

#### This file contains the following documents:

- 1. Summary of application (in plain language)
  - English
  - Alternative Language (Spanish)
- 2. First notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
  - English
  - Alternative Language (Spanish)
- 3. Second notice (NAPD-Notice of Preliminary Decision)
  - English
  - Alternative Language (Spanish)
- 4. Application materials
- 5. Draft permit
- 6. Technical summary or fact sheet



#### Este archivo contiene los siguientes documentos:

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

#### ENGLISH LANGUAGE TEMPLATE FOR CAFO PERMIT APPLICATIONS

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by the TCEQ Public Participation Plan and Language Access Plan. 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.

1) Applicant's Name: Hillside Dairy, LLC

2) Enter <u>Customer Number</u>: CN604075390

3) Name of facility: Hillside Dairy

4) Enter Regulated Entity Number: RN102065166

5) Provide your permit Number: WQ0003160000

- 6) Facility Business: The facility confines 3,000 head of cattle of which all are milking. The facility has fifteen (15) land management units (LMUs) with the following acreages: LMU #1 50, LMU #2 34, LMU #3 16, LMU #3A 61, LMU #4 43, LMU #4A 56, LMU #5 26, LMU #5A 42, LMU #6 27, LMU #8 34, LMU #8A 7, LMU #E1 60, LMU #MR1 162, LMU #MR2 90 and LMU #220 64 acres. Two (2) retention control structures (RCSs) and one slurry pit. The required capacities are: RCS #1 25.26 ac-ft and RCS #2 34.05 ac-ft. There are twenty-seven (27) onsite wells of which three (3) are plugged. The facility is located in the North Bosque River in Segment No. 1226 of the Brazos River Basin.
- 7) Facility Location: The facility is located on the West side of County Road 209, approximately 1.5 miles South of the intersection of County Road 209 and US Highway 67, and approximately 7 miles Southeast of Stephenville in Erath County, Texas.
- 8) Application Type: Individual Permit Major Amendment
- 9) Description of your request: Hillside Dairy, LLC is submitting a major amendment application to increase the Headcount from 3,000 all of which are milking to 4,500 and 4,000 milking, reconfigure the drainage area, add Parlor #1, add Freestall Barns #3 & #5, expand RCS #2 (for additional storage), add a sand lane, add Concrete Basin #1, remove Concrete Basin #2 & #3, remove the Commodity Area, remove the proposed Cross-Vent Barn, remove pen South of Freestall Barn #3, reconfigure pen South of Freestall Barn #1, remove Wells #11-#27 and Well #3 is to be plugged. Current LMUs #1, #2, #3, #3A and #4 are reconfigured to proposed LMUs #1, #2, #3, #3A, #4, #4A and #5. Remove current LMUs #5, #5A, #6, #8, #8A, #MR1, #MR2 and #220 from the property boundary.
- 10)Potential pollutant sources at the facility include (list the pollutant sources): Manure, manure stockpiles, wastewater, sludge, slurry, compost, feed & bedding, silage stockpiles, dead animals, dust, lubricants, parlor chemicals, pesticides and fuel storage tanks.
- 11)The following best management practices will be implemented at the site to manage pollutants from the listed pollutant sources (describe the best management practices that are used): stormwater is stored in the lagoon (RCS) until land applied through irrigation and manure and sludge are stockpiled in the drainage area of the

RCS until land applied or hauled offsite for beneficial use. Manure and sludge generated by the CAFO will be retained and used in an appropriate and beneficial manner in accordance with a certified site-specific nutrient management plan. Wastewater will be contained in the RCS properly designed ((25-year frequency 10-day duration (25 year/10 day), constructed, operated and maintained according to the provision of the permit. Maintain 100-foot buffer for all irrigation wells or 150-foot for all supply wells. Dust – control speed and regular pen maintenance. Fertilizers – store under roof and handle according to specified label directions. Fuel Tanks – provide secondary containment and prevent overfills/spills. Dead animals – dispose by a third-party rendering service or compost on-site. Collected within 24 hours of death and disposed within three days.

- 12) Unless otherwise limited, manure, sludge, or wastewater will not be discharged from a land management unit (LMU) or a retention control structure (RCS) into or adjacent to water in the state from a CAFO except resulting from any of the following conditions:
- 1) a discharge of manure, sludge, or wastewater that the permittee cannot reasonably prevent or control resulting from a catastrophic condition other than a rainfall event;
- 2) overflow of manure, sludge, or wastewater from a RCS resulting from a chronic/catastrophic rainfall event; or
- 3) a chronic/catastrophic rainfall discharge from a LMU that occurs because the permittee takes measures to de-water the RCS if the RCS is in danger of imminent overflow.

#### **SPANISH**

El siguiente resumen se proporciona para esta solicitud pendiente de permiso de calidad del agua que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo exige el Plan de Participación Pública y el Plan de Acceso Lingüístico de la TCEQ. La información provista en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud del permiso.

- 1) Nombre del solicitante: Hillside Dairy, LLC
- 2) Ingrese el número de cliente: CN604075390
- 3) Nombre de la instalación: Hillside Dairy
- 4) Ingresar Número de Entidad Regulada: RN102065166
- 5) Proporcione su número de permiso: WQ0003160000
- 6) Instalación Comercial: La instalación alberga 3,000 cabezas de ganado, todas ellas en ordeño. La instalación tiene quince (15) unidades de administración de tierras (LMU) con las siguientes superficies: LMU #1 50, LMU #2 34, LMU #3 16, LMU #3A 61, LMU #4 43, LMU #4A 56, LMU #5 26, LMU #5A 42, LMU #6 27, LMU #8 34, LMU #8A 7, LMU #E1 60, LMU #MR1 162, LMU #MR2 90 y LMU #220 64 acres. Dos (2) estructuras de control de retención (RCS) y un pozo de lodos. Las capacidades requeridas son: RCS #1 25.26 ac-ft y RCS #2 34.05 ac-ft. Hay veintisiete (27) pozos en el sitio, de los cuales tres (3) están taponados. La instalación está ubicada en el Río Bosque Norte en el Segmento No. 1226 de la Cuenca del Río Brazos.
- 7) Ubicación de la instalación: La instalación está ubicada en el lado oeste de County Road 209, aproximadamente a 1.5 millas al sur de la intersección de County Road 209 y US Highway 67, y aproximadamente a 7 millas al sureste de Stephenville en el condado de Erath, Texas.
- 8) Tipo de Solicitud: Enmienda Importante al Permiso Individual
- 9) Descripción de su solicitud: Hillside Dairy, LLC está presentando una solicitud de enmienda importante para aumentar la plantilla de 3,000 de las cuales todas están ordeñando a 4,500 y 4,000 ordeñando, reconfigurar el área de drenaje, agregar la Sala #1, agregar los Establos de Libre Acceso #3 y #5, expandir el RCS #2 (para almacenamiento adicional), agregar un carril de arena, agregar la Cuenca de Concreto #1, eliminar las Cuencas de Concreto #2 y #3, eliminar el Área de Productos Básicos, eliminar el Establo de Respiradero Cruzado propuesto, eliminar el corral al sur del Establo de Libre Acceso #3, reconfigurar el corral al sur del Establo de Libre Acceso #1, eliminar los Pozos #11-#27 y el Pozo #3 debe taparse. Las LMU #1, #2, #3, #3A y #4 actuales se reconfiguran a las propuestas LMU #1, #2, #3, #3A, #4, #4A y #5. Eliminar las LMU actuales #5, #5A, #6, #8, #8A, #MR1, #MR2 y #220 del límite de la propiedad.

- 10) Las posibles fuentes de contaminantes en la instalación incluyen (enumere las fuentes de contaminantes): Estiércol, reservas de estiércol, aguas residuales, lodos, purines, compost, piensos y camas, reservas de ensilaje, animales muertos, polvo, lubricantes, productos químicos de salón, pesticidas y tanques de almacenamiento de combustible.
- 11) Las siguientes mejores prácticas de manejo se implementarán en el sitio para manejar los contaminantes de las fuentes de contaminantes enumeradas (describa las mejores prácticas de manejo que se utilizan): las aguas pluviales se almacenan en la laguna (RCS) hasta que se aplican a la tierra mediante riego y estiércol y lodo se almacenan en el área de drenaje del RCS hasta que se aplican a la tierra o se transportan fuera del sitio para un uso beneficioso. El estiércol y los lodos generados por CAFO se conservarán y utilizarán de manera apropiada y beneficiosa de acuerdo con un plan certificado de manejo de nutrientes específico del sitio. Las aguas residuales estarán contenidas en el RCS adecuadamente diseñado ((frecuencia de 25 años y duración de 10 días (25 años/10 días), construido, operado y mantenido de acuerdo con lo dispuesto en el permiso. Mantener una zona de amortiguamiento de 100 pies para todos los pozos de riego o 150 pies para todos los pozos de suministro. Polvo - velocidad de control y mantenimiento regular del corral. Fertilizantes almacénelos bajo techo y manipúlelos de acuerdo con las instrucciones especificadas en la etiqueta. Tanques de combustible - proporcionan contención secundaria y evitan sobrellenados/derrames. Animales muertos - elimínelos a través de un servicio de procesamiento de terceros o entierre en el sitio. Recolectado dentro de las 24 horas posteriores a la muerte y eliminado dentro de los tres días.
- 12) A menos que se limite de otro modo, el estiércol, los lodos o las aguas residuales no se descargarán desde una unidad de administración de tierra (LMU) o una estructura de control de retención (RCS) hacia el agua en el estado o junto a ella desde una CAFO, excepto que resulte de cualquiera de las siguientes condiciones:
- 1) una descarga de estiércol, lodo o aguas residuales que el tenedor del permiso no puede prevenir o controlar razonablemente como resultado de una condición catastrófica que no sea un evento de lluvia;
- 2) desbordamiento de estiércol, lodo o aguas residuales de un RCS como resultado de un evento de lluvia crónica/catastrófica; o
- 3) una descarga de lluvia crónica/catastrófica de una LMU que ocurre porque el tenedor del permiso toma medidas para vaciar el RCS si el RCS está en peligro de desbordamiento inminente.

### **TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**



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

#### PERMIT NO. WQ0003160000

**APPLICATION.** Hillside Dairy, LLC, 1865 Private Road 1233, Hico, Texas 76457, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Wastewater Permit No. WQ0003160000 (EPA I.D. No. TX0130893) for a Concentrated Animal Feeding Operation (CAFO) to authorize an increase in the Headcount from 3,000 all of which are milking to 4,500 and 4,000 are milking, reconfigure the drainage area, add Parlor #1, add Freestall Barns #3 & #5, expand RCS #2(for additional storage), add a sand lane, add Concrete Basin #1, remove Concrete Basins #2 & #3, remove the Commodity Area, remove the proposed Cross-Vent Barn, remove pen South of Freestall Barn #3, reconfigure pen South of Freestall Barn #1, remove Wells #11-#27 and Well #3 is to be plugged, current LMUs #1, #2, #3, #3A and #4 are reconfigured to proposed LMUs #1, #2, #3, #3A, #4, #4A and #5, Remove current LMUs #5, #5A, #6, #8, #8A, #MRl, #MR2 and #220 from the property boundary. The facility is located at 3502 County Road 209, near the city of Hico, in Erath County, Texas 76457. TCEQ received this application on April 24, 2025. The permit application will be available for viewing and copying at Erath County Extension Office - Erath County Courthouse, 100 Washington Street, Room 206, Stephenville, 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/pendingpermits/cafo-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=-98.072222,32.150555&level=18

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

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

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

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

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

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

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

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

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

Further information may also be obtained from Hillside Dairy, LLC at the address stated above or by calling Mr. Clemens Kuiper, Member, at 254-968-4018.

Issuance Date: May 22, 2025

#### Comisión de Calidad Ambiental del Estado de Texas



#### AVISO DE RECEPCIÓN DE LA SOLICITUD Y LA INTENCIÓN DE OBTENER CALIDAD DEL AGUA PERMISO MODIFICACION

#### PERMISO NO. WQ0003160000

**SOLICITUD.** Hillside Dairy, LLC, 1865 Private Road 1233, Hico, Texas 76457 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para la modificación de Permiso No. WQ0003160000 (EPA I.D. No. TX0130893) para una Operación Concentrada de Alimentación Animal (CAFO, por sus siglas en inglés) para autorizar un aumento en el conteo de cabezas de 3,000 de las cuales todas los cuales están ordeñando a 4,500 y 4,000 están ordeñando, reconfigurar el área de drenaje, agregar la Sala #1, agregar los Establos de Estabulación Libre #3 y #5, expandir el RCS #2 (para almacenamiento adicional), agregar un carril de arena, agregar un Depósito de Concreto #1. remover los Depósitos de Concreto #2 y #3, eliminar el área de comodidad, eliminar el establo propuesto con ventilación cruzada, eliminar el corral al sur de la estabulación libre #3, reconfigurar el corral al sur de la estabulación libre #1. Remover los pozos #11-#27 y el Pozo #3 debe ser tapado. Las LMU actuales #1, #2, #3, #3A y #4 se reconfiguran a las LMU propuestas #1, #2, #3, #3A, #4, #4A y #5. Remover las LMU actuales #5, #5A, #6, #8, #8A, #MRl, #MR2 y #220 del límite de la propiedad. La instalación está ubicada en 3502 County Road 209, en la ciudad de Hico, en el condado de Erath, Texas 76457. La TCEQ recibió esta solicitud el 24 de abril de 2025. La solicitud de permiso estará disponible para ver y copiar en la Oficina de Extensión del Condado de Erath - Tribunal del Condado de Erath, 100 Washington Street, Sala 206, Stephenville, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud, incluidas las actualizaciones y los avisos asociados, están disponibles electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-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=-98.072222,32.150555&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 v distancia de su propiedad/actividad con respecto a la instalación: una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

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

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

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

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

También se puede obtener información adicional del Hillside Dairy, LLC a la dirección indicada arriba o llamando al Sr. Clemens Kuiper, Socio, al 254-968-4018.

Fecha de emisión 22 de mayo de 2025

#### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR CAFO WATER QUALITY PERMIT

#### MAJOR AMENDMENT

#### **PERMIT NO. WQ0003160000**

**APPLICATION AND PRELIMINARY DECISION.** Hillside Dairy, LLC (**formerly Randy Earl Wyly and Hillside Dairy**, LLC), 1865 Private Road 1233, Hico, Texas, 76457 has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0003160000, for a Concentrated Animal Feeding Operation (CAFO), to authorize the applicant to increase the maximum capacity from 3,000 to 4,500 head, total dairy cattle, of which 4,000 will be milking cows; reconfigure existing land management units (LMUs) #1 – 50 acres, #2 – 34 acres, #3 – 16 acres, #3A - 61 acres and #4 – 43 acres into proposed LMU #1 – 50 acres, LMU #2 – 39 acres, LMU #3 – 47 acres, LMU #3A – 65 acres, LMU #4 – 48 acres, LMU #4A – 42 acres and LMU #5 – 21 acres; and remove several off-site LMUs. The total land application area will decrease from 772 to 372 acres. Other proposed changes include the surface area expansion of retention control structure (RCS) #2; reconfiguration of the drainage areas of RCSs #1 and #2; addition of parlor #1, freestall barns #3 and #5, a sand lane, and concrete basin #1; and reconfiguration of the pen south of freestall barn #1. The RCS design calculations have been revised which decreased the required capacity of RCS #1 from 25.26 to 21.64 acre-feet and RCS #2 from 34.05 to 30.28 acre-feet. TCEQ received this application on April 24, 2025.

The facility is located at 3502 County Road 209, Hico in Erath County, Texas 76457. The facility is located in the drainage area of the North Bosque River in Segment No. 1226 of the Brazos River Basin. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice.

