxy)methane	361	20.0	400.0	0	90.2	33	184	8.82	50	
Bis(2-chloroethyl)ether	1280	20.0	400.0	0	320	12	158	1.90	50	S
Bis(2-chloroisopropyl)ether	30.0	20.0	400.0	0	7.50	36	166	165	50	SR
Bis(2-ethylhexyl)phthalate	480	60.0	400.0	0	120	10	158	7.45	50	
4-Bromophenyl phenyl ether	378	20.0	400.0	0	94.4	53	127	9.36	43	
Butyl benzyl phthalate	438	60.0	400.0	0	110	10	152	6.44	50	
2-Chloronaphthalene	365	20.0	400.0	0	91.3	60	120	7.84	24	
4-Chlorophenyl phenyl ether	366	20.0	400.0	0	91.4	25	158	7.12	50	
Dibenzo(a,h)Anthracene	438	20.0	400.0	0	110	10	125	9.21	50	
3,3'-Dichlorobenzidine	161	50.0	400.0	0	40.4	10	262	23.6	50	
Diethyl phthalate	384	60.0	400.0	0	95.9	10	120	6.84	50	
Dimethyl phthalate	375	60.0	400.0	0	93.8	10	120	7.00	50	
Di-n-butyl phthalate	428	60.0	400.0	0	107	10	120	7.75	47	
2,4-Dinitrotoluene	367	20.0	400.0	0	91.7	39	139	6.25	42	
2,6-Dinitrotoluene	382	20.0	400.0	0	95.5	50	158	7.63	48	
Di-n-octyl phthalate	455	60.0	400.0	0	114	10	146	7.68	50	
1,2-Diphenylhydrazine	362	20.0	400.0	0	90.6	40	140	8.92	50	
Fluoranthene	414	20.0	400.0	0	103	26	137	7.60	50	
Fluorene	381	20.0	400.0	0	95.4	59	121	7.58	38	
Hexachlorocyclopentadiene	431	20.0	400.0	0	108	8	130	15.6	50	
Indeno[1,2,3-cd]pyrene	429	20.0	400.0	0	107	10	171	9.46	50	
Isophorone	361	20.0	400.0	0	90.2	21	196	7.19	50	
Naphthalene	335	20.0	400.0	0	83.9	21	133	8.26	50	
N-Nitrosodimethylamine	350	20.0	400.0	0	87.4	10	125	9.30	50	
N-Nitrosodi-n-propylamine	374	20.0	400.0	0	93.4	10	230	6.63	50	
N-Nitrosodiphenylamine	378	20.0	400.0	0	94.4	20	125	8.66	50	
Pyrene	370	20.0	400.0	0	92.6	52	120	6.68	49	
1,2,4-Trichlorobenzene	340	20.0	400.0	0	85.0	44	142	7.70	50	
Phenols, Total	345	20.0	400.0	0	86.3	5	120	5.83	50	
Surr: 2,4,6-Tribromophenol	762		800.0		95.2	10	123	0	0	
Surr: 2-Fluorobiphenyl	672		800.0		84.0	43	116	0	0	
Surr: 2-Fluorophenol	732		800.0		91.5	21	100	0	0	
Surr: 4-Terphenyl-d14	658		800.0		82.2	33	141	0	0	
Surr: Nitrobenzene-d5	738		800.0		92.2	35	115	0	0	

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS9\_240820A

Sample ID: 2408124-01AMSD		Batch ID: 116798		TestNo: E625.1		Units: µg/L				
SampType: MSD		Run ID: GCMS9_240820A		Analysis Date: 8/20/2024 5:18:00 PM		Prep Date: 8/19/2024				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	638		800.0		79.8	10	94	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified



**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS9\_240820D

The QC data in batch 116798 applies to the following samples: 2408159-01G

Sample ID: <b>LCS-116798-NP</b>	Batch ID: <b>116798</b>	TestNo: <b>D7065-17</b>	Units: <b>µg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>GCMS9_240820D</b>	Analysis Date: <b>8/20/2024 11:22:00 AM</b>	Prep Date: <b>8/19/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Technical Nonylphenol	814	100	1000	0	81.4	40	140			N
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Sample ID: <b>MB-116798</b>	Batch ID: <b>116798</b>	TestNo: <b>D7065-17</b>	Units: <b>µg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>GCMS9_240820D</b>	Analysis Date: <b>8/20/2024 12:06:00 PM</b>	Prep Date: <b>8/19/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Technical Nonylphenol	<70.0	100								N
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**Qualifiers:**

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL

DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** WC\_240823A

The QC data in batch 116910 applies to the following samples: 2408159-01K

Sample ID: <b>MB-116910</b>	Batch ID: <b>116910</b>	TestNo: <b>E1664A</b>	Units: <b>mg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>WC_240823A</b>	Analysis Date: <b>8/23/2024 5:00:00 PM</b>	Prep Date: <b>8/23/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Oil & Grease	1.80	5.00								
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Sample ID: <b>LCS-116910</b>	Batch ID: <b>116910</b>	TestNo: <b>E1664A</b>	Units: <b>mg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>WC_240823A</b>	Analysis Date: <b>8/23/2024 5:00:00 PM</b>	Prep Date: <b>8/23/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Oil & Grease	34.9	5.00	40.00	0	87.3	78	114			
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Sample ID: <b>LCSD-116910</b>	Batch ID: <b>116910</b>	TestNo: <b>E1664A</b>	Units: <b>mg/L</b>							
SampType: <b>LCSD</b>	Run ID: <b>WC_240823A</b>	Analysis Date: <b>8/23/2024 5:00:00 PM</b>	Prep Date: <b>8/23/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Oil & Grease	35.3	5.00	40.00	0	88.3	78	114	1.14	18	
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**Qualifiers:**

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL

DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_240813B

The QC data in batch 116698 applies to the following samples: 2408159-01A

Sample ID: <b>LCS-116698</b>	Batch ID: <b>116698</b>	TestNo: <b>E624.1</b>	Units: <b>µg/L</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS5_240813B</b>	Analysis Date: <b>8/13/2024 10:42:00 AM</b>	Prep Date: <b>8/13/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	27.5	1.00	23.20	0	119	65	135			
Carbon tetrachloride	25.9	1.00	23.20	0	112	70	130			
Chlorobenzene	26.5	1.00	23.20	0	114	35	135			
Chloroform	26.2	1.00	23.20	0	113	70	135			
Chlorodibromomethane	26.9	1.00	23.20	0	116	70	135			
1,2-Dibromoethane	26.7	1.00	23.20	0	115	60	140			
1,2-Dichloroethane	25.5	1.00	23.20	0	110	70	130			
1,1-Dichloroethylene	26.1	1.00	23.20	0	113	50	150			
Methyl ethyl ketone	134	15.0	116.0	0	115	60	140			
Tetrachloroethylene	26.9	2.00	23.20	0	116	70	130			
Trichloroethene	26.8	1.00	23.20	0	115	65	135			
1,1,1-Trichloroethane	25.3	1.00	23.20	0	109	70	130			
Total THMs	106	1.00	92.80	0	114	60	140			
Vinyl chloride	26.0	1.00	23.20	0	112	5	195			
Acrolein	59.6	15.0	58.00	0	103	60	140			
Acrylonitrile	56.0	3.00	46.40	0	121	60	140			
1,1,2,2-Tetrachloroethane	26.5	1.00	23.20	0	114	60	140			
Bromoform	26.9	1.00	23.20	0	116	65	135			
Chloroethane	23.7	5.00	23.20	0	102	40	160			
2-Chloroethylvinylether	15.0	10.0	23.20	0	64.6	5	225			
Bromodichloromethane	26.2	1.00	23.20	0	113	65	135			
1,1-Dichloroethane	28.5	1.00	23.20	0	123	70	130			
1,2-Dichloropropane	29.7	1.00	23.20	0	128	35	165			
1,3-Dichloropropene (cis)	26.9	1.00	23.20	0	116	25	175			
1,3-Dichloropropene (trans)	26.0	1.00	23.20	0	112	50	150			
Ethylbenzene	25.8	1.00	23.20	0	111	60	140			
Methyl bromide	20.0	5.00	23.20	0	86.3	15	185			
Methyl chloride	31.7	5.00	23.20	0	137	5	205			
Methylene chloride (DCM)	27.2	5.00	23.20	0	117	60	140			
Toluene	26.8	2.00	23.20	0	115	70	130			
1,2-Trans-Dichloroethylene	26.5	2.00	23.20	0	114	70	130			
1,1,2-Trichloroethane	27.1	1.00	23.20	0	117	70	130			
m-Dichlorobenzene	26.6	1.00	23.20	0	115	70	130			
o-Dichlorobenzene	27.6	1.00	23.20	0	119	65	135			
p-Dichlorobenzene	26.5	1.00	23.20	0	114	65	135			
Surr: 1,2-Dichloroethane-d4	192		200.0		95.8	72	119			
Surr: 4-Bromofluorobenzene	193		200.0		96.7	76	119			
Surr: Dibromofluoromethane	195		200.0		97.3	85	115			
Surr: Toluene-d8	198		200.0		99.2	81	120			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_240813B

Sample ID: <b>MB-116698</b>	Batch ID: <b>116698</b>	TestNo: <b>E624.1</b>	Units: <b>µg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS5_240813B</b>	Analysis Date: <b>8/13/2024 11:41:00 AM</b>	Prep Date: <b>8/13/2024</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.300	1.00								
Carbon tetrachloride	<0.300	1.00								
Chlorobenzene	<0.300	1.00								
Chloroform	<0.300	1.00								
Chlorodibromomethane	<0.300	1.00								
1,2-Dibromoethane	<0.300	1.00								
1,2-Dichloroethane	<0.300	1.00								
1,1-Dichloroethylene	<0.300	1.00								
Methyl ethyl ketone	<5.00	15.0								
Tetrachloroethylene	<0.600	2.00								
Trichloroethene	<0.600	1.00								
1,1,1-Trichloroethane	<0.300	1.00								
Total THMs	<0.300	1.00								
Vinyl chloride	<0.300	1.00								
Acrolein	<5.00	15.0								
Acrylonitrile	<1.00	3.00								
1,1,2,2-Tetrachloroethane	<0.300	1.00								
Bromoform	<0.300	1.00								
Chloroethane	<1.00	5.00								
2-Chloroethylvinylether	<6.00	10.0								
Bromodichloromethane	<0.300	1.00								
1,1-Dichloroethane	<0.300	1.00								
1,2-Dichloropropane	<0.300	1.00								
1,3-Dichloropropene (cis)	<0.300	1.00								
1,3-Dichloropropene (trans)	<0.300	1.00								
Ethylbenzene	<0.300	1.00								
Methyl bromide	<1.00	5.00								
Methyl chloride	<1.00	5.00								
Methylene chloride (DCM)	<2.50	5.00								
Toluene	<0.600	2.00								
1,2-Trans-Dichloroethylene	<0.300	2.00								
1,1,2-Trichloroethane	<0.300	1.00								
m-Dichlorobenzene	<0.300	1.00								
o-Dichlorobenzene	<0.300	1.00								
p-Dichlorobenzene	<0.300	1.00								
Surr: 1,2-Dichloroethane-d4	192		200.0		95.9	72	119			
Surr: 4-Bromofluorobenzene	205		200.0		102	76	119			
Surr: Dibromofluoromethane	203		200.0		102	85	115			
Surr: Toluene-d8	209		200.0		104	81	120			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_240813B

Sample ID: 2408152-01AMS	Batch ID: 116698	TestNo: E624.1	Units: µg/L							
SampType: MS	Run ID: GCMS5_240813B	Analysis Date: 8/13/2024 6:59:00 PM	Prep Date: 8/13/2024							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	267	10.0	232.0	0	115	37	151			
Carbon tetrachloride	253	10.0	232.0	0	109	70	140			
Chlorobenzene	248	10.0	232.0	0	107	37	160			
Chloroform	255	10.0	232.0	0	110	51	138			
Chlorodibromomethane	245	10.0	232.0	0	106	53	149			
1,2-Dibromoethane	243	10.0	232.0	0	105	40	160			
1,2-Dichloroethane	252	10.0	232.0	0	109	49	155			
1,1-Dichloroethylene	247	10.0	232.0	0	106	10	234			
Methyl ethyl ketone	1410	150	1160	0	121	40	160			
Tetrachloroethylene	265	20.0	232.0	16.68	107	64	148			
Trichloroethene	259	10.0	232.0	0	112	70	157			
1,1,1-Trichloroethane	248	10.0	232.0	0	107	52	162			
Total THMs	1000	10.0	928.0	0	108	40	160			
Vinyl chloride	261	10.0	232.0	0	112	10	251			
Acrolein	640	150	580.0	0	110	40	160			
Acrylonitrile	543	30.0	464.0	0	117	40	160			
1,1,2,2-Tetrachloroethane	253	10.0	232.0	0	109	46	157			
Bromoform	245	10.0	232.0	0	105	45	169			
Chloroethane	235	50.0	232.0	0	101	14	230			
2-Chloroethylvinylether	<60.0	100	232.0	0	0	5	273			S
Bromodichloromethane	259	10.0	232.0	0	112	35	155			
1,1-Dichloroethane	274	10.0	232.0	0	118	59	155			
1,2-Dichloropropane	283	10.0	232.0	0	122	10	210			
1,3-Dichloropropene (cis)	235	10.0	232.0	0	101	10	227			
1,3-Dichloropropene (trans)	251	10.0	232.0	0	108	17	183			
Ethylbenzene	239	10.0	232.0	0	103	37	162			
Methyl bromide	181	50.0	232.0	0	78.1	10	242			
Methyl chloride	313	50.0	232.0	0	135	5	273			
Methylene chloride (DCM)	261	50.0	232.0	0	112	10	221			
Toluene	259	20.0	232.0	0	112	47	150			
1,2-Trans-Dichloroethylene	257	20.0	232.0	0	111	54	156			
1,1,2-Trichloroethane	274	10.0	232.0	0	118	52	150			
m-Dichlorobenzene	244	10.0	232.0	0	105	59	156			
o-Dichlorobenzene	247	10.0	232.0	0	107	18	190			
p-Dichlorobenzene	247	10.0	232.0	0	107	18	190			
Surr: 1,2-Dichloroethane-d4	1900		2000		95.0	72	119			
Surr: 4-Bromofluorobenzene	1860		2000		92.9	76	119			
Surr: Dibromofluoromethane	2020		2000		101	85	115			
Surr: Toluene-d8	1890		2000		94.4	81	120			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_240813B

Sample ID: 2408152-01AMSD	Batch ID: 116698	TestNo: E624.1	Units: µg/L							
SampType: MSD	Run ID: GCMS5_240813B	Analysis Date: 8/13/2024 7:25:00 PM	Prep Date: 8/13/2024							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	265	10.0	232.0	0	114	37	151	1.02	40	
Carbon tetrachloride	252	10.0	232.0	0	109	70	140	0.337	40	
Chlorobenzene	248	10.0	232.0	0	107	37	160	0.222	40	
Chloroform	251	10.0	232.0	0	108	51	138	1.43	40	
Chlorodibromomethane	246	10.0	232.0	0	106	53	149	0.382	40	
1,2-Dibromoethane	240	10.0	232.0	0	104	40	160	1.15	40	
1,2-Dichloroethane	244	10.0	232.0	0	105	49	155	3.05	40	
1,1-Dichloroethylene	249	10.0	232.0	0	107	10	234	1.01	32	
Methyl ethyl ketone	1300	150	1160	0	112	40	160	7.90	40	
Tetrachloroethylene	272	20.0	232.0	16.68	110	64	148	2.57	39	
Trichloroethene	257	10.0	232.0	0	111	70	157	0.985	40	
1,1,1-Trichloroethane	245	10.0	232.0	0	106	52	162	1.17	36	
Total THMs	994	10.0	928.0	0	107	40	160	1.04	40	
Vinyl chloride	256	10.0	232.0	0	111	10	251	1.60	40	
Acrolein	595	150	580.0	0	103	40	160	7.21	40	
Acrylonitrile	534	30.0	464.0	0	115	40	160	1.65	40	
1,1,2,2-Tetrachloroethane	251	10.0	232.0	0	108	46	157	0.571	40	
Bromoform	244	10.0	232.0	0	105	45	169	0.221	40	
Chloroethane	233	50.0	232.0	0	100	14	230	0.912	40	
2-Chloroethylvinylether	<60.0	100	232.0	0	0	5	273	0	40	S
Bromodichloromethane	252	10.0	232.0	0	109	35	155	2.79	40	
1,1-Dichloroethane	274	10.0	232.0	0	118	59	155	0.007	40	
1,2-Dichloropropane	283	10.0	232.0	0	122	10	210	0.102	40	
1,3-Dichloropropene (cis)	232	10.0	232.0	0	99.9	10	227	1.49	40	
1,3-Dichloropropene (trans)	242	10.0	232.0	0	105	17	183	3.40	40	
Ethylbenzene	244	10.0	232.0	0	105	37	162	2.24	40	
Methyl bromide	189	50.0	232.0	0	81.3	10	242	3.98	40	
Methyl chloride	305	50.0	232.0	0	132	5	273	2.44	40	
Methylene chloride (DCM)	259	50.0	232.0	0	112	10	221	0.670	28	
Toluene	255	20.0	232.0	0	110	47	150	1.72	40	
1,2-Trans-Dichloroethylene	258	20.0	232.0	0	111	54	156	0.299	40	
1,1,2-Trichloroethane	260	10.0	232.0	0	112	52	150	5.10	40	
m-Dichlorobenzene	249	10.0	232.0	0	107	59	156	1.93	40	
o-Dichlorobenzene	251	10.0	232.0	0	108	18	190	1.36	40	
p-Dichlorobenzene	250	10.0	232.0	0	108	18	190	1.02	40	
Surr: 1,2-Dichloroethane-d4	1860		2000		93.1	72	119	0	0	
Surr: 4-Bromofluorobenzene	1920		2000		96.1	76	119	0	0	
Surr: Dibromofluoromethane	1970		2000		98.5	85	115	0	0	
Surr: Toluene-d8	1950		2000		97.5	81	120	0	0	

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** WC\_240821C

The QC data in batch 116875 applies to the following samples: 2408159-01C

Sample ID: <b>MB-116875</b>		Batch ID: <b>116875</b>		TestNo: <b>M4500-NH3-D</b>		Units: <b>mg/L</b>					
SampType: <b>MBLK</b>		Run ID: <b>WC_240821C</b>		Analysis Date: <b>8/21/2024 4:05:00 PM</b>		Prep Date: <b>8/21/2024</b>					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) <0.100 0.250

Sample ID: <b>LCS-116875</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.79 0.250 5.000 0 95.8 80 120

Sample ID: <b>LCSD-116875</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>LCSD</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.88 0.250 5.000 0 97.6 80 120 1.86 25

Sample ID: <b>2408159-01CMS</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>MS</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.72 0.250 5.000 0 94.4 80 120

Sample ID: <b>2408159-01CMSD</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.84 0.250 5.000 0 96.8 80 120 2.51 25

Sample ID: <b>2408211-13AMS</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>MS</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.56 0.250 5.000 0 91.2 80 120

Sample ID: <b>2408211-13AMSD</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.64 0.250 5.000 0 92.8 80 120 1.74 25

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC2\_240813B

The QC data in batch 116715 applies to the following samples: 2408159-01E

Sample ID: <b>MB-116715</b>		Batch ID: <b>116715</b>		TestNo: <b>E300</b>		Units: <b>mg/L</b>					
SampType: <b>MBLK</b>		Run ID: <b>IC2_240813B</b>		Analysis Date: <b>8/13/2024 3:37:58 PM</b>		Prep Date: <b>8/13/2024</b>					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	<0.300	1.00
Fluoride	<0.100	0.400
Nitrate-N	<0.100	0.500
Sulfate	<1.00	3.00

Sample ID: <b>LCS-116715</b>	Batch ID: <b>116715</b>	TestNo: <b>E300</b>	Units: <b>mg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>IC2_240813B</b>	Analysis Date: <b>8/13/2024 3:55:58 PM</b>	Prep Date: <b>8/13/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	9.87	1.00	10.00	0	98.7	90	110
Fluoride	4.12	0.400	4.000	0	103	90	110
Nitrate-N	4.95	0.500	5.000	0	99.1	90	110
Sulfate	29.7	3.00	30.00	0	99.0	90	110

Sample ID: <b>2408158-01AMS</b>	Batch ID: <b>116715</b>	TestNo: <b>E300</b>	Units: <b>mg/L</b>							
SampType: <b>MS</b>	Run ID: <b>IC2_240813B</b>	Analysis Date: <b>8/14/2024 3:08:25 AM</b>	Prep Date: <b>8/13/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	377	10.0	200.0	210.8	82.9	90	110			S
Fluoride	201	4.00	200.0	0	100	90	110			
Nitrate-N	54.9	5.00	45.16	10.20	98.9	90	110			
Sulfate	227	30.0	200.0	46.42	90.4	90	110			

Sample ID: <b>2408158-01AMSD</b>	Batch ID: <b>116715</b>	TestNo: <b>E300</b>	Units: <b>mg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>IC2_240813B</b>	Analysis Date: <b>8/14/2024 3:26:25 AM</b>	Prep Date: <b>8/13/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	377	10.0	200.0	210.8	82.9	90	110	0.005	20	S
Fluoride	201	4.00	200.0	0	100	90	110	0.085	20	
Nitrate-N	54.8	5.00	45.16	10.20	98.8	90	110	0.088	20	
Sulfate	227	30.0	200.0	46.42	90.3	90	110	0.047	20	