<u>https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.072222,32.150555&level=18</u>. For the exact location, refer to the application.

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. This permit is consistent with the requirements of the antidegradation implementation procedures in 30 Texas Administrative Code §307.5 (c)(2)(G) of the Texas Surface Water Quality Standards and no lowering of water quality is anticipated. The TCEQ Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's Preliminary Decision, and draft permit are available for viewing and copying at the **Erath County Extension Office**, **Erath County Courthouse**, **Room 206, 100 Washington Street**, **Stephenville**, **Texas 76401**.

The application, including any updates, and associated notices are available electronically at the following webpage: <a href="https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-applications">https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-applications</a>.

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

CHANGE IN LAW. The Texas Legislature enacted Senate Bill 709, effective September 1, 2015, amending the requirements for comments and contested case hearings. This application is subject to those changes in law.

**PUBLIC COMMENT / PUBLIC MEETING.** You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ holds a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number, applicant's name and permit number, the location and distance of your property/activities relative to the 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 germane 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 will only grant a contested case hearing on disputed issues of fact that are relevant and material to the Commission's decision on the application. Further, the Commission will only grant a hearing on issues that were raised in timely filed comments that were not subsequently withdrawn.

If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.

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

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

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at <a href="https://www14.tceq.texas.gov/epic/eComment/">https://www14.tceq.texas.gov/epic/eComment/</a> within 30 days from the date of newspaper publication of this notice.

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

**AGENCY CONTACTS AND INFORMATION.** Public comments and requests must be submitted either electronically at <a href="https://www14.tceq.texas.gov/epic/eComment/">https://www14.tceq.texas.gov/epic/eComment/</a>, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Any personal information you submit to the TCEQ will become part of the agency's record; this includes email addresses. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at <a href="https://www.tceq.texas.gov/goto/pep">www.tceq.texas.gov/goto/pep</a>. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Mr. Clemens Kuiper at the address stated above or by calling Mr. Corey Mullin, Enviro-Ag Engineering, Inc. at (254) 965-3500.

Issuance Date: October 30, 2025

#### COMISIÓN DE CALIDAD AMBIENTAL DE TEXAS



#### ANUNCIO DE SOLICITUD Y DECISIÓN PRELIMINAR PARA CAFO PERMISO DE CALIDAD DEL AGUA

#### **MAJOR AMENDMENT**

#### PERMISO Nº WQ0003160000

**SOLICITUD Y DECISIÓN PRELIMINAR.** Hillside Dairy, LLC (anteriormente Randy Earl Wyly y Hillside Dairy, LLC), 1865 Private Road 1233, Hico, Texas, 76457 ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) una enmienda importante del Permiso No. WQ0003160000, para una Operación Concentrada de Alimentación Animal (CAFO) para autorizar al solicitante a aumentar la capacidad máxima de 3,000 a 4,500 cabezas, total de ganado lechero, de las cuales 4,000 serán vacas lecheras; reconfigurar las unidades de manejo de tierras (UMLs) existentes #1 - 50 acres, #2 - 34 acres, #3 - 16 acres, #3A - 61 acres y #4 - 43 acres en las UMLs propuestas #1 - 50 acres, UML #2 - 39 acres, UML #3 - 47 acres, UML #3A - 65 acres, UML #4 - 48 acres, UML #4A - 42 acres y UML #5 - 21 acres; y eliminar varias UMLs fuera del sitio. El área total de aplicación de tierras disminuirá de 772 a 372 acres. Otros cambios propuestos incluyen la expansión de la superficie de la estructura de control de retención (RCS) #2; reconfiguración de las áreas de drenaje de las RCS #1 y #2; adición del salón de ordeño #1, establos de confinamiento #3 y #5, un camino de arena y el basurero de concreto #1; y reconfiguración del corral al sur del establo de confinamiento #1. Los cálculos de diseño de la RCS se han revisado, lo que disminuyó la capacidad requerida de la RCS #1 de 25.26 a 21.64 acre-pies y de la RCS #2 de 34.05 a 30.28 acrepies. La TCEQ recibió esta solicitud el 24 de abril de 2025.

La instalación se encuentra 3502 County Road 209, Hico en Erath, Texas. La instalación está ubicada en el área de drenaje del North Bosque River en el Segmento N.º1226 de la Brazos «Nombre\_de\_cuenca\_del\_río». Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía pública y no es parte de la solicitud o aviso. <a href="https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.072222,32.150555&level=18">https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.072222,32.150555&level=18</a>. Para conocer la ubicación exacta, consulte la solicitud.

El Director Ejecutivo de la TCEQ ha concluido el examen técnico de la solicitud y ha preparado un bosquejo de permiso. El bosquejo de permiso, de ser aprobado, establecería las condiciones bajo las cuales la instalación debe operar. Este permiso es consistente con los requisitos de los procedimientos de implementación antidegradación en 30 Código Administrativo de Texas §307.5 (c) (2) (G) de los Estándares de Calidad de Aguas Superficiales de Texas y no se anticipa una disminución de la calidad del agua. El Director Ejecutivo de la TCEQ ha tomado una decisión preliminar de que este permiso, si se emite, cumple con todos los requisitos legales y reglamentarios. La solicitud de permiso, la Decisión Preliminar del Director Ejecutivo y el bosquejo del permiso están disponibles para su visualización y copia en la Oficina de Extensión del Condado de Erath, Palacio de Justicia del Condado de Erath, Sala 206, 100 Washington Street, Stephenville, Texas 76401.

La solicitud, incluidas las actualizaciones, y los avisos asociados están disponibles electrónicamente en la siguiente página web: <a href="https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-applications">https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-applications</a>.

CAMBIO EN LA LEY. La Legislatura de Texas promulgó el Proyecto de Ley del Senado 709, efectivo el 1 de septiembre de 2015, que modifica los requisitos para comentarios y audiencias de casos impugnados. Esta solicitud está sujeta a esos cambios en la ley.

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

COMENTARIO PÚBLICO / REUNIÓN PÚBLICA. Puede enviar comentarios públicos o solicitar una reunión pública sobre esta solicitud. El propósito de una reunión pública es para brindar la oportunidad de enviar comentarios o hacer preguntas sobre la solicitud. La TCEQ celebra una reunión pública si el Director Ejecutivo determina que existe un grado significativo de interés público en la solicitud o si lo solicita un legislador local. Una reunión pública no es una audiencia de caso impugnado.

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

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, DEBE INCLUIR LOS SIGUIENTES ELEMENTOS EN SU SOLICITUD: su nombre; dirección, teléfono; nombre y número de permiso del solicitante; la ubicación y distancia de su propiedad / actividades en relación con la instalación; una descripción específica de cómo se vería afectado negativamente por la instalación de una manera que no es común para el público en general; una lista de todas las cuestiones de hecho controvertidas que usted planteó durante el periodo de comentarios y la declaración "[Yo/nosotros] solicito/amos una audiencia de caso impugnado". Si la solicitud de audiencia de caso impugnado se presenta en nombre de un grupo o asociación, la solicitud debe designar al representante del grupo para recibir correspondencia futura; identificar por nombre y dirección física a un miembro individual del grupo que se vería afectado negativamente por la instalación o actividad; proporcionar la información discutida anteriormente con respecto a la ubicación y distancia del miembro afectado de la instalación o actividad; explicar cómo y por qué se vería afectado el miembro; y explicar cómo los intereses que el grupo busca proteger son relevantes para el propósito del grupo.

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

La Comisión sólo concederá una audiencia de caso impugando sobre cuestiones de hecho controvertidas que sean relevantes y materiales para la decisión de la Comisión sobre la solicitud. Además, la Comisión sólo concederá una audiencia sobre cuestiones que se plantearon en comentarios presentados oportunamente que no fueron retirados posteriormente. Si se concede una audiencia, el tema de una audiencia se limitará a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas con preocupaciones relevantes y materiales sobre la calidad del agua presentadas durante el periodo de comentarios.

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

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

Todos los comentarios públicos escritos y las solicitudes de reunión pública deben enviarse a la Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 787113087 -o electrónicamente a <a href="https://www14.tceq.texas.gov/epic/eComment/">https://www14.tceq.texas.gov/epic/eComment/</a> dentro de los 30 días a partir de la fecha de publicación de este aviso en el periódico.

**INFORMACIÓN DISPONIBLE EN LÍNEA**. Para obtener detalles sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en <a href="www.tceq.texas.gov/goto/cid">www.tceq.texas.gov/goto/cid</a>. Busque en la base de datos utilizando el número de permiso para esta solicitud, que se proporciona en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios y solicitudes públicas deben enviarse electrónicamente a <a href="https://www14.tceq.texas.gov/epic/eComment/">https://www14.tceq.texas.gov/epic/eComment/</a>, o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Cualquier información personal que envíe a al TCEQ pasará a formar parte del registro de la agencia; esto incluye las direcciones de correo electrónico. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame al Programa de Educación Pública de la TCEQ, sin cargo, al 1-800-687-4040 o visite su sitio web en <a href="https://www.tceq.texas.gov/goto/pep">https://www.tceq.texas.gov/goto/pep</a>. Si desea información en español, puede llamar al 1-800-687-4040. También se puede obtener más información de Sr. Clemens Kuiper en la dirección indicada anteriormente o llamando a Sr. Corey Mullin, Enviro-Ag Engineering, Inc. a (254) 965-3500.

Fecha de Emisión: 30 de octubre de 2025



Corporate Office: 3404 Airway Blvd. Amarillo TX 79118 Central Texas: 9855 FM 847 Dublin TX 76446 New Mexico: 203 East Main Street Artesia NM 88210

April 23, 2025

#### **TCEQ**

Registration, Review and Reporting Division Permits Administration Review Section Water Quality Applications Team, MC-148 12100 Park 35 Circle Austin, TX 78753

Re:

Hillside Dairy – Permit No. WQ0003160000

Erath County, Texas.

Dear Administrative Review Section,

Enclosed please find the Major Amendment application for the above referenced facility. The \$350 application fee was paid electronically, and the voucher is attached. Should you have any questions please do not hesitate to contact me.

Respectfully Submitted,

Jourdan Mullin

Enviro-Ag Engineering, Inc.

Cc: TCEQ Region 4, Stephenville

PHONE: 800-753-6525

Hillside Dairy

EAE file

# 30 TAC 321, SUBCHAPTER B APPLICATION, POLLUTION PREVENTION PLAN & CNMP

Hillside Dairy

Major Amendment Application

Prepared For:

Hillside Dairy, LLC 1865 Private Road 1233 Hico, TX 76457

April 2, 2025

Prepared By:



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#### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# ELECTRONIC WAIVER REQUEST FOR A CONCENTRATED ANIMAL FEEDING OPERATION (CAFO)

A Large CAFO, as defined in the CAFO rules at 30 TAC 321.32(14)(A), must request a waiver from e-reporting requirements codified in 40 Code of Federal Regulations §127.15 OR be required to submit CAFO annual reports electronically.

Are you requesting a waiver from e-reporting requirements?

☑ Yes, Indicate the type of waiver below.
 ☑ Temporary Waiver
 ☐ Permanent Waiver (available to facilities and entities owned or operated by members of religious communities that choose not to use certain modern technologies (e.g., computers, electricity))

 $\square$  No, you must submit your application electronically through TCEQ ePermits system (STEERS) at <a href="https://www3.tceq.texas.gov/steers/index.cfm">https://www3.tceq.texas.gov/steers/index.cfm</a>. Check <a href="https://www3.tceq.texas.gov/steers/index.cfm">How to Apply through STEERS</a>.

If an electronic waiver request is granted, the Applicant(s) seeking authorization, or an authorized permittee(s) may continue to submit CAFO annual reports to TCEQ in a paper format.

#### Note:

- An approved waiver is not transferrable.
- Each Owner or Operator must request his own waiver.
- Temporary waiver will not extend beyond five years. However, permittees may re-apply for a new temporary waiver, if needed.

State Only CAFOs are exempt from this requirement.



#### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# INDIVIDUAL PERMIT APPLICATION FOR A CONCENTRATED ANIMAL FEEDING OPERATION (CAFO)

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

#### **SECTION 1. APPLICATION FEE**

Minor Amendment - \$150.00 Renewal - \$315.00 New or Major Amendment - \$350.00

Mailed Check/Money Order Number:

Check/Money Order Amount:

Name Printed on Check:

EPAY Voucher Number: 763588 & 763589

Copy of Payment Voucher enclosed? Yes  $\boxtimes$ 

#### **SECTION 2. TYPE OF APPLICATION**

4.	Coverage:	State Only	TPDES 🗵		
В.	Media Type:	Water Quality □	Air and Water Qual	ity	$\boxtimes$
C.	Application T	ype: New □	Major Amendment	$\boxtimes$	
		Renewal □	Minor Amendment		

- D. For amendments, describe the proposed changes: Increase the Headcount from 3,000 all of which are milking to 4,500 and 4,000 are milking, reconfigure the drainage area, add Parlor #1, add Freestall Barns #3 & #5, expand RCS #2(for additional storage), add a sand lane, add Concrete Basin #1, remove Concrete Basins #2 & #3, remove the Commodity Area, remove the proposed Cross-Vent Barn, remove pen South of Freestall Barn #3, reconfigure pen South of Freestall Barn #1, remove Wells #11-#27 and Well #3 is to be plugged. Current LMUs #1, #2, #3, #3A and #4 are reconfigured to proposed LMUs #1, #2, #3, #3A, #4, #4A and #5. Remove current LMUs #5, #5A, #6, #8, #8A, #MR1, #MR2 and #220 from the property boundary.
- **E.** For existing permits:

What is the permit number? <u>WQ00031600000</u>

Questions or Comments >>

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#### Transaction Information

Voucher Number: 763588

**Trace Number:** 582EA000665016

Date: 04/23/2025 09:42 AM

Payment Method: CC - Authorization 000007247G

Voucher Amount: \$300.00

Fee Type: CAFO PERMIT - NEW OR MAJOR AMENDMENT

ePay Actor: JOURDAN MULLIN
Actor Email: jmullin@enviroag.com
IP: 156.146.244.233

#### Payment Contact Information -

Name: JOURDAN MULLIN

Company: ENVIRO-AG ENGINEERING INC

Address: 3404 AIRWAY BLVD, AMARILLO, TX 79118

Phone: 806-679-5570

#### Site Information

Site Name: HILLSIDE DAIRY

Site Location: 3502 CR 209 HICO TX 76457

#### Customer Information

Customer Name: HILLSIDE DAIRY LLC

Customer Address: 1865 PR 1233, HICO, TX 76457

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#### Transaction Information