Sample ID: <b>2408159-01EMS</b>	Batch ID: <b>116715</b>	TestNo: <b>E300</b>	Units: <b>mg/L</b>							
SampType: <b>MS</b>	Run ID: <b>IC2_240813B</b>	Analysis Date: <b>8/14/2024 4:02:25 AM</b>	Prep Date: <b>8/13/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	369	10.0	200.0	191.9	88.8	90	110			S
Fluoride	209	4.00	200.0	0	104	90	110			
Nitrate-N	77.2	5.00	45.16	28.20	109	90	110			
Sulfate	287	30.0	200.0	85.21	101	90	110			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified



**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC2\_240813B

Sample ID: <b>2408159-01EMSD</b>	Batch ID: <b>116715</b>	TestNo: <b>E300</b>	Units: <b>mg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>IC2_240813B</b>	Analysis Date: <b>8/14/2024 4:20:25 AM</b>	Prep Date: <b>8/13/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	371	10.0	200.0	191.9	89.3	90	110	0.313	20	S
Fluoride	210	4.00	200.0	0	105	90	110	0.606	20	
Nitrate-N	77.5	5.00	45.16	28.20	109	90	110	0.394	20	
Sulfate	288	30.0	200.0	85.21	101	90	110	0.518	20	

Sample ID: <b>LCSD-116715</b>	Batch ID: <b>116715</b>	TestNo: <b>E300</b>	Units: <b>mg/L</b>							
SampType: <b>LCSD</b>	Run ID: <b>IC2_240813B</b>	Analysis Date: <b>8/14/2024 11:30:23 AM</b>	Prep Date: <b>8/13/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.48	1.00	10.00	0	94.8	90	110	4.00	20	
Fluoride	4.21	0.400	4.000	0	105	90	110	2.02	20	
Nitrate-N	4.78	0.500	5.000	0	95.6	90	110	3.57	20	
Sulfate	28.5	3.00	30.00	0	95.1	90	110	4.06	20	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** TITRATOR\_240816A

The QC data in batch 116783 applies to the following samples: 2408159-01E

Sample ID: <b>MB-116783</b>	Batch ID: <b>116783</b>	TestNo: <b>M2320 B</b>	Units: <b>mg/L @ pH 4.48</b>							
SampType: <b>MBLK</b>	Run ID: <b>TITRATOR_240816A</b>	Analysis Date: <b>8/16/2024 1:45:00 PM</b>	Prep Date: <b>8/16/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0
Alkalinity, Total (As CaCO3)	<10.0	20.0

Sample ID: <b>LCS-116783</b>	Batch ID: <b>116783</b>	TestNo: <b>M2320 B</b>	Units: <b>mg/L @ pH 4.53</b>							
SampType: <b>LCS</b>	Run ID: <b>TITRATOR_240816A</b>	Analysis Date: <b>8/16/2024 1:51:00 PM</b>	Prep Date: <b>8/16/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Alkalinity, Total (As CaCO3)	49.3	20.0	50.00	0	98.6	74	129
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Sample ID: <b>LCSD-116783</b>	Batch ID: <b>116783</b>	TestNo: <b>M2320 B</b>	Units: <b>mg/L @ pH 4.51</b>							
SampType: <b>LCSD</b>	Run ID: <b>TITRATOR_240816A</b>	Analysis Date: <b>8/16/2024 1:56:00 PM</b>	Prep Date: <b>8/16/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Alkalinity, Total (As CaCO3)	49.8	20.0	50.00	0	99.5	74	129	0.969	20
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Sample ID: <b>2408155-01D-DUP</b>	Batch ID: <b>116783</b>	TestNo: <b>M2320 B</b>	Units: <b>mg/L @ pH 4.52</b>							
SampType: <b>DUP</b>	Run ID: <b>TITRATOR_240816A</b>	Analysis Date: <b>8/16/2024 2:05:00 PM</b>	Prep Date: <b>8/16/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3)	98.1	20.0	0	99.10				1.01	20
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20
Alkalinity, Total (As CaCO3)	98.1	20.0	0	99.10				1.01	20

Sample ID: <b>2408168-01D-DUP</b>	Batch ID: <b>116783</b>	TestNo: <b>M2320 B</b>	Units: <b>mg/L @ pH 4.54</b>							
SampType: <b>DUP</b>	Run ID: <b>TITRATOR_240816A</b>	Analysis Date: <b>8/16/2024 3:11:00 PM</b>	Prep Date: <b>8/16/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3)	132	20.0	0	134.0				1.81	20
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20
Alkalinity, Total (As CaCO3)	132	20.0	0	134.0				1.81	20

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** UV/VIS\_2\_240814A

The QC data in batch 116727 applies to the following samples: 2408159-01E

Sample ID: <b>MB-116727</b>		Batch ID: <b>116727</b>		TestNo: <b>M3500-Cr B</b>		Units: <b>µg/L</b>					
SampType: <b>MBLK</b>		Run ID: <b>UV/VIS_2_240814A</b>		Analysis Date: <b>8/14/2024 11:17:00 AM</b>		Prep Date: <b>8/14/2024</b>					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium (Hex)		<3.00	3.00								
Chromium (Tri)		<2.00	3.00								N

Sample ID: <b>LCS-116727</b>	Batch ID: <b>116727</b>	TestNo: <b>M3500-Cr B</b>	Units: <b>µg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>UV/VIS_2_240814A</b>	Analysis Date: <b>8/14/2024 11:17:00 AM</b>	Prep Date: <b>8/14/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium (Hex)	98.7	3.00	100.0	0	98.7	85	115			

Sample ID: <b>LCSD-116727</b>	Batch ID: <b>116727</b>	TestNo: <b>M3500-Cr B</b>	Units: <b>µg/L</b>							
SampType: <b>LCSD</b>	Run ID: <b>UV/VIS_2_240814A</b>	Analysis Date: <b>8/14/2024 11:17:00 AM</b>	Prep Date: <b>8/14/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium (Hex)	107	3.00	100.0	0	107	85	115	7.74	15	

Sample ID: <b>2408159-01EMS</b>	Batch ID: <b>116727</b>	TestNo: <b>M3500-Cr B</b>	Units: <b>µg/L</b>							
SampType: <b>MS</b>	Run ID: <b>UV/VIS_2_240814A</b>	Analysis Date: <b>8/14/2024 11:25:00 AM</b>	Prep Date: <b>8/14/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium (Hex)	86.9	3.00	100.0	0	86.9	85	115			

Sample ID: <b>2408159-01EMSD</b>	Batch ID: <b>116727</b>	TestNo: <b>M3500-Cr B</b>	Units: <b>µg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>UV/VIS_2_240814A</b>	Analysis Date: <b>8/14/2024 11:25:00 AM</b>	Prep Date: <b>8/14/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium (Hex)	93.0	3.00	100.0	0	93.0	85	115	6.83	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** UV/VIS\_2\_240815D

The QC data in batch 116745 applies to the following samples: 2408159-01D

Sample ID: <b>MB-116745</b>	Batch ID: <b>116745</b>	TestNo: <b>M4500-CN E</b>	Units: <b>mg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>UV/VIS_2_240815D</b>	Analysis Date: <b>8/15/2024 4:09:00 PM</b>	Prep Date: <b>8/15/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Amenable to Chlorination	<0.0100	0.0200								
Cyanide, Total	<0.0100	0.0200								

Sample ID: <b>LCS-116745</b>	Batch ID: <b>116745</b>	TestNo: <b>M4500-CN E</b>	Units: <b>mg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>UV/VIS_2_240815D</b>	Analysis Date: <b>8/15/2024 4:09:00 PM</b>	Prep Date: <b>8/15/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	0.185	0.0200	0.2000	0	92.5	85	115			

Sample ID: 2408104-01AMS		Batch ID: 116745		TestNo: M4500-CN E		Units: mg/L				
SampType: MS		Run ID: UV/VIS_2_240815D		Analysis Date: 8/15/2024 4:10:00 PM		Prep Date: 8/15/2024				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	0.179	0.0200	0.2000	0	89.5	79	114			

Sample ID: 2408104-01AMSD		Batch ID: 116745		TestNo: M4500-CN E		Units: mg/L				
SampType: MSD		Run ID: UV/VIS_2_240815D		Analysis Date: 8/15/2024 4:11:00 PM		Prep Date: 8/15/2024				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	0.171	0.0200	0.2000	0	85.5	79	114	4.57	20	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** UV/VIS\_2\_240822A

The QC data in batch 116879 applies to the following samples: 2408159-01C

Sample ID: <b>MB-116879</b>	Batch ID: <b>116879</b>	TestNo: <b>M4500-P E</b>	Units: <b>mg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>UV/VIS_2_240822A</b>	Analysis Date: <b>8/22/2024 10:47:00 AM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Total Phosphorus (As P) <0.0600 0.0600

Sample ID: <b>LCS-116879</b>	Batch ID: <b>116879</b>	TestNo: <b>M4500-P E</b>	Units: <b>mg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>UV/VIS_2_240822A</b>	Analysis Date: <b>8/22/2024 10:48:00 AM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Total Phosphorus (As P) 0.513 0.0600 0.5000 0 103 80 120

Sample ID: <b>LCSD-116879</b>	Batch ID: <b>116879</b>	TestNo: <b>M4500-P E</b>	Units: <b>mg/L</b>							
SampType: <b>LCSD</b>	Run ID: <b>UV/VIS_2_240822A</b>	Analysis Date: <b>8/22/2024 10:49:00 AM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Total Phosphorus (As P) 0.508 0.0600 0.5000 0 102 80 120 0.979 20

Sample ID: <b>2408167-16AMS</b>	Batch ID: <b>116879</b>	TestNo: <b>M4500-P E</b>	Units: <b>mg/L</b>							
SampType: <b>MS</b>	Run ID: <b>UV/VIS_2_240822A</b>	Analysis Date: <b>8/22/2024 11:04:00 AM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Total Phosphorus (As P) 0.575 0.0600 0.5000 0 115 80 120

Sample ID: <b>2408167-16AMSD</b>	Batch ID: <b>116879</b>	TestNo: <b>M4500-P E</b>	Units: <b>mg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>UV/VIS_2_240822A</b>	Analysis Date: <b>8/22/2024 11:05:00 AM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Total Phosphorus (As P) 0.584 0.0600 0.5000 0 117 80 120 1.55 20

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** WC\_240814B

The QC data in batch 116734 applies to the following samples: 2408159-01E

Sample ID: <b>MB-116734</b>	Batch ID: <b>116734</b>	TestNo: <b>M2540C</b>	Units: <b>mg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>WC_240814B</b>	Analysis Date: <b>8/14/2024 4:40:00 PM</b>	Prep Date: <b>8/14/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filtera <10.0 10.0

Sample ID: <b>LCS-116734</b>	Batch ID: <b>116734</b>	TestNo: <b>M2540C</b>	Units: <b>mg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>WC_240814B</b>	Analysis Date: <b>8/14/2024 4:40:00 PM</b>	Prep Date: <b>8/14/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filtera 753 10.0 745.6 0 101 90 113

Sample ID: <b>2408143-01F-DUP</b>	Batch ID: <b>116734</b>	TestNo: <b>M2540C</b>	Units: <b>mg/L</b>							
SampType: <b>DUP</b>	Run ID: <b>WC_240814B</b>	Analysis Date: <b>8/14/2024 4:40:00 PM</b>	Prep Date: <b>8/14/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filtera 2940 50.0 0 2990 1.69 5

Sample ID: <b>2408154-01F-DUP</b>	Batch ID: <b>116734</b>	TestNo: <b>M2540C</b>	Units: <b>mg/L</b>							
SampType: <b>DUP</b>	Run ID: <b>WC_240814B</b>	Analysis Date: <b>8/14/2024 4:40:00 PM</b>	Prep Date: <b>8/14/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filtera 2440 50.0 0 2410 1.24 5

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** WC\_240815A

The QC data in batch 116758 applies to the following samples: 2408159-01E

Sample ID: <b>MB-116758</b>	Batch ID: <b>116758</b>	TestNo: <b>M2510 B</b>	Units: <b>µmhos/cm @25°C</b>							
SampType: <b>MBLK</b>	Run ID: <b>WC_240815A</b>	Analysis Date: <b>8/15/2024 2:30:00 PM</b>	Prep Date: <b>8/15/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Specific Conductance	<10.0	10.0
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Sample ID: <b>LCS-116758</b>	Batch ID: <b>116758</b>	TestNo: <b>M2510 B</b>	Units: <b>µmhos/cm @25°C</b>							
SampType: <b>LCS</b>	Run ID: <b>WC_240815A</b>	Analysis Date: <b>8/15/2024 2:30:00 PM</b>	Prep Date: <b>8/15/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Specific Conductance	1400	10.0	1413	0	98.9	95	105
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Sample ID: <b>2408159-01E-DUP</b>	Batch ID: <b>116758</b>	TestNo: <b>M2510 B</b>	Units: <b>µmhos/cm @25°C</b>							
SampType: <b>DUP</b>	Run ID: <b>WC_240815A</b>	Analysis Date: <b>8/15/2024 2:30:00 PM</b>	Prep Date: <b>8/15/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Specific Conductance	1090	10.0	0	1088				0.275	2
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**Qualifiers:**

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL

DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAP certified

**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** WC\_240820C

The QC data in batch 116822 applies to the following samples: 2408159-01F

Sample ID: <b>MB-116822</b>	Batch ID: <b>116822</b>	TestNo: <b>M2540D</b>	Units: <b>mg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>WC_240820C</b>	Analysis Date: <b>8/20/2024 10:05:00 AM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Suspended Solids (Residue, Non-Filter) <2.50 2.50

Sample ID: <b>LCS-116822</b>	Batch ID: <b>116822</b>	TestNo: <b>M2540D</b>	Units: <b>mg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>WC_240820C</b>	Analysis Date: <b>8/20/2024 10:05:00 AM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Suspended Solids (Residue, Non-Filter) 90.0 25.0 100.0 0 90.0 85 115

Sample ID: <b>LCSD-116822</b>	Batch ID: <b>116822</b>	TestNo: <b>M2540D</b>	Units: <b>mg/L</b>							
SampType: <b>LCSD</b>	Run ID: <b>WC_240820C</b>	Analysis Date: <b>8/20/2024 10:05:00 AM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Suspended Solids (Residue, Non-Filter) 92.0 25.0 100.0 0 92.0 85 115 2.20 5

Sample ID: <b>2408168-01E-DUP</b>	Batch ID: <b>116822</b>	TestNo: <b>M2540D</b>	Units: <b>mg/L</b>							
SampType: <b>DUP</b>	Run ID: <b>WC_240820C</b>	Analysis Date: <b>8/20/2024 10:05:00 AM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Suspended Solids (Residue, Non-Filter) 20.9 5.56 0 20.00 4.35 5

Sample ID: <b>2408168-02E-DUP</b>	Batch ID: <b>116822</b>	TestNo: <b>M2540D</b>	Units: <b>mg/L</b>							
SampType: <b>DUP</b>	Run ID: <b>WC_240820C</b>	Analysis Date: <b>8/20/2024 10:05:00 AM</b>	Prep Date: <b>8/20/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Suspended Solids (Residue, Non-Filter) 151 10.0 0 145.2 4.05 5

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified



**CLIENT:** Brazos River Authority  
**Work Order:** 2408159  
**Project:** Hutto South Permit Renewal

## ANALYTICAL QC SUMMARY REPORT

**RunID:** WC\_240821C

The QC data in batch 116875 applies to the following samples: 2408159-01C

Sample ID: <b>MB-116875</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>MBLK</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) <0.100 0.250

Sample ID: <b>LCS-116875</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>LCS</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.79 0.250 5.000 0 95.8 80 120

Sample ID: <b>LCSD-116875</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>LCSD</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.88 0.250 5.000 0 97.6 80 120 1.86 25

Sample ID: <b>2408159-01CMS</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>MS</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.72 0.250 5.000 0 94.4 80 120

Sample ID: <b>2408159-01CMSD</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.84 0.250 5.000 0 96.8 80 120 2.51 25

Sample ID: <b>2408211-13AMS</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>MS</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.56 0.250 5.000 0 91.2 80 120

Sample ID: <b>2408211-13AMSD</b>	Batch ID: <b>116875</b>	TestNo: <b>M4500-NH3-D</b>	Units: <b>mg/L</b>							
SampType: <b>MSD</b>	Run ID: <b>WC_240821C</b>	Analysis Date: <b>8/21/2024 4:05:00 PM</b>	Prep Date: <b>8/21/2024</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Ammonia-N (As N) 4.64 0.250 5.000 0 92.8 80 120 1.74 25

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

*Project*  
**1114616**

## DHL1-C

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

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7:10

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Email: [Kilgore.ProjectManagement@spillabs.com](mailto:Kilgore.ProjectManagement@spillabs.com)



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*Project*  
**1114616**

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 2300 Double Creek Dr  
 Round Rock, TX 78664

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This report consists of this Table of Contents and the following pages:

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<b>Total Pages:</b>		<b>34</b>

## LABORATORY DATA PACKAGE COVER PAGE

Project  
1114616

001 OF EFF Grab

This data package consists of:

- ☒ This signature page, the laboratory review checklist, and the following reportable data:
- ☒ R1 Field chain-of-custody documentation;
- ☒ R2 Sample identification cross-reference;
- ☒ R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- ☒ R4 Surrogate recovery data including: (R4 - R8: See QC Report)
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- ☒ R5 Test reports/summary forms for blank samples;
- ☒ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- ☒ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- ☒ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- ☒ R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix; See Results Summary
- ☒ R10 Other problems or anomalies.
- ☒ The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

*Bill Peery*

Bill Peery (WJP)

VP Technical Services

8/28/2024

Name

Signature

Official Title

Date

Email: [Kilgore.ProjectManagement@spllabs.com](mailto:Kilgore.ProjectManagement@spllabs.com)



Central TX Region: 8101 Cameron Rd - Ste 305 Austin TX 78754

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SAMPLE CROSS REFERENCE

Project  
1114616

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Printed 8/28/2024 Page 1 of 1  
001 OF EFF Grab

Sample	Sample ID	Taken	Time	Received
2325897	001 OF EFF Grab	08/13/2024	11:50:00	08/15/2024

Bottle 01 Client supplied HCl Clean Metals Bottle  
Bottle 02 Client Supplied Amber Glass  
Bottle 03 Client supplied H2SO4 Amber Glass  
Bottle 04 Client supplied H2SO4 plastic  
Bottle 05 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1133676) Volume: 20.00000 mL <== Derived from 04 ( 20 ml )  
Bottle 06 Prepared Bottle: Phenol TRAACS Autosampler Vial (Batch 1133962) Volume: 6.00000 mL <== Derived from 03 ( 6 ml )  
Bottle 07 Prepared Bottle: Phenol TRAACS Autosampler Vial (Batch 1133962) Volume: 6.00000 mL <== Derived from 03 ( 6 ml )  
Bottle 08 Prepared Bottle: Phenol TRAACS Autosampler Vial (Batch 1133962) Volume: 6.00000 mL <== Derived from 03 ( 6 ml )  
Bottle 09 Prepared Bottle: 2 mL Autosampler Vial (Batch 1134073) Volume: 10.00000 mL <== Derived from 02 ( 520 ml )  
Bottle 10 Prepared Bottle: Mercury Preparation for Metals (Batch 1134836) Volume: 50.00000 mL <== Derived from 01 ( 47 ml )  
Bottle 11 Prepared Bottle: Mercury Preparation for Metals (Batch 1134836) Volume: 50.00000 mL <== Derived from 01 ( 47 ml )  
Bottle 12 Prepared Bottle: Mercury Preparation for Metals (Batch 1134836) Volume: 50.00000 mL <== Derived from 01 ( 47 ml )

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 615	09	1134073	08/19/2024	1135392	08/23/2024
EPA 245.7 2	10	1134836	08/22/2024	1134931	08/22/2024
EPA 420.4 1	06	1133962	08/19/2024	1134626	08/21/2024
EPA 351.2 2	05	1133676	08/16/2024	1134012	08/19/2024

Email: Kilgore.ProjectManagement@spllabs.com

SAMPLE PREPARATION

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Default

Project

1114616

		Prep Set #	1133676	08/16/2024		
Analytical Set #	1134012	EPA 351.2 2			08/19/2024	
		Sample	Sample ID			Bottle
		2325897	001 OF EFF Grab			05

		Prep Set #	1133962	08/19/2024		
Analytical Set #	1134626	EPA 420.4 1			08/21/2024	
		Sample	Sample ID			Bottle
		2325897	001 OF EFF Grab			06

		Prep Set #	1134073	08/19/2024		
Analytical Set #	1135392	EPA 615			08/23/2024	
		Sample	Sample ID			Bottle
		2325897	001 OF EFF Grab			09

Prep Set #

1134836

08/22/2024



SAMPLE PREPARATION

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Default

Project

1114616

Analytical Set #

1134931

EPA 245.7 2

08/22/2024

Sample	Sample ID	Bottle
2325897	001 OF EFF Grab	10



# HOLDING TIME COMPLIANCE

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Project  
1114616

001 OF EFF Grab

Name	Method	Taken:	Received	Analyzed	Hold	Elapsed
	2325897	8/13/24 11:50	08/15/2024			
Herbicides by GC	EPA 615		8/23/24 15:50		45.00	10.00
Esterification of Sample	EPA 615		8/19/24 13:00		7.00	6.00
Mercury, Total (low level)	EPA 245.7 2		8/22/24 16:32		90.00	9.00
Low Level Mercury Liquid Metals	EPA 245.7 2		8/22/24 11:30		90.00	8.00
Phenol Distillation	EPA 420.4 1		8/19/24 8:56		28.00	5.00
Phenolics, Total Recoverable	EPA 420.4 1		8/21/24 10:31		28.00	7.00
TKN Block Digestion	EPA 351.2, Rev 2.0		8/16/24 7:23		28.00	2.00
Total Kjeldahl Nitrogen	EPA 351.2 2		8/19/24 8:24		28.00	5.00