Voucher Number: 763589

Trace Number: 582EA000665016

Date: 04/23/2025 09:42 AM

Payment Method: CC - Authorization 000007247G

Voucher Amount: \$50.00

Fee Type: 30 TAC 305.53B WQ NOTIFICATION FEE

ePay Actor: JOURDAN MULLIN
Actor Email: jmullin@enviroag.com
IP: 156.146.244.233

#### Payment Contact Information

Name: JOURDAN MULLIN

Company: ENVIRO-AG ENGINEERING INC

Address: 3404 AIRWAY BLVD, AMARILLO, TX 79118

Phone: 806-679-5570

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#### SECTION 3. FACILITY OWNER (APPLICANT) INFORMATION

A.	What is the lega	al name of the fac	cility owner?			
	Hillside Dairy, I	LI.C				
B.	If the applicant	is an existing TC	EQ customer, 1	provi	de the Customer	Number (CN) issued to
	this entity? CN	604075390				
C.	What is the con	tact information	for the owner?	1		
	Mailing Address	s: <u>1865 PR 1233</u>				
	City, State and	Zip Code: <u>Hico, T</u>	X 76457			
	Phone Number:	254/968-4018 Fa	ax Number: <u>n/a</u>	<u>a</u>		
	E-mail Address:	<u>Clemens.karin@</u>	hotmail.com			
_	T 1:	<b>C</b> .				
	Indicate the typ	be of customer:				
	Individual	ahin			Federal Governr	
	Limited Partne General Partne	-			County Governme State Governme	
	Trust	cromp			City Governmen	
	Sole Proprieto	rshin (D R A )			Other Governmen	
	Corporation	10mp ( <i>D.b.i</i> ii)				tick here to enter text.
	Estate				other, speemy.	
E.	If the customer	type is individua	al, complete At	tachı	nent 1.	
F.	Is this custome	r an independent	entity?			
	⊠ Yes	□ No govern	nment, subsidi	ary,	or part of a large	r corporation
G.	Number of emp	oloyees:				
	□ 0-20	⊠ 21-100	□ 101-250		□ 251-500	□ 501 or higher
Н.	For Corporation	ns and Limited Pa	rtnerships:			
	What is the Tax	: Identification Nu	ımber issued b	y th	e State Comptrol	ler: <u>32047193472</u>
	What is the Cha	arter Filing Numb	er issued by th	e Te	xas Secretary of S	State: <u>0801559806</u>
SE	CTION 4. CO-A	APPLICANT INF	ORMATION			
Co	mplete this sect	ion only if anothe	er person or en	itity	is required to app	ply as a co-permittee.
A.	What is the lega	al name of the co	-applicant?			
	Click here to a	Transfer to				
B.	If the applicant	is an existing TC	EQ customer, p	orovi	de the Customer	Number (CN) issued to

	this	entity? CN (	lick here to enter	text:			
C.	. What is the contact information for the co-applicant?						
	Mail	ing Address	: Click here to ent	er text.			
	City	, State and Z	ip Code: Click her	e to enter tes	kt.		
	Pho	ne Number: 1	Fax Number: Click	here to ente	r (ary	en .	
	E-m	ail Address:	Click here to ente	r text.			
D.	Indi	cate the type	e of customer:				
		Individual Limited Part General Part Trust Sole Propriet Corporation Estate	tnership etorship (D.B.A.)			Federal Government County Government State Government City Government Other Government Other, specify:	nt
E.	If th	e customer	type is individual,	complete At	tachi	nent 1.	
F.	Is th	nis customer	an independent e	ntity?			
		Yes	□ No governme	ent, subsidiar	y, or	part of a larger con	rporation
G.	Nun □ 0-	nber of empl -20	loyees: □ 21-100	□ 101-250		□ 251-500	□ 501 or higher
Н.	For	Corporation	s and Limited Part	nerships:			
	Wha		Identification Nur	nber issued b	y the	e State Comptroller	: Click here to enter
	Wha	it is the Chai	rter Filing Number	issued by th	ie Te	xas Secretary of Sta	te: Click here to enter
	Boxt						
SE	CTIO	ON 5. APPL	ICATION CONT.	ACT INFOR	МАТ	TION	
	is is plica		「CEQ will contact if	f additional ir	ıforn	nation is needed abo	ut this
	Pref	ix (Mr., Ms.,	Miss): Mr.				

Application Contact First and Last Name: Corey Mullin

Title: Consultant Credentials: Chek here to enter text,

Company Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City, State and Zip Code: <u>Dublin, TX 76446</u>

Phone Number: <u>254/965-3500</u> Fax Number: <u>254/965-8000</u>

E-mail Address: <a href="mailto:cmullin@enviroag.com">cmullin@enviroag.com</a>

#### SECTION 6. PERMIT CONTACT INFORMATION

Provide two names of individuals that TCEQ can contact during the term of the permit.

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

Permit Contact First and Last Name: Corey Mullin

Title: Consultant Credentials: Click here to enter text.

Company Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City, State and Zip Code: <u>Dublin</u>, TX 76446

Phone Number: <u>254/965-3500</u> Fax Number: <u>254/965-8000</u> E-mail Address:

cmullin@enviroag.com

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

Permit Contact First and Last Name: Clemens Kuiper

Title: Member Credentials: Click here to enter text

Company Name: Hillside Dairy, LLC

Mailing Address: 1865 PR 1233

City, State and Zip Code: Hico, TX 76457

Phone Number: 254/968-4018 Fax Number: n/a E-mail Address:

Clemens.karin@hotmail.com

#### SECTION 7. ANNUAL BILLING CONTACT INFORMATION

Please identify the individual for receiving the annual fee invoices.

Is the billing contact and contact information the same as the Owner or the Co-Applicant identified in Section 3) or Section 4) above?

☐ Yes, specify which applicant on the line below and go to Section 8)

Owner, Hillside Dairy, LLC

 $\square$  No, complete this section

Prefix (Mr., Ms., Miss): Click here to enter text.

First and Last Name: Click have to enter text.

Title: Click here to enter text. Credentials: Click here to enter text.

Company Name: Click here to enter text.

Mailing Address: Click here to enter text.

City, State and Zip Code: Clark here to enter fext.

Phone Number: Click here to enter text. Fax Number: Click here to enter text. E-mail

Address: Class here to enter text.

#### **SECTION 8. LANDOWNER INFORMATION**

A. Landowner where the production area is or will be located

Landowner Name: Hillside Dairy, LLC

B. Landowner of the land management units (LMUs)

Landowner Name: Hillside Dairy, LLC

#### **SECTION 9. PUBLIC NOTICE INFORMATION**

A. Individual responsible for publishing the notices in the newspaper

Prefix (Mr., Ms., Miss): Mrs. First and Last Name: Jourdan Mullin

Title: Consultant Credentials: Click here to enter text.

Company Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City, State and Zip Code: <u>Dublin, TX 76446</u>

Phone Number: 254/965-3500 Fax Number: 254/965-8000 E-mail Address:

jmullin@enviroag.com

B. Method for receiving the notice package for the Notice of Receipt and Intent

☐ Fax Number: Click here to enter text.

□ Regular Mail:

Mailing Address: 9855 FM 847

City, State and Zip Code: Dublin, TX 76446

C. Contact person to be listed in the notice

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

First and Last Name: Clemens Kuiper

Title: Member Credentials: Click here to enter text.

Company Name: Hillside Dairy, LLC

Phone Number: 254/968-4018

D. Public viewing location

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

Public Building Name: Erath County Extension Office - Erath County Courthouse

Physical Address of Building: 100 Washington St. Room 206

City: <u>Stephenville</u> County: <u>Erath</u> Phone Number: <u>254/965-1460</u>

#### E. Bilingual Notice Requirement

**For new, major amendment, and renewal applications.** This information can be obtained by contacting the bilingual/ESL coordinator at the nearest elementary or middle school.

1. Is a bilingual education program required by the Texas Education Code at the nearest elementary or middle school to the facility or proposed facility? Yes  $\boxtimes$  No  $\square$ 

(**If No**, alternative language notice publication is not required; skip to Section 10. Regulated Entity (Site) Information.)

**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 1, 2, 3, or 4, public notice in an alternative language is required. Which language is required by the bilingual program? <u>Spanish</u>
- 6. Complete the <u>CAFO Plain Language Summary Template</u> (English) for CAFO Permit Applications for a new, renewal, major or minor amendment and submit with this application.

If a bilingual education program is required by the Texas Education Code at the nearest elementary or middle school to the facility or proposed facility, also complete the <u>CAFO Plain Language Summary Template</u> (Spanish) or provide a translated copy of the completed English plain language summary in the appropriate alternative language if different from Spanish.

#### F. Public Involvement Plan Form

Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment to a permit.

#### SECTION 10. REGULATED ENTITY (SITE) INFORMATION

- **A.** Site Name as known by the local community: Hillside Dairy
- **B.** If this is an existing permitted site, provide the Regulated Entity Number (RN) issued to this site? RN 102065166
- **C.** Site Address/Location:

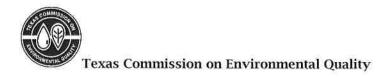
#### ENGLISH LANGUAGE TEMPLATE FOR CAFO PERMIT APPLICATIONS

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by the TCEQ Public Participation Plan and Language Access Plan. 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.

- 1) Applicant's Name: Hillside Dairy, LLC
- 2) Enter <u>Customer Number</u>: CN604075390
- 3) Name of facility: Hillside Dairy
- 4) Enter Regulated Entity Number: RN102065166
- 5) Provide your permit Number: WQ0003160000
- 6) Facility Business: The facility confines 3,000 head of cattle of which all are milking. The facility has fifteen (15) land management units (LMUs) with the following acreages: LMU #1 50, LMU #2 34, LMU #3 16, LMU #3A 61, LMU #4 43, LMU #4A 56, LMU #5 26, LMU #5A 42, LMU #6 27, LMU #8 34, LMU #8A 7, LMU #E1 60, LMU #MR1 162, LMU #MR2 90 and LMU #220 64 acres. Two (2) retention control structures (RCSs) and one slurry pit. The required capacities are: RCS #1 25.26 ac-ft and RCS #2 34.05 ac-ft. There are twenty-seven (27) onsite wells of which three (3) are plugged. The facility is located in the North Bosque River in Segment No. 1226 of the Brazos River Basin.
- 7) Facility Location: The facility is located on the West side of County Road 209, approximately 1.5 miles South of the intersection of County Road 209 and US Highway 67, and approximately 7 miles Southeast of Stephenville in Erath County, Texas.
- 8) Application Type: Individual Permit Major Amendment
- 9) Description of your request: Hillside Dairy, LLC is submitting a major amendment application to increase the Headcount from 3,000 all of which are milking to 4,500 and 4,000 milking, reconfigure the drainage area, add Parlor #1, add Freestall Barns #3 & #5, expand RCS #2 (for additional storage), add a sand lane, add Concrete Basin #1, remove Concrete Basin #2 & #3, remove the Commodity Area, remove the proposed Cross-Vent Barn, remove pen South of Freestall Barn #3, reconfigure pen South of Freestall Barn #1, remove Wells #11-#27 and Well #3 is to be plugged. Current LMUs #1, #2, #3, #3A and #4 are reconfigured to proposed LMUs #1, #2, #3, #3A, #4, #4A and #5. Remove current LMUs #5, #5A, #6, #8, #8A, #MR1, #MR2 and #220 from the property boundary.
- 10)Potential pollutant sources at the facility include (list the pollutant sources): Manure, manure stockpiles, wastewater, sludge, slurry, compost, feed & bedding, silage stockpiles, dead animals, dust, lubricants, parlor chemicals, pesticides and fuel storage tanks.
- 11)The following best management practices will be implemented at the site to manage pollutants from the listed pollutant sources (describe the best management practices that are used): stormwater is stored in the lagoon (RCS) until land applied through irrigation and manure and sludge are stockpiled in the drainage area of the

RCS until land applied or hauled offsite for beneficial use. Manure and sludge generated by the CAFO will be retained and used in an appropriate and beneficial manner in accordance with a certified site-specific nutrient management plan. Wastewater will be contained in the RCS properly designed ((25-year frequency 10-day duration (25 year/10 day), constructed, operated and maintained according to the provision of the permit. Maintain 100-foot buffer for all irrigation wells or 150-foot for all supply wells. Dust – control speed and regular pen maintenance. Fertilizers – store under roof and handle according to specified label directions. Fuel Tanks – provide secondary containment and prevent overfills/spills. Dead animals – dispose by a third-party rendering service or compost on-site. Collected within 24 hours of death and disposed within three days.

- 12) Unless otherwise limited, manure, sludge, or wastewater will not be discharged from a land management unit (LMU) or a retention control structure (RCS) into or adjacent to water in the state from a CAFO except resulting from any of the following conditions:
- 1) a discharge of manure, sludge, or wastewater that the permittee cannot reasonably prevent or control resulting from a catastrophic condition other than a rainfall event;
- 2) overflow of manure, sludge, or wastewater from a RCS resulting from a chronic/catastrophic rainfall event; or
- 3) a chronic/catastrophic rainfall discharge from a LMU that occurs because the permittee takes measures to de-water the RCS if the RCS is in danger of imminent overflow.



# Public Involvement Plan Form for Permit and Registration Applications

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

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

Section 1. Preliminary Screening
New Permit or Registration Application  X New Activity – modification, registration, amendment, facility, etc. (see instructions)
If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.
Section 2. Secondary Screening
X Requires public notice,
Considered to have significant public interest, and
Located within any of the following geographical locations:
<ul> <li>Austin</li> <li>Dallas</li> <li>Fort Worth</li> <li>Houston</li> <li>San Antonio</li> <li>West Texas</li> <li>Texas Panhandle</li> <li>Along the Texas/Mexico Border</li> <li>Other geographical locations should be decided on a case-by-case basis</li> </ul>
If all the above boxes are not checked, a Public Involvement Plan is not necessary.  Stop after Section 2 and submit the form.
Public Involvement Plan not applicable to this application. Provide <b>brief</b> explanation.

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Section 3. Application Information
Type of Application (check all that apply):
Air Initial Federal Amendment Standard Permit Title V
Waste Municipal Solid Waste Industrial and Hazardous Waste Scrap Tire Radioactive Material Licensing Underground Injection Control
Water Quality
X Texas Pollutant Discharge Elimination System (TPDES)
Texas Land Application Permit (TLAP)
XState Only Concentrated Animal Feeding Operation (CAFO)
Water Treatment Plant Residuals Disposal Permit
Class B Biosolids Land Application Permit
Domestic Septage Land Application Registration
Water Bishts Non Demoit
Water Rights New Permit  New Appropriation of Water
New or existing reservoir
Amendment to an Existing Water Right
Add a New Appropriation of Water
Add a New or Existing Reservoir
Major Amendment that could affect other water rights or the environment
Section 4. Plain Language Summary
Hillside Dairy is a dairy milking facility.

Section 5. Community and Demographic Information
Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.
Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.
Stephenville (City)
Erath
(County)
(Census Tract) Please indicate which of these three is the level used for gathering the following information.  City  County $X$ Census Tract  (a) Percent of people over 25 years of age who at least graduated from high school
(b) Per capita income for population near the specified location
(b) Per capita income for population near the specified location \$24,810
(c) Percent of minority population and percent of population by race within the specified location
White - 75.6%. Black or African American - 3.29%. Hispanic - 12.7%. Two or More Races - 2.11% Other - 2.68%. Asian - 1.3%. Indian - 1.6%. Multiracial - 0.72%
(d) Percent of Linguistically Isolated Households by language within the specified location 0%
(e) Languages commonly spoken in area by percentage
English - 89.4% Spanish - 10.6%
(f) Community and/or Stakeholder Groups  N/A
(g) Historic public interest or involvement
N/A

Section 6. Planned Public Outreach Activities
(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?  X Yes No
(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?
Yes No
If Yes, please describe.
If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.  (c) Will you provide notice of this application in alternative languages?  Yes No
Please refer to Section 5. If more than 5% of the population potentially affected by your
application is Limited English Proficient, then you are required to provide notice in the alternative language.
If yes, how will you provide notice in alternative languages?
Publish in alternative language newspaper
Posted on Commissioner's Integrated Database Website
Mailed by TCEQ's Office of the Chief Clerk
Other (specify)
(d) Is there an opportunity for some type of public meeting, including after notice?
Yes No
(e) If a public meeting is held, will a translator be provided if requested?
Yes No
(f) Hard copies of the application will be available at the following (check all that apply):
TCEQ Regional Office TCEQ Central Office
Public Place (specify)
Section 7. Voluntary Submittal
For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.
Will you provide notice of this application, including notice in alternative languages?  Yes No
What types of notice will be provided?
Y Publish in alternative language newspaper
Posted on Commissioner's Integrated Database Website
Mailed by TCEQ's Office of the Chief Clerk
Other (specify)

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If the site has a physical address such as 12100 Park 35 Circle, Austin, TX 78753, complete Item 1. If the site does not have a physical address, provide a location description in Item 2. Example: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1. **Item 1: Physical Address of Project or Site:** Street Number and Name: 3502 CR 209 City, State and Zip Code: Hico, TX 76457 **Item 2: Site Location Description:** Location description: Click here to enter text. City where the site is located or, if not in a city, what is the nearest city: Click here to enter te l Zip Code where the site is located: Click here to enter text. **D.** County or counties if more than 1: Erath E. Latitude: 32.150555 Longitude: 98.072222 **F.** Animal Type:  $\boxtimes$ Dairy-0241 Sheep/Goats-0214 Beef Cattle- 0211 Auction-5154 Swine-0213 Other, specify: Click here to enter text. Broiler-0251 Laying Hens-0252 G. Existing Maximum Number of Animals: 3,000 (Total) 3,000 (Milking) Proposed Maximum Number of Animals: 4,500 (Total) 4,000 (Milking) H. What is the total LMU acreage? 372 **SECTION 11. MISCELLANEOUS INFORMATION** A. Did any person who was formerly employed by the TCEQ represent your company and get paid for service regarding this application? Yes  $\square$ No ⊠ If yes, provide the name(s) of the former TCEQ employee(s): Click here to enter text. **B.** Is the facility located on Indian Country Lands? Yes □ No 🖾 If ves. do not submit this application. You must obtain authorization through EPA Region 6.