## DHL1-C

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DHL Analytical - SPL  
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Project  
**1114616**

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## RESULTS

### Sample Results

**2325897** 001 OF EFF Grab

Received: 08/15/2024

Non-Potable Water

Collected by: Client  
Taken: 08/13/2024

DHL Analytical - SPL  
11:50:00

PO:

EPA 245.7 2 Prepared: 1134836 08/22/2024 11:30:00 Analyzed 1134931 08/22/2024 16:32:00 MP1

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Mercury, Total (low level)	4.55	ng/L	5.32	JP	7439-97-6	10

EPA 351.2 2 Prepared: 1133676 08/16/2024 07:23:45 Analyzed 1134012 08/19/2024 08:24:00 AMB

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Total Kjeldahl Nitrogen	<0.00712	mg/L	0.00712		7727-37-9	05

EPA 420.4 1 Prepared: 1133962 08/19/2024 08:56:50 Analyzed 1134626 08/21/2024 10:31:00 AMB

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Phenolics, Total Recoverable	0.018	mg/L	0.005			06

EPA 615 Prepared: 1134073 08/19/2024 13:00:00 Analyzed 1135392 08/23/2024 15:50:00 KAP

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	2,4 Dichlorophenoxyacetic acid	<0.962	ug/L	0.962		94-75-7	09
NELAC	2,4,5-TP (Silvex)	<0.577	ug/L	0.577		93-72-1	09

### Sample Preparation

**2325897** 001 OF EFF Grab

Received: 08/15/2024

08/13/2024

Prepared: 08/16/2024 08:50:45 Calculated 08/16/2024 08:50:45 CAL



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## DHL1-C

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DHL Analytical - SPL  
 John Dupont  
 2300 Double Creek Dr  
 Round Rock, TX 78664

Project  
**1114616**

Printed: 08/28/2024

**2325897** 001 OF EFF Grab

Received: 08/15/2024

08/13/2024

		Prepared:	08/16/2024	08:50:45	Calculated	08/16/2024	08:50:45	CAL
z	Environmental Fee (per Project)	Verified						
	EPA 245.7 2	Prepared:	1134836	08/22/2024	11:30:00	Analyzed	1134836	08/22/2024 11:30:00 MP1
NELAC	Low Level Mercury Liquid Metals	50/47	ml		01			
	EPA 351.2, Rev 2.0	Prepared:	1133676	08/16/2024	07:23:45	Analyzed	1133676	08/16/2024 07:23:45 MEG
NELAC	TKN Block Digestion	20/20	ml		04			
	EPA 420.4 1	Prepared:	1133962	08/19/2024	08:56:50	Analyzed	1133962	08/19/2024 08:56:50 SRJ
NELAC	Phenol Distillation	6/6	ml		03			
	EPA 615	Prepared:	1134073	08/19/2024	13:00:00	Analyzed	1134073	08/19/2024 13:00:00 CRS
NELAC	Esterification of Sample	10/520	ml		02			
	EPA 615	Prepared:	1134073	08/19/2024	13:00:00	Analyzed	1135392	08/23/2024 15:50:00 KAP
NELAC	Herbicides by GC	Entered						09



## DHL1-C

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DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Project  
**1114616**

Printed: 08/28/2024

### Qualifiers:

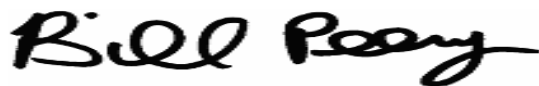
J - Analyte detected below quantitation limit      P - Spike recovery outside control limits due to matrix effects.

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation  
z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.  
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services



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1114616

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001 OF EFF Grab

## RESULTS

## DHL1

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

CAS	Parameter	Results	MDL	SDL	ML	MLAdj	Flag	Units	Target	Bottle	Dilute
Non-Potable Water		Distillations									EPA 351.2 2
2325897	001 OF EFF Grab										
			Collection:	08/13/2024		11:50:00		Client		Received:	08/15/2024
Prepared:			1133676								
			Analyzed:		1134012		8/19/24	08:24:00			
7727-37-9	Total Kjeldahl Nitrogen		ND	0.00712	0.00712	0.050	0.050	mg/L	0.100	05	1.00
Non-Potable Water		Distillations									EPA 420.4 1
2325897	001 OF EFF Grab										
			Collection:	08/13/2024		11:50:00		Client		Received:	08/15/2024
Prepared:			1133962								
			Analyzed:		1134626		8/21/24	10:31:00			
Phenolics, Total Recoverable			0.018	0.003	0.003	0.005	0.005	mg/L	0.005	06	1.00

SDL is Sample Detection Limit and is the adjusted MDL (sample specific dilutions, dry weight)  
 MQLADJ is the Adjusted Method Quantitation Limit (dilutions, dry weight)

Email: [Kilgore.ProjectManagement@sp1labs.com](mailto:Kilgore.ProjectManagement@sp1labs.com)

RESULTS

Project

1114616

Printed 08/28/2024

001 OF EFF Grab

DHL1

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Qualifiers:

J - Analyte detected below quantitation limit      P - Spike recovery outside control limits due to matrix effects.

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation  
z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

Bill Peery



Bill Peery, MS, VP Technical Services

Email: Kilgore.ProjectManagement@spllabs.com



RESULTS

Project

1114616

Printed 08/28/2024

001 OF EFF Grab

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

DHL1

CAS	Parameter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute	
Non-Potable Water		Metals		EPA 245.7 2								
2325897	001 OF EFF Grab											
Collection:			08/13/2024	11:50:00		Client		Received:		08/15/2024		
Prepared:		1134836										
			Analyzed:		1134931		8/22/24	16:32:00				
7439-97-6	Mercury, Total (low level)		4.55	1.20	1.28	5.00	5.32	JP	ng/L	5.00	10	1.06

MDL is Method Detection Limit (40 CFR 136 Appendix B)

MQL is the Method Quantitation Limit and corresponds to a low standard

Qualifiers:

J - Analyte detected below quantitation limit

P - Spike recovery outside control limits due to matrix effects.

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation

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These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

SDL is Sample Detection Limit and is the adjusted MDL (sample specific dilutions, dry weight)

MQLADJ is the Adjusted Method Quantitation Limit (dilutions, dry weight)

Email: Kilgore.ProjectManagement@spllabs.com

2600 Dudley Rd. Kilgore, Texas 75662  
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380  
Office: 903-984-0551 \* Fax: 903-984-5914



Page 2 of 2

Project  
1114616

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001 OF EFF Grab

## RESULTS

DHL1

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Bill Peery, MS, VP Technical Services



Email: [Kilgore.ProjectManagement@spllabs.com](mailto:Kilgore.ProjectManagement@spllabs.com)



RESULTS

Project

1114616

Printed 08/28/2024

001 OF EFF Grab

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

DHL1

CAS	Parameter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
Non-Potable Water		Organics								EPA 615	
2325897	001 OF EFF Grab										
Collection:			08/13/2024	11:50:00		Client		Received:		08/15/2024	
Prepared:		1134073									
Analyzed:			1135392		8/23/24		15:50:00				
94-75-7	2,4 Dichlorophenoxyacetic acid		ND	0.159	0.306	0.500	0.962	ug/L	0.700	09	1.92
93-72-1	2,4,5-TP (Silvex)		ND	0.0893	0.172	0.300	0.577	ug/L	0.300	09	1.92

MDL is Method Detection Limit (40 CFR 136 Appendix B)

MQL is the Method Quantitation Limit and corresponds to a low standard

Qualifiers:

J - Analyte detected below quantitation limit

P - Spike recovery outside control limits due to matrix effects.

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation

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These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

SDL is Sample Detection Limit and is the adjusted MDL (sample specific dilutions, dry weight)

MQLADJ is the Adjusted Method Quantitation Limit (dilutions, dry weight)

Email: Kilgore.ProjectManagement@spllabs.com



Project  
**1114616**

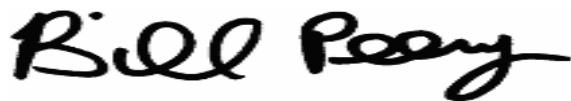
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001 OF EFF Grab

## RESULTS

DHL1

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664



Bill Peery, MS, VP Technical Services



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## QC GROUPS

08/28/2024

Page 1 of 1

DHL Analytical - SPL  
 John Dupont  
 2300 Double Creek Dr  
 Round Rock, TX 78664

Project  
 1114616

	<i>Test</i>	<i>QCgroup</i>	<i>Analyzed</i>	
	TKDL	1,133,676	08/16/2024	
	ESRL	1,134,073	08/19/2024	
	PhDL	1,133,962	08/19/2024	
	245l	1,134,836	08/22/2024	
1545	HP 5890A - ECD5890 w/autosampler	HP		3336A57718
	!HER	1,135,392	08/23/2024	
6581	Astoria 2 Autoanalyzer	Astoria-Pacific		200343
	Phna	1,134,626	08/21/2024	
7051	Astoria2 Autoanalyzer	Astoria		200354
	TKN	1,134,012	08/19/2024	
7472	Mercury analyzer (Low Level)	Teledyne Leeman labs		US23192001
	*Hgl	1,134,931	08/22/2024	

Email: Kilgore.ProjectManagement@spllabs.com



Central TX Region: 8101 Cameron Rd - Ste 305 Austin TX 78754

Report Page 17 of 36

# QUALITY CONTROL



Page 1 of 3

## DHL1-C

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Project  
1114616

Printed 08/28/2024

Analytical Set 1134012

EPA 351.2 2

AWRL/LOQ C										
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>				
Total Kjeldahl Nitrogen	0.227	0.200	mg/L	114	75.0 - 125	126672042				
Blank										
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>				
Total Kjeldahl Nitrogen	1133676	ND	0.00712	0.050	mg/L	126672039				
CCV										
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>				
Total Kjeldahl Nitrogen	5.12	5.00	mg/L	102	90.0 - 110	126672013				
Total Kjeldahl Nitrogen	5.13	5.00	mg/L	103	90.0 - 110	126672022				
Total Kjeldahl Nitrogen	5.16	5.00	mg/L	103	90.0 - 110	126672033				
Total Kjeldahl Nitrogen	5.18	5.00	mg/L	104	90.0 - 110	126672044				
Total Kjeldahl Nitrogen	5.17	5.00	mg/L	103	90.0 - 110	126672053				
Total Kjeldahl Nitrogen	5.17	5.00	mg/L	103	90.0 - 110	126672062				
Total Kjeldahl Nitrogen	5.16	5.00	mg/L	103	90.0 - 110	126672065				
Duplicate										
<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>				
Total Kjeldahl Nitrogen	2325597	0.543	0.527	mg/L	2.99	20.0				
Total Kjeldahl Nitrogen	2325813	ND	ND	mg/L		20.0				
ICV										
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>				
Total Kjeldahl Nitrogen	5.21	5.00	mg/L	104	90.0 - 110	126672012				
LCS Dup										
<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Total Kjeldahl Nitrogen	1133676	5.32	4.88	5.00	90.0 - 110	106	97.6	mg/L	8.63	20.0
Mat. Spike										
<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>		
Total Kjeldahl Nitrogen	2325597	5.53	0.527	5.00	mg/L	100	80.0 - 120	126672046		
Total Kjeldahl Nitrogen	2325813	-0.069	ND	5.00	mg/L	0	80.0 - 120	126672049	*	

Analytical Set 1134626

EPA 420.4 1

Blank						
Parameter	PrepSet	Reading	MDL	MQL	Units	File
Phenolics, Total Recoverable	1133962	ND	0.003	0.005	mg/L	126685547
CCV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
Phenolics, Total Recoverable	0.202	0.200	mg/L	101	90.0 - 110	126685546
Phenolics, Total Recoverable	0.193	0.200	mg/L	96.5	90.0 - 110	126685555
Phenolics, Total Recoverable	0.194	0.200	mg/L	97.0	90.0 - 110	126685562

Email: [Kilgore.ProjectManagement@spllabs.com](mailto:Kilgore.ProjectManagement@spllabs.com)



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# QUALITY CONTROL



Page 2 of 3

## DHL1-C

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Project  
1114616

Printed 08/28/2024

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Phenolics, Total Recoverable	2325897	0.018	0.018	mg/L	0	20.0

### ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phenolics, Total Recoverable	0.204	0.200	mg/L	102	90.0 - 110	126685545

### LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Phenolics, Total Recoverable	1133962	0.219	0.215	0.200	90.0 - 110	110	108	mg/L	1.84	20.0

### Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Phenolics, Total Recoverable	2325897	0.216	0.018	0.200	mg/L	99.0	90.0 - 110	126685552

Analytical Set

1134931

EPA 245.7 2

### Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Mercury, Total (low level)	1134836	ND	1.20	5.00	ng/L	126691244

### CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Mercury, Total (low level)	1134836	3.09	1.20	5.00	ng/L	126691251
Mercury, Total (low level)	1134931	3.23	1.20	5.00	ng/L	126691261
Mercury, Total (low level)	1134931	2.79	1.20	5.00	ng/L	126691265

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total (low level)	26.7	25.0	ng/L	107	76.0 - 113	126691214
Mercury, Total (low level)	22.1	25.0	ng/L	88.4	76.0 - 113	126691226
Mercury, Total (low level)	25.9	25.0	ng/L	104	76.0 - 113	126691238
Mercury, Total (low level)	26.9	25.0	ng/L	108	76.0 - 113	126691250
Mercury, Total (low level)	26.1	25.0	ng/L	104	76.0 - 113	126691260
Mercury, Total (low level)	19.5	25.0	ng/L	78.0	76.0 - 113	126691264

### ICL

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total (low level)	50.912	50.0	ng/L	102	90.0 - 110	126691212

### ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total (low level)	27.0	25.0	ng/L	108	90.0 - 110	126691213

### LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Mercury, Total (low level)	1134836	20.0	22.9	25.0	76.0 - 115	80.0	91.6	ng/L	13.5	50.0
Mercury, Total (low level)	1134931	23.4	24.7	25.0	76.0 - 115	93.6	98.8	ng/L	5.41	50.0

Email: [Kilgore.ProjectManagement@spllabs.com](mailto:Kilgore.ProjectManagement@spllabs.com)



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# QUALITY CONTROL



## DHL1-C

DHL Analytical - SPL  
John Dupont  
2300 Double Creek Dr  
Round Rock, TX 78664

Page 3 of 3

Project  
**1114616**

Printed 08/28/2024

MSD											
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Mercury, Total (low level)	2325897	19.5	21.4	4.55	26.6	63.0 - 111	56.2 *	63.3	ng/L	11.9	18.0

Analytical Set

1135392

EPA 615

Blank							File
Parameter	PrepSet	Reading	MDL	MQL	Units		
2,4 Dichlorophenoxyacetic acid	1134073	ND	0.159	0.500	ug/L		126704291
2,4,5-TP (Silvex)	1134073	0.0962	0.0893	0.300	ug/L		126704291

CCV							File
Parameter	Reading	Known	Units	Recover%	Limits%		
2,4 Dichlorophenoxyacetic acid	156	150	ug/L	104	80.0 - 115		126704290
2,4 Dichlorophenoxyacetic acid	156	150	ug/L	104	80.0 - 115		126704297
2,4,5-TP (Silvex)	162	150	ug/L	108	80.0 - 115		126704290
2,4,5-TP (Silvex)	162	150	ug/L	108	80.0 - 115		126704297

LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
2,4 Dichlorophenoxyacetic acid	1134073	0.444	0.538	1.00	0.100 - 319	44.4	53.8	ug/L	19.1	30.0
2,4,5-TP (Silvex)	1134073	0.541	0.671	1.00	0.100 - 244	54.1	67.1	ug/L	21.5	30.0

Surrogate								
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4-Dichlorophenylacetic Acid		CCV	174	200	ug/L	87.0	0.100 - 313	126704290
2,4-Dichlorophenylacetic Acid		CCV	180	200	ug/L	90.0	0.100 - 313	126704297
2,4-Dichlorophenylacetic Acid	1134073	Blank	97.3	200	ug/L	48.6	0.100 - 313	126704291
2,4-Dichlorophenylacetic Acid	1134073	LCS	86.2	200	ug/L	43.1	0.100 - 313	126704292
2,4-Dichlorophenylacetic Acid	1134073	LCS Dup	102	200	ug/L	51.0	0.100 - 313	126704293
2,4-Dichlorophenylacetic Acid	2325897	Unknown	1.91	3.85	ug/L	49.6	0.100 - 313	126704296

\* Out RPD is Relative Percent Difference:  $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent:  $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); ICV - Initial Calibration Verification; LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); AWRL/LOQ C - Ambient Water Reporting Limit/LOQ Check Std; CCB - Continuing Calibration Blank; MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. \*\*ANSI/ASQC E4 1994 Ref #4 TRADE QA Resources Guide.)

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Report Page 20 of 36

DHL Analytical, Inc.  
2300 Double Creek Drive  
Round Rock, TX 78664

TEL: (512) 388-8222

FAX:

Work Order: 2408159

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

**Subcontractor:**

SPL Laboratory Kilgore  
2600 Dudley Rd  
Kilgore, TX 75662

TEL: (903) 984-0551  
FAX:  
Acct #:

2325897

13-Aug-24

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests			
					Hg-LoLevel E245.7	PHENOL E420.1	Herb_W E615	TKN M4500-NH3-D
001 Outfall Effluent Grab	Aqueous	01L	08/13/24 11:50 AM	500AMGU			2	
001 Outfall Effluent Grab	Aqueous	01M	08/13/24 11:50 AM	250HDPH2SO4				1
001 Outfall Effluent Grab	Aqueous	01N	08/13/24 11:50 AM	500GHCL	1			
001 Outfall Effluent Grab	Aqueous	01P	08/13/24 11:50 AM	250GAM-H2SO4		2		

**General Comments:**

Please analyze these samples with a Standard Turnaround Time.  
Quality Control Package Needed: Standard - SEND PDF & Excel EDD Please  
EMAIL report to both cac@dhlanalytical.com & dupont@dhlanalytical.com  
Call John DuPont if you have questions.

Date/Time		Date/Time	
Relinquished by:	<i>g Munderz</i>	8/13/24 17:00	Received by: <i>VP</i>
Relinquished by:	<i>VP</i>	8/13/24 10:00	Received by: <i>Chutwood</i>
			8/13/24 10:30

1  
2  
3  
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5  
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8  
9  
10  
11

2 of 4

1114616 CoC Print Group 001 of 001

SEL List for E615

Rpt	T	Analyte	Synonym	MDL	PQL
<input checked="" type="checkbox"/>	A	2,4-D		0.01	0.3
<input checked="" type="checkbox"/>	A	2,4,5-TP (Silvex)		0.01	0.3

1114616 CoC Print Group 001 of 001

1Z970R400325564257  
4257  
FDR  
S: 888888  
1: 10  
75662  
DUDLEY RD

LOGIN  
512388222  
DHI ANALYTICAL  
2300 DOUBLE CREEK DR  
ROUND ROCK TX 78664

SHIP TO:  
LOGIN  
9039840551  
ANA-LAB  
2600 DUDLEY RD  
KILGORE TX 75662

30 LBS 1 OF 1

TX 756 0-32

UPS GROUND  
TRACKING #: 1Z 970 R40 03 2556 4257

8/15 1040 RT  
BILLING: Date Time Tech  
Temp: 3.8 / 3.1 C  
Therm#: 6444 Corr Fact: -0.7 C

PD-6 Door- 0205 TX 756 0-32  
MLNZ900756 TX 75662

1Z970R400325564257  
4753246 Aug 14 09:55:03 2024 HIPPS 24.3.1 US 7597 D



Appendix A:		Laboratory Review Checklist: Reportable Data					
Laboratory Name:		SPL Kilgore		LRC Date:		08/28/2024	
Project Name:		Default		Laboratory Job (Project) Number:		1114616	
Reviewer Name:		Bill Peery (WJP)		PrepSet:		1133676 QCgroup: 1134012	
#	A	Description	Yes	No	NA	NR	ER#
R01	OI	<b>Chain-of-Custody (C-O-C)</b>					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?				X	1
		Were all departures from standard conditions described in the exception report?	X				
R02	OI	<b>Sample and Quality Control (QC) Identification</b>					
		Are all field sample ID numbers cross referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R03	OI	<b>Test Reports</b>					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample quantitation limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		If required for the project, tentatively identified compounds reported?			X		
R04	O	<b>Surrogate Recovery Data</b>					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R05	OI	<b>Test Reports/Summary Forms for Blank Samples</b>					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were blank concentrations < MQL?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
R06	OI	<b>Laboratory Control Samples (LCS)</b>					
		Were all chemicals of concern included in the LCS?			X		
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			X		
		Were LCSs analyzed at the required frequency?			X		
		Were LCS (and LCS duplicate, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the chemicals of concern at the MDL used to calculate the SQLs?	X				
		Was the LCS duplicate relative percent difference within QC limits?	X				
R07		<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?			X		
R08	OI	<b>Analytical Duplicate Data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R09	OI	<b>Method Quantitation Limits (MQLs)</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	<b>Other Problems/Anomalies</b>					
		Are all known problems/anomalies/special condition noted in this LRC and ER?	X				
		Were all necessary corrective actions preformed for the reported data?	X				
		Was applicable and available technology used to lower the SQL and minimize the matrix interference effects on the sample results?	X				