D. 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 here to enter text.

**C.** Is the production area located within the protection zone of a sole source drinking water

No ⊠

supply?

Yes □

E.	Delinquent Fees and Penalties:		
	Do you owe fees to the TCEQ?	Yes □	No ⊠
	Do you owe any penalties to the TCEQ?	Yes □	No ⊠
	If you answered yes to either of the above que fee or penalty, and an identifying number.	stions, pro	ovide the amount owed, the type of

#### SECTION 12. AFFECTED LANDOWNER INFORMATION

This section must be completed if the application type is new or major amendment. If the application type is renewal or minor amendment, skip to Section 13.

- **A.** Landowner map. Attach a landowner map or drawing, with scale, that includes the following. Each landowner should be designated by a letter or number on both the list and the map.
  - The applicant's property boundaries, including onsite and offsite LMUs; and
  - The property boundaries of all landowners within 500 feet of the applicant's property.
- **B.** Landowner list. Attach a separate list of the landowners' names and mailing addresses. The list must be cross-referenced to the landowners map.
- list must be cross-referenced to the landowners map.
  - ☑ Read/Writeable CD☐ 4 sets of mailing labels

**C.** Landowner list media. Indicate the format of the landowners list.

**D.** Landowner data source. Provide the source of the landowners' names and mailing addresses.

Erath County Appraisal District, March 2025

#### **SECTION 13. ATTACHMENTS**

#### A. All applications

- Supplemental Permit Information Form, if required by instructions on that form
- Current copy of tax records or deed showing ownership of the land
- Lease agreement, if LMUs are not owned by the applicant or co-applicant

#### B. New, Major amendment, or Renewal

• Completed Technical Information Packet (TCEQ-00760).

#### C. New and Major amendment

• Public Involvement Plan Form (TCEQ-20960)

#### D. Minor Amendment

Attach the following items if applicable:

- Current vicinity map, site map, runoff control map, and LMU map
- RCS design calculations
- Nutrient Management Plan or Land application rate calculations
- Other technical documents affected by the proposed amendment

#### SIGNATURE PAGE

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

Permit Number: <u>WQ0003160000</u> Applicant: <u>Hillside Dairy, LLC</u>

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

Signatory Name: Clemens Kuiper, for Hillside Dairy, LLC

§305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

County, Texas

#### TCEO USE ONLY

Application type:	□ Renewal	□ Major Amendment	□ Minor Amendment	□ New
County:		Admin Complete Date:		
Agency Receiving	SPIF: □ Texas	Historical Commission	$\square$ U.S. Fish and Wile	dlife
	□ Tex	kas Parks and Wildlife	☐ Army Corps of E	ngineers

#### SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

# This form is required for all TPDES applications

- 1. Applicant: Hillside Dairy, LLC
- 2. Permit Number: WQ0003160000 EPA ID Number: TX0130893
- 3. Address of the project (location description that includes street/highway, city/vicinity, and county). The facility is located on the West side of County Road 209, approximately 1.5 miles South of the intersection of County Road 209 and US Highway 67, approximately 7 miles Southeast of Stephenville, Erath County, Texas.
- 4. Provide the name, address, telephone and fax number of an individual that can be contacted to answer specific questions about the property.

First and Last Name: Corey Mullin

Company Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City, State, and Zip Code: Dublin, TX 76446

Phone Number: 254/965-3500 Fax Number: 254/965-8000

- 5. County where the facility is located: Erath
- 6. If the property is publicly owned and the owner is different than the permittee/applicant, please identify the owner. n/a
- 7. Identify the name of the water body (receiving waters) and TCEQ segment number that will receive the discharge. North Bosque River in Segment No. 1226 of the Brazos River Basin
- 8. Provide a 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. (This map is required in addition to the map in the administrative report.)
- 9. Provide photographs of any structures 50 years or older on the property.
- 10. Does your project involve any of the following? Select all that apply.
  - ☐ Proposed access roads, utility lines, and 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 of caves, fractures, sinkholes, or other karst features
  - ☐ Disturbance of vegetation or wetlands
- 11. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves or other karst features): <u>Construction of a new parlor</u>, freestall barns and

#### expansion of RCS #2.

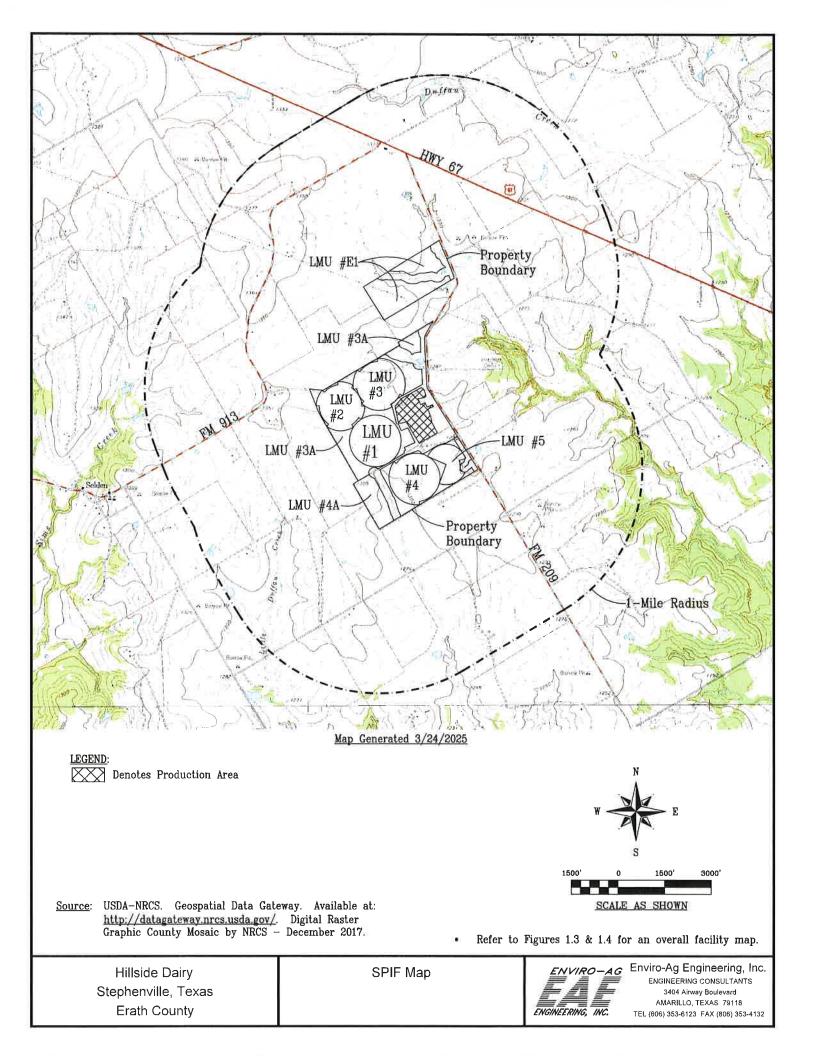
12. Describe existing disturbances, vegetation & land use (plowing, other ground disturbances): The LMUs at the facility are planted in Coastal Bermuda grass and corn and normal expected farming practices to maintain this crop will be utilized.

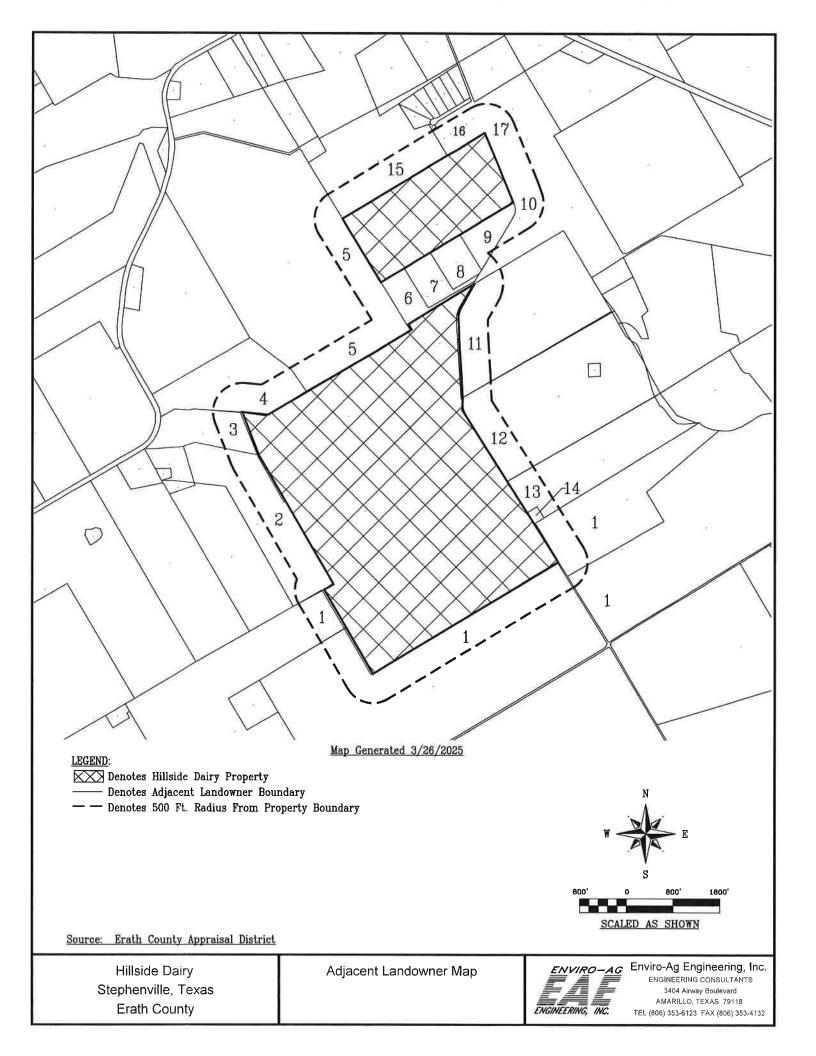
#### The following applies to New TPDES and Major Amendment to TPDES Permits:

- 13. List construction dates of any buildings or structures on the property: Unknown
- 14. Provide a brief history of the property, and name of the architect/builder, if known: Unknown

#### The following applies to New, Amended and Renewal TPDES applications:

- 15. List each Retention Control Structure and its required capacity (Acre Feet).  $\underline{RCS \# 1 21.46}$  and RCS # 2 30.28
- 16. Provide the location and number of acres where wastewater and manure are land applied: The applicant has 372 acres for waste and wastewater application. See Attached Figure 1.3 for exact LMU location.
- 17. List the maximum number of head to be permitted. 4,500





# ADJACENT LANDOWNERS LIST

Name <u>David R. Carey</u> Number on Map <u>1</u> Address <u>1343 CR 230</u> Address <u>Hico, TX 76457</u>	Name <u>Inocencio &amp; Hilda E Lorta</u> Number on Map 9 Address 1950 CR 209 Address Hico, TX 76457
Name Sherwyn D & Angela Wood Number on Map 2 Address 757 CR 229 Address Stephenville, TX 76401	Name Mollie Shaw Number on Map 10 Address 1516 Valley View Drive Address Joshua, TX 76058
Name Wesley Wood Cattle Company. Number on Map 3 Address 13305 S US Hwy 281 Address Stephenville, TX 76401	Name Sallie Laura Burleson Number on Map 11 Address 2333 CR 209 Address Hico, TX 76457
Name Green Cow Compost Frank Kalsbeek Number on Map 4 Address P.O. Box 449 Address Dublin, TX 76446	Name Randy Wyly Number on Map 12 Address 295 Lindsey Lane Address Stephenville, TX 76401
Name <u>Kalsbeek Family Trust</u> Number on Map 5 Address <u>8304 FM 913</u> Address <u>Stephenville, TX 76401</u>	Name <u>Jewell Littlefield</u> Number on Map <u>13</u> Address <u>3717 CR 209</u> Address <u>Hico, TX 76457</u>
Name Gerardo O Gonzales Number on Map 6 Address 52916 Kayak Ave Address Kenai, AK 99611	Name Betty Lollar Number on Map 14 Address 3781 CR 209 Address Hico, TX 76457
Name <u>Jose Ortiz</u> Number on Map Z Address <u>13881 CR 209</u> Address <u>Hico, TX 76457</u>	Name <u>BVSS Holdings</u> , <u>LLC</u> Number on Map <u>15</u> Address <u>21351 N US 377</u> Address <u>Stephenville</u> , <u>TX 76401</u>
Name Cody Dale Atherton Number on Map 8 Address P.O. Box 1734 Address Stephenville, TX 76401	Name Gerardo Vazquez Number on Map 16 Address 1959 CR 208 Address Hico, TX 76457

Please identify where you obtained the landowner information.

Erath County Appraisal District; March, 2025

Facility Name <u>Hillside Dairy</u>

# ADJACENT LANDOWNERS LIST

Name <u>Candelario &amp; Josefina Guiterrez</u>	Name
Number on Map <u>17</u>	Number on Map
Address <u>360 PR 1652</u>	Address
Address <u>Hico, TX 76457</u>	Address
Name	Name
Number on Map	Number on Map
Address	Address
Address	Address
Name	Name
Number on Map	Number on Map
Address	Address
Address	Address
Name	Name
Number on Map	Number on Map
Address	Address
Address	Address
Name Number on Map Address Address	Name Number on Map Address Address
Name	Name
Number on Map	Number on Map
Address	Address
Address	Address
Name	Name
Number on Map	Number on Map
Address	Address
Address	Address
Name	Name
Number on Map	Number on Map
Address	Address
Address	Address

Please identify where you obtained the landowner information.

Erath County Appraisal District; March, 2025

Facility Name <u>Hillside Dairy</u>





## **Franchise Tax Account Status**

As of: 03/28/2025 11:20:29

This summary page is designed to satisfy standard business needs. If you need to reinstate or terminate a business with the Texas Secretary of State, you must obtain a certificate specific to that purpose.

#### HILLSIDE DAIRY, LLC

Texas Taxpayer Number 32047193472

Mailing Address 1865 PR 1233 HICO, TX 76457

**9** Right to Transact Business in ACTIVE

Texas

State of Formation TX

**SOS Registration Status** 

(SOS status updated each business ACTIVE

day)

Effective SOS Registration Date 03/02/2012

Texas SOS File Number 0801559806

Registered Agent Name CLEMENS KUIPER

Registered Office Street Address 1865 PR 1233 HICO, TX 76457

# **Public Information Report**

Public Information Report HILLSIDE DAIRY, LLC Report Year :2024

Information on this site is obtained from the most recent Public Information Report (PIR) processed by the Secretary of State (SOS). PIRs filed with annual franchise tax reports are forwarded to the SOS. After processing, the SOS sends the Comptroller an electronic copy of the information, which is displayed on this web site. The information will be updated as changes are received from the SOS.