Appendix A:		Laboratory Review Checklist: Reportable Data					
Laboratory Name: SPL Kilgore		LRC Date: 08/28/2024					
Project Name: Default		Laboratory Job (Project) Number: 1114616					
Reviewer Name: Bill Peery (WJP)		PrepSet: 1133676 QCgroup: 1134012					
#	A	Description	Yes	No	NA	NR	ER#
S01	OI	<b>Initial Calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S02	OI	<b>Initial and Continuing Calibration Verification (ICCV and CCV) and Continuing Calibration</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MQL?			X		
S03	O	<b>Mass Spectral Tuning</b>					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S04	O	<b>Internal Standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?			X		
S05	OI	<b>Raw Data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section . . .)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S06	O	<b>Dual Column Confirmation</b>					
		Did dual column confirmation results meet the method-required QC?			X		
S07	O	<b>Tentatively Identified Compounds (TICs)</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S08	I	<b>Interference Check Sample (ICS) Results</b>					
		Were percent recoveries within method QC limits?			X		
S09	I	<b>Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	<b>Method Detection Limit (MDL) Studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of detectability check samples?	X				
S11	OI	<b>Proficiency Test Reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards Documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	IO	<b>Compound/Analyte Identification Procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of Analyst Competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC Section 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/Validation Documentation Methods (NELAC Chapter 5 or ISO/IEC Section 5)</b>					
		Are all the methods used to generate the data documented, verified and validated, where applicable?	X				
S16	OI	<b>Laboratory Standard Operating Procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	X				

- Items identified by the letter "R" must be included on the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention
- O = organic analyses; I = ionorganic analyses (and general chemistry, when applicable);
- N/A = Not applicable;
- NR = Not reviewed
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A:		Laboratory Review Checklist: Reportable Data					
Laboratory Name: SPL Kilgore		LRC Date: 08/28/2024					
Project Name: Default		Laboratory Job (Project) Number: 1114616					
Reviewer Name: Bill Peery (WJP)		PrepSet: 1133962 QCgroup: 1134626					
#	A	Description	Yes	No	NA	NR	ER#
R01	OI	<b>Chain-of-Custody (C-O-C)</b>					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?				X	1
		Were all departures from standard conditions described in the exception report?	X				
R02	OI	<b>Sample and Quality Control (QC) Identification</b>					
		Are all field sample ID numbers cross referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R03	OI	<b>Test Reports</b>					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample quantitation limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		If required for the project, tentatively identified compounds reported?			X		
R04	O	<b>Surrogate Recovery Data</b>					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R05	OI	<b>Test Reports/Summary Forms for Blank Samples</b>					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were blank concentrations < MQL?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
R06	OI	<b>Laboratory Control Samples (LCS)</b>					
		Were all chemicals of concern included in the LCS?			X		
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			X		
		Were LCSs analyzed at the required frequency?			X		
		Were LCS (and LCS duplicate, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the chemicals of concern at the MDL used to calculate the SQLs?	X				
		Was the LCS duplicate relative percent difference within QC limits?	X				
R07		<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?			X		
R08	OI	<b>Analytical Duplicate Data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R09	OI	<b>Method Quantitation Limits (MQLs)</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	<b>Other Problems/Anomalies</b>					
		Are all known problems/anomalies/special condition noted in this LRC and ER?	X				
		Were all necessary corrective actions preformed for the reported data?	X				
		Was applicable and available technology used to lower the SQL and minimize the matrix interference effects on the sample results?	X				

Appendix A:		Laboratory Review Checklist: Reportable Data					
Laboratory Name: SPL Kilgore		LRC Date: 08/28/2024					
Project Name: Default		Laboratory Job (Project) Number: 1114616					
Reviewer Name: Bill Peery (WJP)		PrepSet: 1133962 QCgroup: 1134626					
#	A	Description	Yes	No	NA	NR	ER#
S01	OI	<b>Initial Calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S02	OI	<b>Initial and Continuing Calibration Verification (ICCV and CCV) and Continuing Calibration</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MQL?			X		
S03	O	<b>Mass Spectral Tuning</b>					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S04	O	<b>Internal Standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?			X		
S05	OI	<b>Raw Data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section . . .)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S06	O	<b>Dual Column Confirmation</b>					
		Did dual column confirmation results meet the method-required QC?			X		
S07	O	<b>Tentatively Identified Compounds (TICs)</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S08	I	<b>Interference Check Sample (ICS) Results</b>					
		Were percent recoveries within method QC limits?			X		
S09	I	<b>Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	<b>Method Detection Limit (MDL) Studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of detectability check samples?	X				
S11	OI	<b>Proficiency Test Reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards Documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	IO	<b>Compound/Analyte Identification Procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of Analyst Competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC Section 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/Validation Documentation Methods (NELAC Chapter 5 or ISO/IEC Section 5)</b>					
		Are all the methods used to generate the data documented, verified and validated, where applicable?	X				
S16	OI	<b>Laboratory Standard Operating Procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	X				

- Items identified by the letter "R" must be included on the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention
- O = organic analyses; I = ionorganic analyses (and general chemistry, when applicable);
- N/A = Not applicable;
- NR = Not reviewed
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A:		Laboratory Review Checklist: Reportable Data						
Laboratory Name: SPL Kilgore		LRC Date: 08/28/2024						
Project Name: Default		Laboratory Job (Project) Number: 1114616						
Reviewer Name: Bill Peery (WJP)		PrepSet: 1134073 QCgroup: 1135392						
#	A	Description	Yes	No	NA	NR	ER#	
R01	OI	<b>Chain-of-Custody (C-O-C)</b>						
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?				X	1	
		Were all departures from standard conditions described in the exception report?	X					
R02	OI	<b>Sample and Quality Control (QC) Identification</b>						
		Are all field sample ID numbers cross referenced to the laboratory ID numbers?	X					
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X					
R03	OI	<b>Test Reports</b>						
		Were all samples prepared and analyzed within holding times?	X					
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X					
		Were calculations checked by a peer or supervisor?	X					
		Were all analyte identifications checked by a peer or supervisor?	X					
		Were sample quantitation limits reported for all analytes not detected?	X					
		Were all results for soil and sediment samples reported on a dry weight basis?			X			
		Were % moisture (or solids) reported for all soil and sediment samples?			X			
		If required for the project, tentatively identified compounds reported?			X			
R04	O	<b>Surrogate Recovery Data</b>						
		Were surrogates added prior to extraction?	X					
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X					
R05	OI	<b>Test Reports/Summary Forms for Blank Samples</b>						
		Were appropriate type(s) of blanks analyzed?	X					
		Were blanks analyzed at the appropriate frequency?	X					
		Were blank concentrations < MQL?	X					
R06	OI	<b>Laboratory Control Samples (LCS)</b>						
		Were all chemicals of concern included in the LCS?			X			
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			X			
		Were LCSs analyzed at the required frequency?			X			
		Were LCS (and LCS duplicate, if applicable) %Rs within the laboratory QC limits?	X					
		Does the detectability data document the laboratory's capability to detect the chemicals of concern at the MDL used to calculate the SQLs?	X					
R07		<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) data</b>						
		Were the project/method specified analytes included in the MS and MSD?			X			
		Were MS/MSD analyzed at the appropriate frequency?			X			
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X			
		Were MS/MSD RPDs within laboratory QC limits?			X			
R08	OI	<b>Analytical Duplicate Data</b>						
		Were appropriate analytical duplicates analyzed for each matrix?			X			
		Were analytical duplicates analyzed at the appropriate frequency?			X			
R09	OI	<b>Method Quantitation Limits (MQLs)</b>						
		Are the MQLs for each method analyte included in the laboratory data package?	X					
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X					
R10	OI	<b>Other Problems/Anomalies</b>						
		Are all known problems/anomalies/special condition noted in this LRC and ER?	X					
		Were all necessary corrective actions preformed for the reported data?	X					
			Was applicable and available technology used to lower the SQL and minimize the matrix interference effects on the sample results?	X				

Appendix A:		Laboratory Review Checklist: Reportable Data					
Laboratory Name: SPL Kilgore		LRC Date: 08/28/2024					
Project Name: Default		Laboratory Job (Project) Number: 1114616					
Reviewer Name: Bill Peery (WJP)		PrepSet: 1134073 QCgroup: 1135392					
#	A	Description	Yes	No	NA	NR	ER#
S01	OI	<b>Initial Calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S02	OI	<b>Initial and Continuing Calibration Verification (ICCV and CCV) and Continuing Calibration</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MQL?			X		
S03	O	<b>Mass Spectral Tuning</b>					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S04	O	<b>Internal Standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?			X		
S05	OI	<b>Raw Data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section . . .)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S06	O	<b>Dual Column Confirmation</b>					
		Did dual column confirmation results meet the method-required QC?	X				
S07	O	<b>Tentatively Identified Compounds (TICs)</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S08	I	<b>Interference Check Sample (ICS) Results</b>					
		Were percent recoveries within method QC limits?			X		
S09	I	<b>Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	<b>Method Detection Limit (MDL) Studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of detectability check samples?	X				
S11	OI	<b>Proficiency Test Reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards Documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	IO	<b>Compound/Analyte Identification Procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of Analyst Competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC Section 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/Validation Documentation Methods (NELAC Chapter 5 or ISO/IEC Section 5)</b>					
		Are all the methods used to generate the data documented, verified and validated, where applicable?	X				
S16	OI	<b>Laboratory Standard Operating Procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	X				

- Items identified by the letter "R" must be included on the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- N/A = Not applicable;
- NR = Not reviewed
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



Appendix A:		Laboratory Review Checklist: Reportable Data					
Laboratory Name:		SPL Kilgore		LRC Date:		08/28/2024	
Project Name:		Default		Laboratory Job (Project) Number:		1114616	
Reviewer Name:		Bill Peery (WJP)		PrepSet:		1134836 QCgroup: 1134931	
#	A	Description	Yes	No	NA	NR	ER#
R01	OI	<b>Chain-of-Custody (C-O-C)</b>					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?				X	1
		Were all departures from standard conditions described in the exception report?	X				
R02	OI	<b>Sample and Quality Control (QC) Identification</b>					
		Are all field sample ID numbers cross referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R03	OI	<b>Test Reports</b>					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample quantitation limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		If required for the project, tentatively identified compounds reported?			X		
R04	O	<b>Surrogate Recovery Data</b>					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R05	OI	<b>Test Reports/Summary Forms for Blank Samples</b>					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were blank concentrations < MQL?	X				
R06	OI	<b>Laboratory Control Samples (LCS)</b>					
		Were all chemicals of concern included in the LCS?			X		
		Was each LCS taken though the entire analytical procedure, including prep and cleanup steps?			X		
		Were LCSs analyzed at the required frequency?			X		
		Were LCS (and LCS duplicate, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the chemicals of concern at the MDL used to calculate the SQLs?	X				
R07		<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R08	OI	<b>Analytical Duplicate Data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R09	OI	<b>Method Quantitation Limits (MQLs)</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	<b>Other Problems/Anomalies</b>					
		Are all known problems/anomalies/special condition noted in this LRC and ER?	X				
		Were all necessary corrective actions preformed for the reported data?	X				
		Was applicable and available technology used to lower the SQL and minimize the matrix interference effects on the sample results?	X				

Appendix A:		Laboratory Review Checklist: Reportable Data					
Laboratory Name: SPL Kilgore		LRC Date: 08/28/2024					
Project Name: Default		Laboratory Job (Project) Number: 1114616					
Reviewer Name: Bill Peery (WJP)		PrepSet: 1134836 QCgroup: 1134931					
#	A	Description	Yes	No	NA	NR	ER#
S01	OI	<b>Initial Calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S02	OI	<b>Initial and Continuing Calibration Verification (ICCV and CCV) and Continuing Calibration</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MQL?	X				
S03	O	<b>Mass Spectral Tuning</b>					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S04	O	<b>Internal Standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?			X		
S05	OI	<b>Raw Data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section . . .)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S06	O	<b>Dual Column Confirmation</b>					
		Did dual column confirmation results meet the method-required QC?			X		
S07	O	<b>Tentatively Identified Compounds (TICs)</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S08	I	<b>Interference Check Sample (ICS) Results</b>					
		Were percent recoveries within method QC limits?	X				
S09	I	<b>Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	<b>Method Detection Limit (MDL) Studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of detectability check samples?	X				
S11	OI	<b>Proficiency Test Reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards Documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	IO	<b>Compound/Analyte Identification Procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of Analyst Competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC Section 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/Validation Documentation Methods (NELAC Chapter 5 or ISO/IEC Section 5)</b>					
		Are all the methods used to generate the data documented, verified and validated, where applicable?	X				
S16	OI	<b>Laboratory Standard Operating Procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	X				

- Items identified by the letter "R" must be included on the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- N/A = Not applicable;
- NR = Not reviewed
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



Appendix A: (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: SPL Kilgore	LRC Date: 08/28/2024
Project Name: Default	Laboratory Job (Project) Number: 1114616
Reviewer Name: Bill Peery (WJP)	PrepSet: 1133676 QCgroup: 1134012
ER#	Description
1	Bottles were reviewed at login. Please see the chain of custody record for sample receipt details.
2	The following MS/MSD constituents have recoveries outside of laboratory QC limits: (MS) Total Kjeldahl Nitrogen

1 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

<b>Appendix A: (cont'd):                      Laboratory Review Checklist: Exception Reports</b>	
Laboratory Name:                      SPL Kilgore	LRC Date:                      08/28/2024
Project Name:                      Default	Laboratory Job (Project) Number:                      1114616
Reviewer Name:                      Bill Peery (WJP)	PrepSet:                      1133962      QCgroup:                      1134626
<b>ER#</b>	<b>Description</b>
1	Bottles were reviewed at login. Please see the chain of custody record for sample receipt details.

1 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A: (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: SPL Kilgore	LRC Date: 08/28/2024
Project Name: Default	Laboratory Job (Project) Number: 1114616
Reviewer Name: Bill Peery (WJP)	PrepSet: 1134073 QCgroup: 1135392
ER#	Description
1	Bottles were reviewed at login. Please see the chain of custody record for sample receipt details.

1 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A: (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: SPL Kilgore	LRC Date: 08/28/2024
Project Name: Default	Laboratory Job (Project) Number: 1114616
Reviewer Name: Bill Peery (WJP)	PrepSet: 1134836 QCgroup: 1134931
ER#	Description
1	Bottles were reviewed at login. Please see the chain of custody record for sample receipt details.
2	The following MS/MSD constituents have recoveries outside of laboratory QC limits: (MS) Mercury, Total (low level)

1 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Email information for report date:  
8/22/24 13:06  
H026854

## DHL Analytical

Attn: John DuPont  
dupont@dhlanalytical.com

2300 Double Creek Drive  
Round Rock, TX 78664

**Please contact us for your sampling needs or if you have any questions. Some convenient contacts are listed below. You can also access your results and reports through our ClientConnect™ portal on our website (www.aqua-techlabs.com).**

For sampling questions:

samplingbryan@aqua-techlabs.com (Bryan area)  
samplingaustin@aqua-techlabs.com (Austin area)

reporting@aqua-techlabs.com (report questions)

Aqua-Tech values you as a customer and encourages you to speak with our staff at 979-778-3707 or the above emails if you have questions.

Thank you for your business,  
June M. Brien  
Executive Technical Director

**BRYAN FACILITY**  
635 Phil Gramm Boulevard  
Bryan, TX 77807  
Phone: (979) 778-3707  
Fax: (979) 778-3193



**AUSTIN FACILITY**  
3512 Montopolis Dr. Suite A  
Austin, TX 78744  
Phone: (512) 301-9559  
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

### The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

**Certificate: T104704371-23-27**



**TCEQ Lab ID T104704371**

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

### General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations.
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

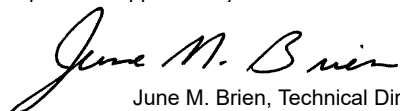
Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

### Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

  
June M. Brien, Technical Director

The results in this report apply only to the samples analyzed. This analytical report must be reproduced in its entirety unless written permission is granted by Aqua-Tech Laboratories, Inc.

corp@aqua-techlabs.com

www.aqua-techlabs.com

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AUSTIN FACILITY  
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Fax: (512) 301-9552

## Analytical Report

DHL Analytical

Report Printed:

8/22/24 13:06

H026854

### DHL 001 Outfall Effluent Grab

Collected: 08/13/24 00:00 by  
Received: 08/14/24 11:05 by Suzanne Rudd

Type  
Grab

Matrix  
Non Potable

C-O-C #  
H026854

Lab ID#	H026854-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch
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#### General Chemistry

Carbonaceous BOD (5 day)	2	mg/L			1	1	1	Austin	08/15/24 06:30 BGB	SM5210 B 2016	M181405	NEL
--------------------------	---	------	--	--	---	---	---	--------	--------------------	---------------	---------	-----

#### General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Carbonaceous BOD (5 day) - SM5210 B 2016												Austin
Diln Water Blk	0.20	mg/L	1	1	08/15/24 06:30 BGB		0.2		< or = 0.2 mg/L			2408185
GGA	211	mg/L	1	1	08/15/24 06:30 BGB	198		107	76 - 110			2408185
GGA	182	mg/L	1	1	08/15/24 06:30 BGB	198		91.9	76 - 110			2408185
GGA	198	mg/L	1	1	08/15/24 06:30 BGB	198		100	76 - 110			2408185
Seed Blank	<1	mg/L	1	1	08/15/24 06:30 BGB							2408185
Seed Blank	<1	mg/L	1	1	08/15/24 06:30 BGB							2408185
Seed Blank	<1	mg/L	1	1	08/15/24 06:30 BGB							2408185
Duplicate	7	mg/L	4	4	08/15/24 06:30 BGB		8			13.3	47.7	M181405

#### Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
H026854-01										
Carbonaceous BOD (5 day)	SM5210 B 2016	8/15/24 6:30 BGB	Austin	A	300	mL	300	mL	1	M181405

DHL Analytical, Inc.

2300 Double Creek Drive

Round Rock, TX 78664

TEL: (512) 388-8222

FAX:

Work Order: 2408159

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

H026854

**Subcontractor:**

AquaTech (Austin Office)

3512 Montopolis Drive

Austin, Texas 78744

TEL: (512) 301-9559

FAX:

Acct #:

13-Aug-24

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests					
					C-BOD					
					M5210B					
001 Outfall Effluent Grab	Aqueous	010	08/13/24 11:50 AM	1LHDPE	1					H026854-01A

**General Comments:**

Please analyze these samples with a Standard Turnaround Time.  
Quality Control Package Needed: Standard - SEND PDF & Excel EDD Please  
EMAIL report to both cac@dhlanalytical.com & dupont@dhlanalytical.com  
Call John DuPont if you have questions.

CU 4.5/4.5 CT 0764480

		Date/Time			Date/Time
Relinquished by:	<i>gMunday</i>	8/14/24 10:00	Received by:		<i>LS/WE</i>
Relinquished by:	<i>Anda K</i>		Received by:	<i>Suzanne Rudd Suzanne Rudd</i>	8/24/24 1105

## Francesca Findlay

---

**From:** Jain, Ankita <AJain@GarverUSA.com>  
**Sent:** Monday, December 9, 2024 9:39 AM  
**To:** Francesca Findlay  
**Cc:** Meadows, Jeffrey D.; Mohammed, Aneesa C.  
**Subject:** RE: WQ0011324002 City of Hutto  
**Attachments:** Municipal Discharge Renewal Spanish NORI.pdf; Municipal Discharge Renewal Spanish NORI.docx

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Morning Findlay,

I had reviewed the English version you had attached in the previous email. I found one small mistake, a duplicate of the word “to”. See snapshot below for your reference. Additionally, Please see the attached Spanish NORI word document and pdf.

Let me know if you want us to review anything further. Thanks.

**APPLICATION.** City of Hutto, 500 West Live Oak Street, Hutto, Texas 78634, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011324002 (EPA I.D. No. TX0132926) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 15,500,000 gallons per day. The domestic wastewater treatment facility is located at 10700 Farm-to-Market Road 1660 in the city of Hutto, in Williamson County, Texas 78634. The discharge route is from the plant site **to to Brushy Creek**. TCEQ received this application on December 3, 2024. The permit application will be available for viewing and copying at Hutto City Hall, 500 West Live Oak Street, Hutto, in Williamsom County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. This link to an electronic map of the site or facility's general location is provided as a public

**Ankita Jain, PE**  
Garver  
512-539-1972

---

**From:** Francesca Findlay <Francesca.Findlay@tceq.texas.gov>  
**Sent:** Friday, December 6, 2024 9:14 AM  
**To:** Jain, Ankita <AJain@GarverUSA.com>  
**Cc:** Meadows, Jeffrey D. <JDMeadows@GarverUSA.com>  
**Subject:** FW: WQ0011324002 City of Hutto



Dear Mr. Jain:

The attached Notice of Deficiency letter sent on December 6, 2024, requesting additional information needed to declare the application administratively complete. Please send the complete response to my attention December 20, 2024.

Thank you,

Francesca Findlay  
License & Permit Specialist  
ARP Team | Water Quality Division  
512-239-2441  
Texas Commission on Environmental Quality



Please consider whether it is necessary to print this e-mail

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