You may order a copy of a Public Information Report from <a href="mailto:open.records@cpa.texas.gov">open.records@cpa.texas.gov</a> or Comptroller of Public Accounts, Open Records Section, PO Box 13528, Austin, Texas 78711.

Title Name and Address

MEMBER CLEMENS KUIPER 1865 PR 1233 HICO, TX 76457 3/28/25, 10 14 AM

about Mank

■ Property Details

Account

Property ID:

R000024503

Geographic ID: R\_0644.00110.00.0

Type: Property Use: Real

Zoning: Condo:

Location

3844 CR209 Situs Address:

Map ID: 18-16-3 Mapsco:

Acres 137,960, A0644 REED JOHN N; HOUSE & SHOP Legal Description:

Abstract/Subdivision:

Owner

Name:

HILLSIDE DAIRY LLC

Agent:

Mailing Address:

1865 PR1233 HICO, TX 76457

% Ownership:

100.00%

Exemptions:

SHED

SHOP

SHED

SHOP

For privacy reasons not all exemptions are shown online,

■ Property Values

Improvement Homesite Value: N/A (+) Improvement Non-Homesite Value: N/A (+) Land Homesite Value: N/A (+) Land Non-Homesite Value: N/A (+) Agricultural Market Valuation: N/A (+)

Market Value: N/A (=) Agricultural Value Loss:@ N/A (-)

about blank

<b>■</b> Prope	erty Improvement - Building		
Type: MA	State Code: E Value: N/A		
Туре	Description	Year Built	SQFT
MA	MAIN AREA	1991	2,584,00
Р	COVERPORCH	1991	120.00
SWP	SWIM POOL	2008	1.00
WP	WHIRLPOOL	2008	1.00
STC40	STORAGE CONTAINER 40FT	2011	320.00
DCPP	DTCARPORT+	2018	1,020.00
STG	STRG BUILDING	2019	150.00
UTIL1	UTILITIES 1	1991	1,00
Type: SH	ED State Code: E Value: N/A		
Type	Description	Year Built	SQFT

_							
<b>■</b> P	roperty Land						
Type	Description	Acreage	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
SAE		136.96	5,965,978.00	0.00	0.00	N/A	N/A
SAE		1.00	43,560.00	0.00	0.00	N/A	N/A

2016

2016

1,200.00

2,400,00

3/28/25, 10:14 AM about blank

Appraised Value: 0 N/A (=) HS Cap Loss: @ N/A (-) CB Cap Loss: 0 N/A (-)

Assessed Value: N/A Ag Use Value: N/A

Information provided for research purposes only. Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy

#### ■ Property Taxing Jurisdiction

Owner: HILLSIDE DAIRY LLC %Ownership: 100,00%

Entity	Description	Market Value	Taxable Value
072	ERATH COUNTY	N/A	N/A
903	STEPHENVILLE ISD	N/A	N/A
MTD	MIDDLE TRINITY WATER	N/A	N/A
RER	ERATH ROAD & BRIDGE	N/A	N/A

3/25, 10:14	IAM		about blank			
<b>P</b> Pro	perty Roll Value	History				
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assessed
2025	N/A	N/A	N/A	N/A	N/A	N/A
2024	\$417,710	\$689,800	\$25,840	\$1,107,510	\$49,019	\$393,291
2023	\$341,090	\$724,800	\$22,930	\$1,065,890	\$53,480	\$350,540
2022	\$309,530	\$709,800	\$30,430	\$1,019,330	\$30,270	\$334,690
2021	\$246,640	\$563,840	\$32,520	\$810,480	\$0	\$295,160
2020	\$232,340	\$550,140	\$31,860	\$782,480	\$0	\$280,200
2019	\$198,820	\$550,140	\$32,140	\$748,960	\$0	\$246,960
2018	\$181,050	\$501,360	\$31,650	\$682,410	\$0	\$228,700
2017	\$173,430	\$407,890	\$32,790	\$581,320	\$0	\$222,220
2016	\$140,870	\$354,500	\$31,920	\$495,370	\$0	\$187,790
2015	\$135,470	\$354,500	\$22,840	\$489,970	\$0	\$173,310
2014	\$135,470	\$329,510	\$21,640	\$464,980	\$0	\$172,110

■ Prope	rty De	eed History					
Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Number
7/17/2024			WYLY RANDY EARL	HILLSIDE DAIRY LLC			2024- 03979
1/1/1968	WD		WYLY GRADY	WYLY GRADY;JOYCE & RANDY EARL	686	215	
5/13/1998			WYLY GRADY;JOYCE & RANDY EARL	WYLY RANDY EARL	955	399	

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■ Property Details

Property ID:

R000015616

Geographic ID: R\_0057,00250,00,0

Type:

Real

Zoning: Condo:

Mapsco:

Property Use:

Location

Situs Address: 3440 CR209

Map ID: 18-16-3

Acres 244,710, A0057 BABCOCK D W & R A BAKER; & DAIRY BARN Legal Description:

Abstract/Subdivision:

Name:

HILLSIDE DAIRY LLC

Agent:

Mailing Address:

1865 PR1233 HICO, TX 76457

% Ownership:

100,00%

Exemptions:

For privacy reasons not all exemptions are shown online,

■ Property Values

Improvement Homesite Value: N/A (+) N/A (+) Improvement Non-Homesite Value: Land Homesite Value: N/A (+) Land Non-Homesite Value: N/A (+) Agricultural Market Valuation: N/A (+)

Market Value: Agricultural Value Loss:@ N/A (=) N/A (-)

about blank

3/28/25 10:14 AM about blank

Appraised Value: 2 N/A (=) HS Cap Loss: 0 N/A (-) CB Cap Loss: 0 N/A (-)

Assessed Value:

Ag Use Value; N/A

N/A

Information provided for research purposes only, Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy.

■ Property Taxing Jurisdiction

Owner: HILLSIDE DAIRY LLC %Ownership: 100.00%

Entity	Description	Market Value	Taxable Value
072	ERATH COUNTY	N/A	N/A
903	STEPHENVILLE ISD	N/A	N/A
MTD	MIDDLE TRINITY WATER	N/A	N/A
RER	ERATH ROAD & BRIDGE	N/A	N/A

R Prope	erty Improvement - Building		
	RN State Code: D2 Value: N/A		
Туре	Description	Year Built	SQF
BARN	BARN	1999	27,600.0
SHED	SHED	2023	1,440.0
BARN	BARN	2000	27,600.0
WTN	WATRTANKNO	1990	965_0
WTN	WATRTANKNO	1999	965.0
WTN	WATRTANKNO	1999	965,0
FSL	LOCKED FEED STANCHION	1999	300.0
MT	MILK TANK	1999	1,0
MT	MILKTANK	1999	1,0
SHED	SHED	2023	1,200,0
Type: BA	RN State Code: D2 Value: N/A		
Туре	Description	Year Built	SQF
BARN	BARN	2001	62,000.0
AF	AUTO FEEDER	2001	0.0
FSL	LOCKED FEED STANCHION	2000	600,0
FSL	LOCKED FEED STANCHION	2001	600.0
BARN	BARN	2008	62,000.0
FSL	LOCKED FEED STANCHION	2008	600.0
FSL	LOCKED FEED STANCHION	2008	600.0
STC40	STORAGE CONTAINER 40FT	1988	320,0
SHED	SHED	1999	4,598.0
Type: DB	State Code: D2 Value: N/A		
Туре	Description	Year Built	SQF
DB	DAIRY BARN	1990	3,800,0
CHP	HOLD PEN COVERED	1990	3,800,0

OP	OPEN PATIO	1984	80.00
WH	WELLHOUSE	1984	80.00 45.00
UTIL1	UTILITIES 1	2023	1.00
Type: BAR	N State Code: D2 Value: N/A		
Туре	Description	Year Built	SQFT
BARN	BARN		320.00
SHED	SHED	1990	280.00
SHED	SHED	2024	400,00
SHED	SHED	2024	400.00
Type: OLD	State Code: D2 Value; N/A		
Туре	Description	Year Built	SQFT
OLD	OLDHOUSE		1,460.00
Р	COVERPORCH		104.00
BARN	BARN		960.00
SHED	SHED		112.00
			112.00
	State Code: D2 Value: N/A		
Туре	Description	Year Built	SQFT
HAY	HAYBARN		1,046,00

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32023, TV. 14 ANI				BDOUL,	plans		
Type	Description	Acreage	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
SAE		243.71	10,616,008.00	0.00	0.00	N/A	N/A
SAE		1.00	43,560.00	0.00	0.00	N/A	N/A

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■ Property Roll Value History										
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assessed				
2025	N/A	N/A	N/A	N/A	N/A	N/A				
2024	\$1,048,870	\$196,900	\$11,440	\$1,245,770	\$0	\$892,468				
2023	\$713,190	\$196,900	\$11,200	\$910,090	\$0	\$724,390				
2022	\$711,690	\$196,900	\$11,990	\$908,590	\$0	\$723,680				
2021	\$480,440	\$157,520	\$12,500	\$637,960	\$0	\$492,940				
2020	\$480,440	\$153,580	\$12,340	\$634,020	\$0	\$492,780				
2019	\$385,330	\$153,580	\$12,280	\$538,910	\$0	\$397,610				
2018	\$384,730	\$143,830	\$12,270	\$528,560	\$0	\$397,000				
2017	\$337,860	\$117,460	\$12,390	\$455,320	\$0	\$350,250				
2016	\$337,860	\$3,500	\$630	\$341,360	\$0	\$338,490				
2015	\$337,860	\$3,500	\$630	\$341,360	\$0	\$338,490				
2014	\$337,860	\$3,500	\$630	\$341,360	\$0	\$338,490				

■ Prope	rty Do	eed History					
Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Number
7/17/2024			WYLY RANDY EARL	HILLSIDE DAIRY LLC			2024- 03979
3/13/1969			WYLY LEWIS J & VERNA LEE	WYLY GRADY E & JOYCE M	434	388	
1/1/1900			WYLY GRADY E	WYLY RANDY EARL	941	184	

3/28/25, 10:14 AM

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■ Property Details

Account

Property ID:

R000016308

Geographic ID: R.0100,00025,00,0

Type: Property Use: Real

Zoning: Condo:

Location

Situs Address:

2930 CR209

Map ID: 18-16-3 Mapsco:

Legal Description: Acres 20,000, A0100 BAKER ROBERT A; WH & MH SITE (JESUS TOBIAS)

Abstract/Subdivision:

Owner Name:

HILLSIDE DAIRY LLC

Agent:

Mailing Address:

1865 PR1233 HICO, TX 76457

% Ownership:

100.00%

Exemptions:

SAE

SAE

For privacy reasons not all exemptions are shown online.

#### ■ Property Values

Improvement Homesite Value:	N/A (+)
Improvement Non-Homesite Value:	N/A (+)
Land Homesite Value:	N/A (+)
Land Non-Homesite Value:	N/A (+)
Agricultural Market Valuation:	N/A (+)
Market Value:	N/A (=)
Agricultural Value Loss: <b>⊙</b>	N/A (-)

about blank

3/28/25, 10 14 AM about blank Property Improvement - Building Type: WH State Code; D2 Value: N/A Туре Description Year Built SQFT WH WELLHOUSE 2016 64.00 UTIL1 UTILITIES 1 2023 1.00 Property Land Type Description Acreage Sqft Eff Front Eff Depth Market Value Prod. Value

0.00

0.00

0.00

0.00

N/A

N/A

N/A

N/A

19.00 827.640.00

43,560,00

1,00

3/28/25, 10:14 AM Appraised Value: N/A (=) HS Cap Loss: 0 N/A (-) CB Cap Loss: 0 N/A (-) Assessed Value: N/A Ag Use Value: N/A

Information provided for research purposes only, Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy.

#### ■ Property Taxing Jurisdiction

3/28/25, 10:14 AM

2014

\$6,590

\$70,990

Owner: HILLSIDE DAIRY LLC %Ownership: 100.00%

Entity	Description	Market Value	Taxable Value
072	ERATH COUNTY	N/A	N/A
903	STEPHENVILLE ISD	N/A	N/A
MTD	MIDDLE TRINITY WATER	N/A	N/A
RER	ERATH ROAD & BRIDGE	N/A	N/A

about blank 2/4

<b>■</b> Pro	perty Roll Value	e History				
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assessed
2025	N/A	N/A	N/A	N/A	N/A	N/A
2024	\$30,910	\$105,650	\$1,930	\$136,560	\$0	\$37,840
2023	\$910	\$140,650	\$1,730	\$141,560	\$0	\$42,640
2022	\$910	\$125,650	\$2,050	\$126,560	\$0	\$27,960
2021	\$730	\$96,520	\$2,380	\$97,250	\$0	\$19,110
2020	\$730	\$94,510	\$2,190	\$95,240	\$0	\$18,920
2019	\$610	\$94,510	\$2,360	\$95,120	\$0	\$18,970
2018	\$610	\$95,460	\$2,340	\$96,070	\$0	\$18,950
2017	\$17,770	\$83,160	\$2,170	\$100,930	\$0	\$35,940
2016	\$13,630	\$73,210	\$2,150	\$86,840	\$0	\$30,780
2015	\$6,590	\$73,210	\$2,150	\$79,800	\$0	\$23,740

■ Property Deed History									
Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Number		
7/17/2024			WYLY RANDY	HILLSIDE DAIRY LLC			2024- 03979		
12/21/2016			WYLY JOYCE-IND EXE	WYLY RANDY			2016- 07102		
10/20/2006			MORRIS PEGGY LEE WYLE ET AL	WYLY JOYCE-IND EXE	1309	1028			
10/11/2006			WYLY BILLY L ESTATE	MORRIS PEGGY LEE WYLE ET AL	1308	656			
11/12/1981			WYLY LEWIS J & VERNA LEE	WYLY BILLY L	599	68			

\$1,830

\$77,580

\$0

\$23,420

3/28/25 10:15 AM

■ Property Details

Property ID: R000016317 Geographic ID: R.0100,00100.00.0

Type: Property Use: Real

Zoning: Condo:

Location

Situs Address: CR209

Map ID: 18-16-3

Mapsco:

Legal Description: Acres 80,000, A0100 BAKER ROBERT A;

Abstract/Subdivision: /

Name:

HILLSIDE DAIRY LLC

Agent:

1865 PR1233 Mailing Address:

HICO, TX 76457

% Ownership: 100\_00%

Exemptions: For privacy reasons not all exemptions are shown online,

■ Property Values

Improvement Homesite Value: N/A (+) Improvement Non-Homesite Value: N/A (+) Land Homesite Value: N/A (+) Land Non-Homesite Value: N/A (+) Agricultural Market Valuation: N/A (+)

Market Value: N/A (=) Agricultural Value Loss:0 N/A (-)

3/28/25 10:	15 AM			about	blank		
<b>■</b> P	roperty Land						
Туре	Description	Acreage	Sqfl	Eff Front	Eff Depth	Market Value	Prod. Value
SAE		80.00	3,484,800.00	0.00	0.00	N/A	N/A

3/28/25 10:15 AM about blank

Appraised Value: 

O N/A (=) HS Cap Loss: 0 N/A (-) CB Cap Loss: 0 N/A (-)

Assessed Value: N/A Ag Use Value: N/A

Information provided for research purposes only. Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy.

#### ■ Property Taxing Jurisdiction

Owner: HILLSIDE DAIRY LLC %Ownership: 100.00%

Entity	Description	Market Value	Taxable Value
072	ERATH COUNTY	N/A	N/A
903	STEPHENVILLE ISD	N/A	N/A
MTD	MIDDLE TRINITY WATER	N/A	N/A
RER	ERATH ROAD & BRIDGE	N/A	N/A

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■ Property Roll Value History											
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assessed					
2025	N/A	N/A	N/A	N/A	N/A	N/A					
2024	\$0	\$624,000	\$9,760	\$624,000	\$0	\$9,760					
2023	\$0	\$800,000	\$7,600	\$800,000	\$0	\$7,600					
2022	\$0	\$600,000	\$8,800	\$600,000	\$0	\$8,800					
2021	\$0	\$400,000	\$10,080	\$400,000	\$0	\$10,080					
2020	\$0	\$352,000	\$10,720	\$352,000	\$0	\$10,720					
2019	\$0	\$320,000	\$10,640	\$320,000	\$0	\$10,640					
2018	\$580	\$160,000	\$4,640	\$160,580	\$0	\$5,220					
2017	\$420	\$160,000	\$4,320	\$160,420	\$0	\$4,740					
2016	\$420	\$140,000	\$4,280	\$140,420	\$0	\$4,700					
2015	\$420	\$140,000	\$4,280	\$140,420	\$0	\$4,700					
2014	\$420	\$140,000	\$3,640	\$140,420	\$0	\$4,060					

■ Prop	erty [	eed Histor	/				
Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Number
1/1/2025			KUIPER CLEMENS & HEATH HAEDGE				2025-01169
7/5/2018			EDWARDS ADDIE ZELL	KUIPER CLEMENS & HEATH HAEDGE			2018-03785
3/9/2009			EDWARDS DEWEY E & ADDIE ZELL	EDWARDS ADDIE ZELL			
1/9/1978			VLB%EDWARDS DE & DONNIE A	VLB%KOCIAN JERRY J & CATHERINE	555	359	ASSIGNMENT
1/1/1968			KENNEDY ROBERT	EDWARDS DEWEY E & ADDIE ZELL	536	136	

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 1/1/1968
 EDWARDS D E
 KENNEDY ROBERT

about:blank 5/5

3	TATE OF TEXAS PLUGG	ING KEPOKT TOF I	racking #62563
Owner:	Wyly, Randy	Owner Well #:	No Data
Address:	3502 CR 209 Hico, TX 76457	Grld #:	31-56-8
Well Location:	3502 CR 209	Latitude:	32° 09' 16" N
	Hico, TX 76457	Longilude:	098° 04' 30" W
Well County:	Erath	Elevation;	No Data
Well Type:	Withdrawal of Water		

Dritting Information

Company: No Data Date Drilled: No Data Driller: No Data License Number: No Data

Bottom Depth (ft ) Borehole:

Plugging Information

Date Plugged: 2/13/2010 Plugger: Randy Wyly/Land Owner

Plug Method: Tremmle pipe cement from bottom to top

Casing Left in Well: Plug(s) Placed in Well:

Top (ft.) Boltom (ft.) Description (number of sacks & ineternal)

0 100 26 Die (in.) Top (fl.) Bottom (fl.) 4 100 2

The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the stellaments herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal. Certification Data:

Company Information: Landowner Plugged

3502 CR 209 Hico, TX 76457

Driller Name: Randy Wyly License Number: N/A

Added Information for question #12 (Well Owner performaling the plugging) on hard copy of plugging report per lantructions from David Gunn WWD/PI Program Manager.
^EO Comments:

4/8/2019 12:55:34 PM

Plugging Report Tracking Number 62563 Submitted on: 3/26/2010

Pege 1 of 1

wner.	Rendy Wyly	Owner Well #:	No Data
ddress:	3502 CR209 Hico, TX 76457	Grid #:	31-58-8
Vell Location:	3502 CR209	Latitude:	32° 08' 52" N
YOU LOCATION.	Hico, TX 76457	Longitude:	098° 04' 17" W
Vell County:	Erath	Elevation:	No Data

Drilling Information

Company: No Data Date Drilled: No Data Orliter: No Data License Number: No Data

Diameter (in )

Borehole:

Plugging Information

Date Plugged: 5/12/2011 Plugger, Thomas Lange

Plug Melhod: Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet

Casing Left in Well:

Plug(s) Placed in Well:

Dia (in.)	Top (ft.)	Bottom (R.)	Top (fl.)	Bottom (fl.)	Description (number of sacks & meterial)
4	2	70	0	2	1 Bag of Cement
			. 2	70	9 Bage of Bentonite

Certification Data:

The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and corned. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittel.

Company Information: Dowell Water Well Service, Inc

1491 W South Loop Stephenville, TX 78401

Driller Name: Jarrell D Dowell Sr License Number: 4187

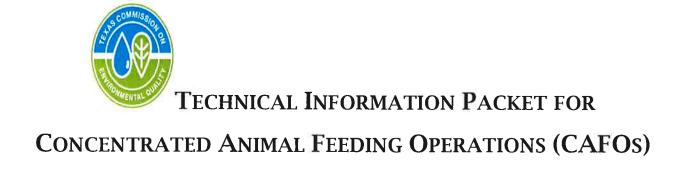
Apprentice Name: Thomas Lange Apprentice Number: 58524

No Data Comments:

4/8/2019 12:54:55 PM

Plugging Report Tracking Number 72165 Submitted on: 5/18/2011

Page 1 of 1





Name of Site: <u>Hillside Dairy</u>

TCEQ Permit Number, if assigned: WQ000 3160000

**Date Prepared:** March 2025

#### SECTION 1. POLLUTANT SOURCES MANAGEMENT

For each potential pollutant source listed in the table below, provide the management practices utilized or enter "Not Applicable". Management practices should address the collection, storage and final disposition of each potential pollutant source. You may attach your list.

**Table 1: Potential Pollutant Sources and Best Management Practices** 

Potential Pollutant Source	Best Management Practices
Manure and Manure Stockpiles	See Attached BMPs
Wastewater	See Attached BMPs
Sludge	See Attached BMPs
Compost	See Attached BMPs
Feed and Bedding	See Attached BMPs
Silage stockpiles	See Attached BMPs
Dead animals	See Attached BMPs
Dust	See Attached BMPs
Lubricants	See Attached BMPs
Pesticides	See Attached BMPs
Bulk cleaning chemicals	N/A
Inorganic fertilizers	N/A
Fuel storage tanks	See Attached BMPs
Other, specify: Parlor Chemicals	See Attached BMPs

#### SECTION 2. RETENTION CONTROL STRUCTURE DESIGN

#### A. Design Summary

1)	Design Standards,	Characteristic,	and Values	Sources Used
----	-------------------	-----------------	------------	--------------

- □ Natural Resource Conservation Service
- oxdot American Society of Agricultural and Biological Engineers
- ☑ Other; specify: Midwest Plan Service

# I. POLLUTANT SOURCES AND MANAGEMENT

# B. For each potential pollutant source, provide the management practices utilized.

from raw material storage. The following practices should be updated in the on-site PPP as changes to facility operating procedures occur. Employee training should be provided upon development & implementation of any BMP. Note: A Best Management Practice, as defined in 30 TAC §321.32(7), is the schedule of activities, prohibitions of practices, maintenance procedures, and other management and conservation practices to prevent or reduce the pollution of water in the state. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge, land application, or drainage

Manure, Sludge, Stockpiles, Slurry,	Temporary ( $<$ 30 days) & Permanent Storage ( $>$ 30 days)
Bedding, Feed Waste & Compost	Store in drainage area of the RCS - OR -
	If not located within drainage area, berm area to contain runoff.
	Annually sample manure/manure stockpiles/compost/slurry for nutrient
	concentrations.
	Manure, Sludge, Slurry and/or Compost -Land application on-site or to third-
	party fields.
	Regular pen maintenance (scraping & drainage)
Dust - Vehicle Traffic	Control speeds around the facility.
	Reduce travel on unpaved facility roads, or manage dust by sprinkling road
	with water and/or a suppressant on an as needed basis.
	Utilize paving products and/or gravel to manage dust on facility roads.
	Utilize dust abatement measures for feed handling equipment, Utilize choke
	feeding when handling feed ingredients & Utilize feed ingredients, such as
Dust - Feed Handling/Processing	moisture or other additives, to manage dust.
Feedstuff/Silage Stockpiles	Contain leachate in an earthen berm or in the RCS
	Minimize feed spoilage & utilize plastic covers or roofed areas for storage
	when applicable.
Lubricants/Pesticides/Herbicides/Parlor Chemicals	Store under roof
	Handle and dispose according to label directions
Fuel Tanks	Provide secondary containment
	Prevent overfills/spills
Wastewater	Store in RCS
	Land application according to NUP/NMP
	Land application will not occur during periods of saturation or frozen
	conditions (except in the event of imminent overflow)
	Annually sample for nutrient concentrations
	Maintain liner and capacity certifications
	Maintain adequate capacity as determined by the pond marker schematic
Dead Animals	Disposed by a third-party rendering service or composted on-site
	Collected within 24 hours of death and disposed within three days of death

2) Total Number of Animals:

In Open Lots: 500 In Buildings: 4,000

3) Animal Housing Location, hours/day:

Open Lots: 21 Buildings: 3

- 4) Average Liveweight, pounds per head: 1,400
- 5) Volatile Solids Removed by Separator System: 50%
- 6) Volatile Solids Loading Rate, lbs/day/1000 ft<sup>3</sup>: <u>5.30</u>

7) Spilled Drinking Water, gallons/day: <u>Included in Cleanup</u>

8) Water for Cleanup, gallons/day: <u>60,000 gal/day</u>

9) Water for Manure Removal, gallons/day: <u>o (Freestall vacuumed)</u>

10) Recycled Wastewater, gallons/day: <u>o</u>

#### B. Wastewater Runoff

- 1) Design Rainfall Amount, inches: 12.1
- 2) Design Rainfall Event:
  - □ 25-year, 24 hour
  - □ Soil Plant Air and Water (SPAW) Field and Pond Hydrology Model
  - ⊠ 25-year, 10 day
  - □ Other; specify: Click here to enter text.

# C. Retention Control Structure(s) (RCS) Volume Allocations

Table 2. RCS Volume Allocations (Acre-Feet)

RCS	Design	Process	Minimum	Sludge	Water	Required	Actual
Name	Rainfall	Generated	Treatment	Accumulation	Balance	Capacity	Capacity
	Event	Wastewater	Volume				
	Runoff						
1	0.00	0.00	18.41	3.05	0.00	21.46	27.95
2	16.09	5.52	0.00	0.08	8.59	30.28	44.05

Indicate which RCSs are in-series: RCS #1 & RCS #2

#### **RCS Liner or Lack of Hydrologic Connection Certification** D.

**Table 3: RCS Hydrologic Connection** 

RCS Name	Construction Date	Type of Hydrologic Connection
		Certification
RCS #1	2007	Liner, Cert., Norman Mullin, P.E. 2007
RCS #2	2010	Liner, Cert., Norman Mullin, P.E. 2010
Slurry Storage Pit	2018	Liner, Cert., Norman Mullin, P.E. 2018

E.	$\mathbf{P}$	laya	La	kes
----	--------------	------	----	-----

	1100 11 2		_010						
	Slurry	urry Storage Pit		2018			Liner,	Cert., No	rman M
I	E. Pl	laya L	akes						
	Ar	re any	playa lak	kes used	for R	.CSs?		Yes □	No ⊠
S	ECTION	<b>3.</b> M.	ANURE,	SLUDGE	E, AN	D WASTE	WATER	HAND	LING
A	. M	anur	e:						
	1)	Use	or Dispo	osal Met	hod:				
		$\boxtimes$	Land Ap	plicatio	n to I	LMUs			
		$\boxtimes$	Transfe	r to othe	r per	sons			
		$\boxtimes$	Third Pa	arty Fielo	ls				
			Other; s	pecify: {	lick l	nere to em	er text.		
	2)	Lan	Land Application Location:						
		$\boxtimes$	Onsite		$\boxtimes$	Offsite □	Not A	pplicabl	.e
	3)	Cor	nposting	Locatio	n:				
		$\boxtimes$	Onsite [	□ Offsi	te 🗆	Not Appl	icable		
E	B. Sl	udge	:						
	1)	Use	or Dispo	osal Metl	hod:				
		$\boxtimes$	Land Ap	plicatio	n to I	_MUs			
		$\boxtimes$	Transfer	r to othe	r per	sons			
		$\boxtimes$	Third Pa	arty Fielo	ls				
			Other; s	pecify:	lick	nere to ent	er teyt.		
	2)	Lan	d Applic	ation Lo	catio	n:			
		$\boxtimes$	Onsite 2	⊠ Offsi	te 🗆	Not App	licable		

#### C. Wastewater:

T)	Use or Disposal Method:					
	$\boxtimes$	Land Application to LMUs				
		Total Evaporation				
		Third Party Fields				
		Other; specify: Click here to enter text.				

# 2) Land Application Location:

oximes Onsite oximes Offsite oximes Not Applicable

# D. Land Application Summary from the Nutrient Management Plan

For each Land Management Unit (LMU), provide the name, acre, crops/yield goals and application rates on Table 4 below. Add rows if needed or attach additional pages.

Table 4: Land Management Unit Summary from the Current NMP

LMU Name	Acre	Crop(s) and Yield Goal(s)	Application Rate (Ac- ft/Ac/Year OR Tons/Ac/Year)
1	50	Coastal Hay 4 Cut, SG Mod Graze M	0.283 ac-ft/ac/yr
2	39	Coastal Hay 4 Cut, SG Mod Graze M	0.283 ac-ft/ac/yr
3	47	Coastal Hay 4 Cut, SG Mod Graze M	0.617 ac-ft/ac/yr
3A	65	Coastal Hay 4 Cut, SG Mod Graze M	30.9 tons/ac/yr
4	48	Coastal Hay 4 Cut, SG Mod Graze M	0.275 ac-ft/ac/yr
4A	42	Coastal Hay 4 Cut, SG Mod Graze M	84.1 tons/ac/yr
5	21	Coastal Hay 4 Cut, SG Mod Graze M	0.492 ac-ft/ac/yr
E1	60	Coastal Hay 4 Cut, SG Mod Graze M	34.6 tons/ac/yr

- 1) Wastewater production, ac-in/year: 1,173.96 ac-in/yr (Table 2.3 Col. 4)
- 2) Estimated Wastewater application, ac-in/year: <u>934.20 ac-in/yr (Table 2.3 Col. 10)</u>
- 3) Manure production, tons/year: 15,604 dry/tons/yr (Table 2.1)
- 4) Estimated manure application, tons/year: <u>951.45 tons/yr (NMP)</u>
- 5) Estimated manure transferred to other persons, tons/year: 14,652.5 tons/yr (NMP)

# **E.** Floodplain Information

1) Is any part of the production area within a 100-year floodplain? Yes  $\square$  No  $\boxtimes$  If YES, describe management practices to protect the sites. Click here to enter text.

2) Is land application or temporary storage of manure in a 100-year floodplain or near a water course? Yes  $\boxtimes$  No  $\square$ 

If YES, describe management practices. <u>Vegetative buffers shall be maintained between</u> all waters of the state and any waste/wastewater application.

#### F. Soil Limitations

**Table 5: Soil Limiting Characteristics and Best Management Practices** 

Soil Types	Limiting Characteristics	Best Management Practices
PcC, PcB	Depth to Hard Bedrock Droughty Slow Water Movement	<ul> <li>- Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP).</li> <li>- No land application to inundated soils.</li> <li>- Land Application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients.</li> <li>- Maintain cover crop in LMUs.</li> <li>- Maintain soil moisture to promote crop growth.</li> </ul>
НоА, НоВ	Slow Water Movement	- Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP) No land application to inundated soils.
Ma	Droughty Depth to Hard Bedrock	<ul> <li>- Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP).</li> <li>- No land application to inundated soils.</li> <li>-Maintain cover crop in LMUs.</li> <li>-Maintain soil moisture to promote crop growth.</li> </ul>
Pd	Droughty Depth to Bedrock Slow Water Movement Large Stones	<ul> <li>- Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP).</li> <li>- No land application to inundated soils.</li> <li>- Maintain cover crop in LMUs.</li> <li>- Maintain soil moisture to promote crop growth.</li> </ul>

#### G. Well Protection

**Table 6: Water Well Status and Protective Measures** 

Well ID	Well Type	Producing or Non-	Open, Cased,	Protective
Number		Producing	or Capped	Measures
1	Domestic	Producing	Cased	Maintain 150-ft
				buffer
2	Domestic	Non-Producing	Cased	See Attached
				Plugging Report

Well ID	Well Type	Producing or Non-	Open, Cased,	Protective
Number	Wen Type	Producing	or Capped	Measures
3	Domestic	Producing	Cased	To Be Plugged
4	Domestic	Producing	Cased	See Attached
				Approved Well
				Buffer Exception
5	Domestic	Producing	Cased	See Attached
				Approved Well
				Buffer Exception
6	Domestic	Producing	Cased	Maintain 150-ft
				buffer
7	Domestic	Producing	Cased	Maintain 150-ft
				buffer
8	Domestic	Non-Producing	Cased	See Attached
				Plugging Report
9	Domestic	Producing	Cased	See Attached
				Approved Well
				Buffer Exception
10	Domestic	Producing	Cased	Maintain 150-ft
				buffer

#### **SECTION 4. AIR AUTHORIZATION SUMMARY**

# A. Type of Air Authorization

🖂 Air Standard Permit in 3	30 TAC § 321.43
----------------------------	-----------------

- ☐ Permit By Rule in 30 TAC Chapter 106 Subchapter F
- ☐ Individual Air Quality Permit

If Air Standard Permit is selected, then complete Sections B and C below.

# B. Indicate the AFO Status and Buffer Option.

	•	tion started after August 19, 1998: ½ mile buffer*
		¼ mile buffer* and an odor control plan
$\boxtimes$	-	tion started on or before August 19, 1998: $\frac{1}{4}$ mile buffer*
		odor control plan

\*A written letter of consent from an affected landowner may be used in lieu of meeting the buffer distances specified.

# C. Odor Receptors

Identify the number of occupied residences or business structures, schools (including associated recreational areas), places of worship, or public parks located within the following distances from permanent odor sources as defined in 30 TAC §321.32(43):

0 - ¼ mile: 2 (2 Applicant Owned)

¼ - ½ mile: <u>5</u>

½ - 1 mile: <u>18</u>

#### **SECTION 5. ATTACHMENTS**

#### A. Maps

- 1) Site Map
- 2) Land Management Unit Map
- 3) Vicinity Map
- 4) Original United States Geological Survey 7.5 Minute Quadrangle Map
- 5) 100 Year Floodplain Map (if applicable)
- 6) Runoff Control Map
- 7) Natural Resource Conservation Service (NRCS) Soil Survey Map

#### **B.** Professional Certifications

- 1) Recharge Feature Certification Statement and Supporting Documents
- 2) RCS Design Calculations (Water Nutr, Animal Waste Management (AWM), or equivalent)
- 3) RCS As-Built Capacity Certifications (if constructed)
- 4) RCS Hydrologic Connection Certifications (if constructed)

## C. Land Application

- 1) Nutrient Management Plan
- 2) Nutrient Utilization Plan. If the NUP is already approved, include the approval letter.
- 3) Copy of Annual Soil Sampling Analyses (used for the NMP that was submitted with the application)

Copy of Annual Manure and Wastewater Analyses (used for the NMP that was 4) submitted with the application

#### Air Standard Permit Documentation (if required) D.

- 1)
- 2)
- Area Land Use Map, Odor Control Plan, if applicable Written Consent Letters, if applicable 3)

#### **Groundwater Monitoring (if required)** E.

- 1) Groundwater Monitoring Plan
- Groundwater Monitoring Analyses 2)

# 1.0 FACILITY MAPS

# 1.1 Vicinity Map

Figure 1.1, Vicinity Map, is a general highway map generated in AutoCAD using Tiger Primary and Secondary roads data from geospatial Data Gateway at http://datagateway.nrcs.usda.gov/ (retrieved 2019). The location of the facility is depicted on the map.

# 1.2 USGS Quadrangle Map

Figure 1.2, entitled 7.5-Minute USGS Map is a seamless, high-quality copy of the 7.5-minute USGS quadrangle map (Johnsville TX, quadrangle) that shows the boundaries of land owned, operated, or controlled by Hillside Dairy, LLC and used as part of the concentrated animal feeding operation; and all springs, lakes, or ponds located on-site and within 1 mile of the property boundary.

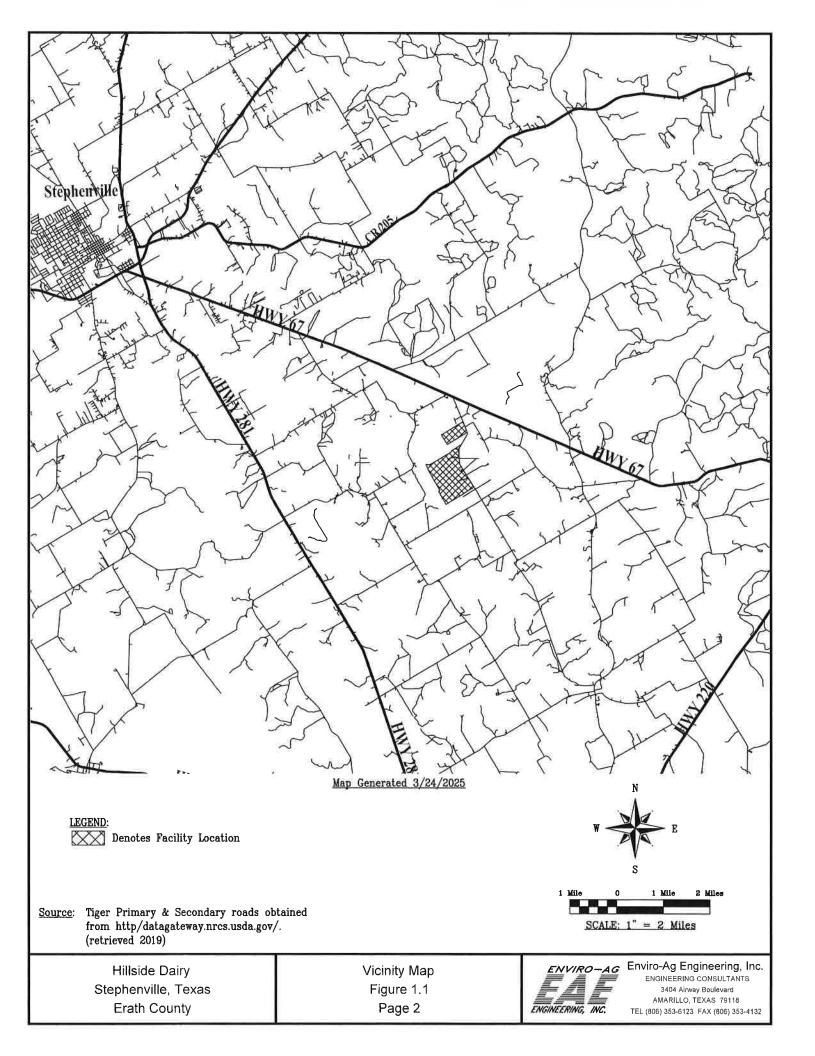
# 1.3 Site Map

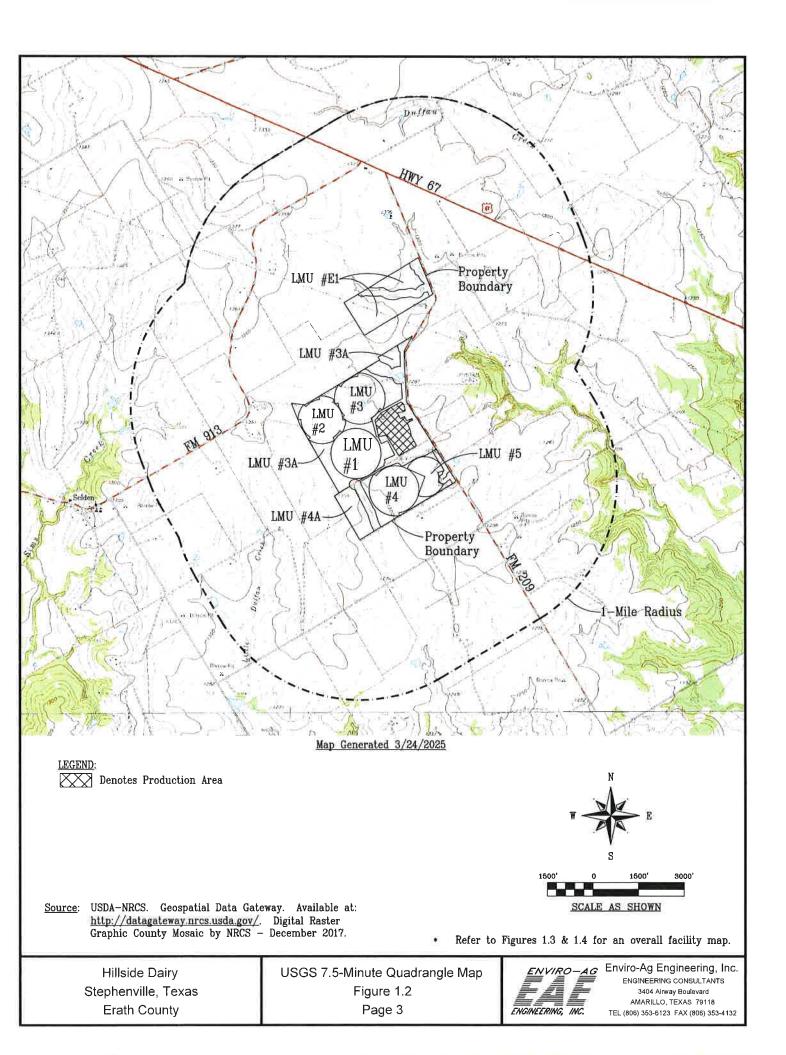
Figure 1.3, Site Map, is a scaled drawing of the entire property to be permitted showing the locations of the following information:

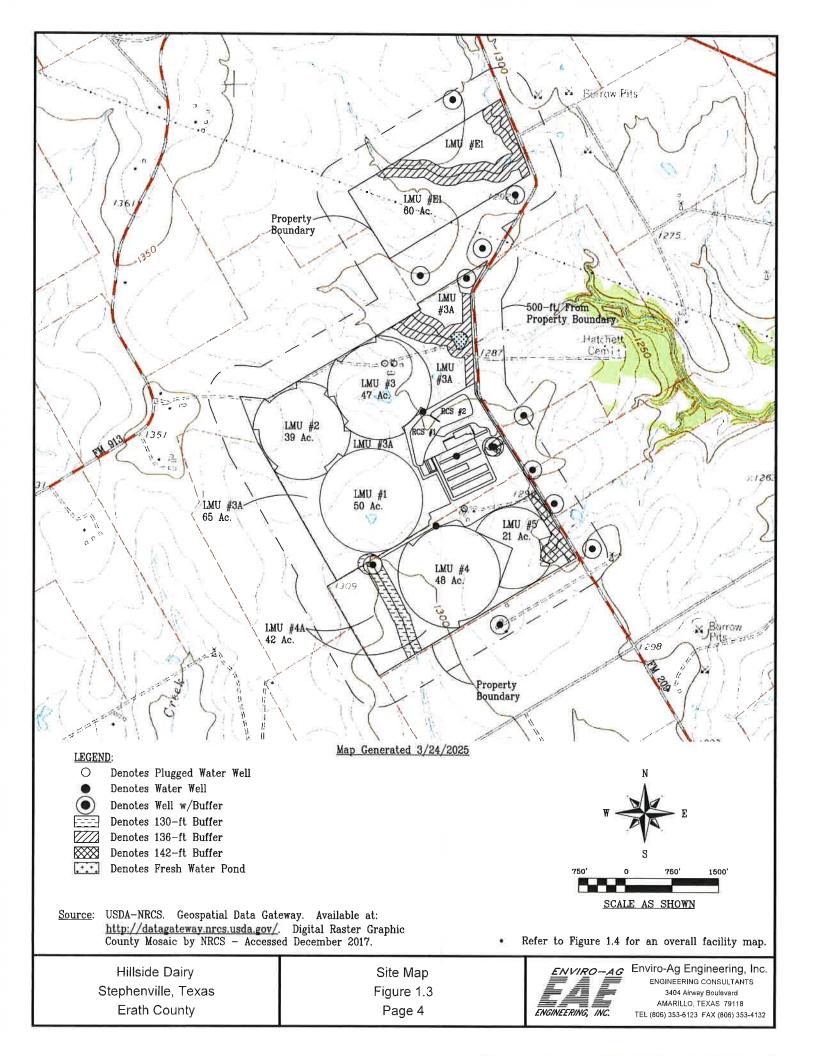
- Pens
- Barns
- Retention Control Structures
- Land Management Units
- Buffer zones
- Wells
- Freshwater Ponds
- Berms/Diversions
- Milking Parlor
- Manure/Compost Storage Areas

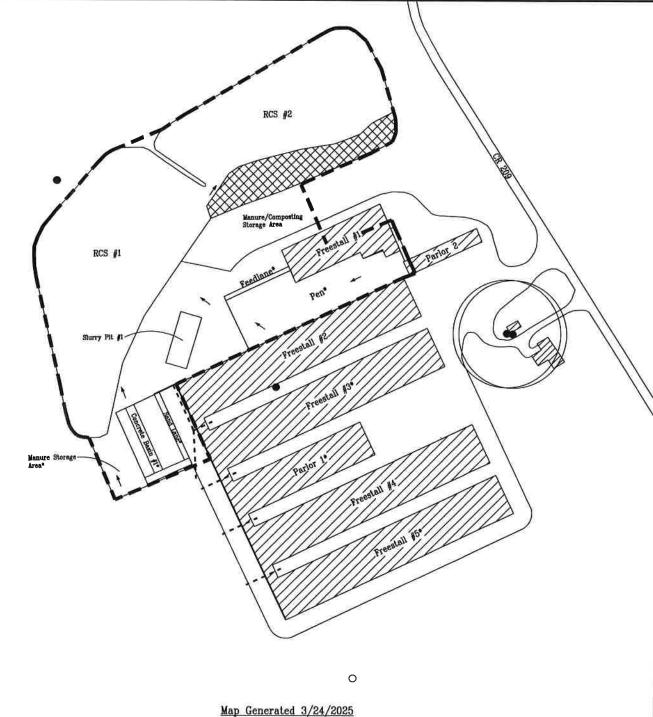
# 1.4 Runoff Control Map

Figure 1.4 is a scaled drawing of the production area showing the pens, barns, wells, RCSs, permanent manure storage and compost areas, drainage area boundaries and flow directions.









LEGEND:

Denotes Water Well

Denotes Plugged Well

Denotes Well w/150-ft Buffer

— Denotes Ditches and/or Berms

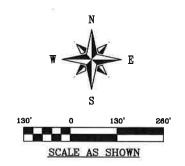
- - - Denotes Underground Pipe

Denotes Roofed Areas

Denotes Lagoon Expansion Area

Denotes Proposed Structures

Note: Drainage is depicted by arrows shown on map The drainage will be directed to the RCS via ditches, berms or underground pipe.



Refer to Figures 1.3a-c for an overall facility map.

Hillside Dairy Stephenville, Texas Erath County Runoff Control Map Figure 1.4 Page 5



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

# 2.0 CALCULATIONS & SPECIFICATIONS

# 2.1 Facility Overview

The existing facility consists of pens, freestall barns, a milking parlor, three concrete settling basins, slurry storage pit and two retention control structures to confine 3,000 head, of which 3,000 head are milking.

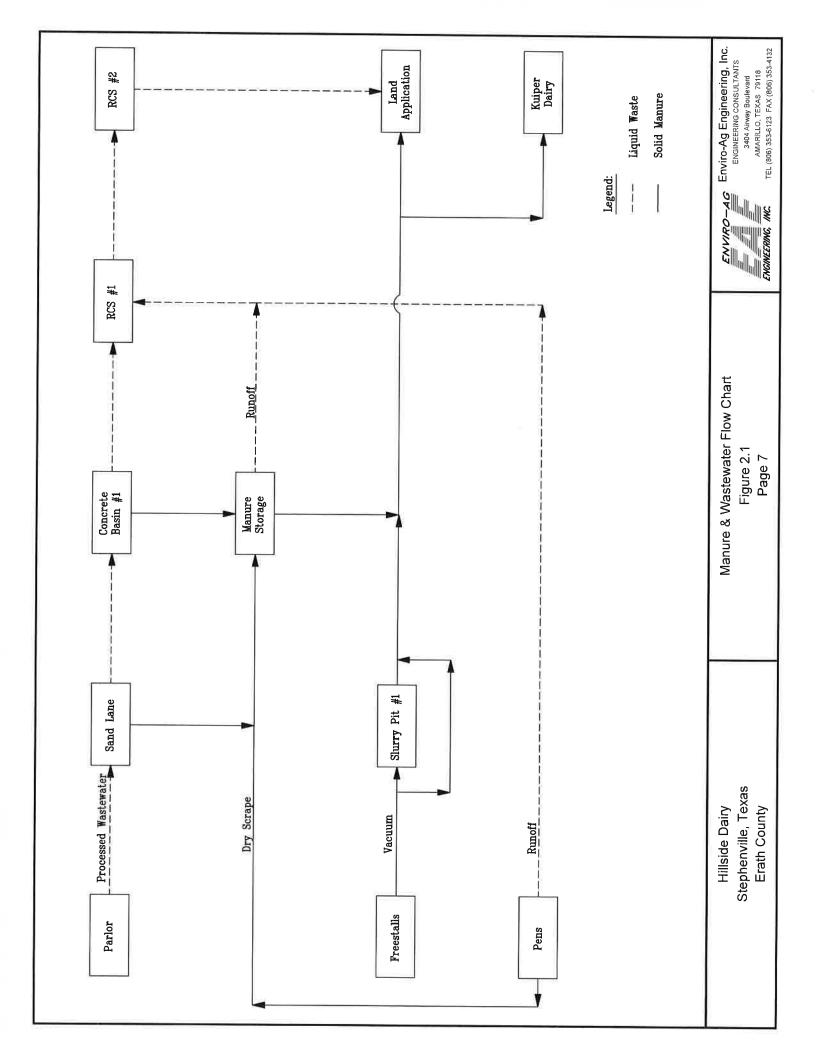
This major amendment application submitted by Hillside Dairy, LLC seek to increase the headcount from 3,000 all of which are milking to 4,500 and 4,000 milking, reconfigure the drainage area, add Parlor #1, add Freestall Barns #3 & #5, expand RCS #2 (for additional storage), add a sand lane, add Concrete Basin #1, remove Concrete Basin #2 & #3, remove the Commodity Area, remove the proposed Cross-Vent Barn, remove Wells #11-#27 and Well #3 is to be plugged. Current LMUs #1, #2, #3, #3A and #4 are reconfigured to proposed LMUs#1, #2, #3, #3A, #4, #4A and #5. Remove current LMUs #5, #5A, #6, #8, #8A, #MR1, #MR2 and #220 from the property boundary.

The existing manure and/or wastewater storage structures have been certified as meeting TCEQ requirements for soil liner. Figure 2.1, Manure & Wastewater Flow Chart, shows the waste handling procedures and storage practices at the facility.

#### 2.2 Manure Production

Table 2.1, As-Excreted Manure Characteristics Existing Dairy Facility, is included as a summary of the annual manure and nutrient production for the facility. The totals in Table 2.1 represent as-excreted manure and nutrient values for the maximum head count shown in the application.

Note: This data is intended for planning and design purposes and is not to be used for whole-farm nutrient mass balance calculations.



# ESTIMATED MANURE PRODUCTION for a DAIRY FACILITY

Table 2.1 ENVIRO-AG ENGINEERING, INC.

NAME OF CAFO: Hillside Dairy

LOCATION: Erath County DATE: March-25

	MANURE PRODUCTION CRITERIA (a)	ION CRITERIA (a)		
FACILITY TOTAL	Milkers	Milkers in	Others in	Total
	in Parlor	Freestalls	Freestalls*	
1. Maximum Number of Animals Confined (head):	4,000	4,000	200	4,500
2. Confinement period, hrs/hd/day	3	21	24	24
3. Percent of time in Confinement	13%	%88	100%	100%
4. Total Manure Production, lbs/day	75,000	525,000	41,500	641,500
5. Total Solids Production, lbs/day	10,000	70,000	5,500	85,500
6. Manure Production, tons/year	1,825	12,775	1,004	15,604
7. Volatile Solids Production, Ibs/day	8,500	59,500	4,600	72,600
8. Total Nitrogen Production, lbs/day	495	3,465	250	4,210
9. Total Phosphorus, P2O5 lbs/day (b)	195	1,363	92	1,633
10. Total Potassium, K2O lbs/day (b)	138	996	861	1,302

## NOTES:

forms. Convert to P2O5 by multiplying by 2.29 and to K2O by multiplying by 1.2.

<sup>\* -</sup> Includes dry cows, growing heifers and young stock.

and Biological Engineers Data: (ASABE D384.2 MAR05\_R2010) Manure Production and Characteristics, Table 1.b - Section 3. (a) - Manure and nutrient production values are taken from American Society of Agricultural

<sup>(</sup>b) - The ASAE Manure Production and Characteristics Tables give P and K in the elemental Production values given in terms of Ib/day-animal (wet-basis).

#### 2.3 Process-Generated Wastewater Volume

The primary source of process-generated wastewater is wash water from the milking parlor operations, which is directed into the sand land, then the concrete settling basin #1 and then to RCS #1 and RCS #2. The freestall barns are vacuumed for manure removal. The pen is dry scraped for manure removal. The volume of process wastewater (including wet manure from the milking parlor) generated daily is estimated to be 15 gallons per head (based on data for Hillside Dairy). The design storage volume in RCS #2 for process-generated wastewater is 30 days and is calculated in Table 2.2.

#### 2.4 25-Year, 10-Day Rainfall Storage Volume

In accordance with 30 TAC §321.42(c)(1), RCS #2 is designed to maintain a margin of safety to contain the runoff and direct precipitation from the 25-year, 10-day storm event for this location, which is 12.1 inches of rainfall. Drainage area runoff volumes are calculated using the SCS method with curve numbers (CN) selected based on soil type and land use. The pen area runoff and compost area were calculated using a CN of 90, the pond area was calculated using a CN of 100, and the adjacent areas were calculated a CN of 85. Roofed/concrete areas were calculated using a CN of 100. Runon from areas outside the control facility is directed away from the RCSs. Table 2.2 shows the calculated storage volume required for the rainfall runoff from a 25-year, 10-day storm.

#### 2.5 Sludge Accumulation Volume

Sludge accumulation from the milking parlor wash water was calculated using a rate of 0.0729 cubic feet of sludge per pound total solids (from USDA-NRCS Agricultural Waste Management Handbook) and a sludge storage period of 1 year. Parlor waste/wastewater is directed to a concrete settling basin, with an estimated collection/removal efficiency of 50% (Midwest Plan Services) to reduce the amount of solids entering the RCSs, thereby reducing the demand for sludge storage. The required sludge accumulation volume calculations are shown in Table 2.2.

#### 2.6 Water Balance Model

Table 2.3, Water Balance Model, estimates the inflows and withdrawals from RCS #2 including runoff, direct rainfall, process-generated wastewater, evaporation, and irrigation withdrawal based on crop demand in accordance with 30 TAC §321.38(e)(7)(C). Actual pond withdrawal amounts will vary with changing weather conditions. An additional volume is included in the RCS to provide flexibility in managing RCS levels.

#### 2.7 RCS Management Plan

A RCS Management Plan was developed by a licensed Texas professional engineer and has been implemented to incorporate the margin of safety, as specified in 30 TAC

9 Hillside Dairy

§321.42(g). The plan includes the elements specified in §321.42(g)(1)-(6), and a copy is maintained in the onsite PPP.

#### 2.8 Minimum Treatment Volume Requirement

A minimum treatment volume for odor control is required to obtain air standard authorization from the TCEQ. The minimum treatment volume is determined by estimating the volatile solids production rate less the removal efficiency of the settling basins and using a loading rate specified by ASABE Standards (ASAE EP 403.4 FEB2011) of 5.30 lbs of volatile solids per 1,000 cubic feet of storage. Table 2.2 shows the minimum treatment volume calculation.

10

# REQUIRED STORAGE VOLUMES FOR TREATMENT/ RUNOFF RETENTION CONTROL STRUCTURES Table 2.2

ENVIRO-AG ENGINEERING, INC.

Hillside Dairy Erath County March-25 NAME OF CAFO: LOCATION: DATE

# RCS #1 - TREATMENT POND REQUIREMENT

TREATMENT VOLUME			
Volatile Solids Produced:	(lb/day) 8.500	Parlor Wash Water (d).	/lea
Settling Basin Efficiency (%) (a);	≥0%	No of Head in Parlor:	)
Adjusted Volatile Solids Production:	(Ib/day) 4,250	Volume of Process Water:	
Design Loading Rate (IbVS/1000cuft-day) (b).			
		Design Storage Period:	
Treatment Volume:	(ac-ft) 1841		
		Process Water Volume:	
SLUDGE VOLUME		RAINFALL VOLUME	
Dry Manure Produced:	(lb/day) 10,000	Drainage Area Characteristics:	(acres)
Settling Basin Efficiency (%):	20%	Pen Area:	1.42
Adjusted Dry Manure Production:	(lb/day) 5,000	Adjacent Areas	2.76
Sludge Accumulation Rate (c):	(cuft/lb) 0.0729	Paved/Roof Areas:	0 65
Sludge Accumulation Period:	(years)	SB/SP Surface Areas:	1.10
		RCS #1 Surface Area:	5 85
Sludge Volume:	(ac-ft) 3.05	RCS #2 Surface Area:	4.75
		Total Drainage Area:	16 53
TOTAL TREATMENT VOLUME		25-Year, 10-Day Rainfall:	
Treatment Volume:	(ac-ft) 1841		
I-Year Sludge Volume:	(ac-ft) 3 05		(inches
		Runoff Volume Determination (e):	
Total Required RCS #1 Volume:	(ac-ft) 21.46	Pen Area:	6.01

- (a) Midwest Plan Service, 1983, Revised 1987 (Waxte Management, pg. 702 11)
  (b) Loading Rate taken from Figure 2, ASABE Standards (ASABE EP403 4 FEB2011)
- (c) Sludge Accumulation Rate taken from Table 1, ASABE Standards (ASABE EP403 4 FEB 2011)

  (d) Value includes wet manure production from the milking parlor

  (e) Using SCS method:

S = (10000/CN) - 10

 $Q = ((1 - 0.2S)^{-2})/(1 - 0.8S)$ 

S = Potential maximum retention after runoff begins in)Q = Runoff (in) I = 25-year, 10-day rainfall (in)

CN = Curve Number from SCS 210-VI-TR-55,

2nd Edition, June 1986

(f) USDA Agricultural Field Waste Handbook, Kansas, Part 651 1082, Suggested procedures for sediment volume estimation (1 year storage, pen/adjacent area and 1.5%)

NOTE: Calculations were performed in Microsoft Excel using floating point arithmetic in order to maintain the accuracy of the data. Any inconsistencies in rounding of the displayed values are not to be construed as errors in the calculation. For more information, please refer to http://support.microsoft.com/kb/42980

Parlor Wash Water (d).   Parlor Wash Water (d).   No of Head in Parlor.   (gal/head/day)   15 No of Head in Parlor.   (gal/head/day)   15 No of Head in Parlor.   (gal/day)   60,000	RCS #2 - RUNOFF POND REQUIREMENT PROCESS GENERATED WASTEWATER		
(gal/day) (days) (days) (ac-ft) 1.42 2.76 0.65 1.10 5.85 4.75 16.53 (inches) 10.2 11.2 12.1 12.1 12.1 12.1 12.1 12.1	Parlor Wash Water (d). No of Head in Parlor:	(gal/head/day)	15
(days) (ac-ft) (ac-ft) (ac-ft) 1.42 2.76 0.65 1.10 5.85 4.75 16.53 (inches) 10.9 10.2 12.1 12.1 12.1 12.1 12.1 12.1 12.1	Volume of Process Water:	(gal/day)	000'09
(acres) 1.42 2.76 0.65 1.10 5.85 4.75 16.53 (inches) 10.2 11.2 12.1 12.1 12.1 12.1 12.1 12.1	Design Storage Period:	(skep)	30
(acres) 1.42 2.76 0.65 1.10 5.85 4.75 16.53 (inches) (inches) 10.2 12.1 12.1 12.1 12.1 12.1 12.1 12.1	Process Water Volume:	(ac-ft)	5 52
(acres) 1.42 2.76 0.65 1.10 5.85 4.75 16.53 (inches) (inches) 10.2 11.2 12.1 12.1 12.1 12.1 12.1 12.1	RAINFALL VOLUME		
1.42 2.76 0.65 1.10 5.85 4.75 16.53 (inches) (inches) 10.2 11.2 12.1 12.1 12.1 12.1 12.1 12.1	Drainage Area Characteristics:	(acres)	S
2.76 0.65 1.10 5.85 4.75 16.53 (inches) (inches) 10.2 12.1 12.1 12.1 12.1 12.1 12.1 12.1	Pen Area:	1.42	8
0 65 1.10 5.85 4.75 16.53 (inches) 10.2 10.2 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 13.1 14.5 16.5 16.5 16.5 17.1 18.5 19.5 1	Adjacent Areas	2.76	85
1.10 5.85 4.75 16.53 (inches) (inches) 10.2 10.2 12.1 12.1 12.1 12.1 12.1 12.1	Paved/Roof Areas:	0 65	001
5.85 4.75 16.53 (inches) (inches) 10.2 10.2 12.1 12.1 12.1 12.1 12.1 12.1	SB/SP Surface Areas:	1.10	100
4.75 16.53 (inches) (inches) (inches) 10.2 10.2 12.1 12.1 12.1 12.1 12.1 (ac-ft) (ac-ft) (ac-ft)	RCS #1 Surface Area.	5.85	100
(inches) (inches) (inches) (inches) (inches) (i0.2 (i0.2 (i2.1 (i2	RCS #2 Surface Area.	4,75	100
(inches) (inches) (inches) (10.9 (10.2 (12.1 (12.1 (12.1 (12.1 (12.1 (12.1 (12.1 (12.1 (12.1 (12.1 (12.1 (ac.ft) (ac.ft) (ac.ft) (ac.ft) (ac.ft)	Total Dramage Area:	16 53	
(inches)  10 9  10 0  10 1  12 1  12 1  12 1  12 1  (ac-ft)  (ac-ft)  (ac-ft)  (ac-ft)  (ac-ft)	25-Year, 10-Day Rainfall:	(inches)	121
10.9 10.2 12.1 12.1 12.1 12.1 (ac-ft) (ac-ft) (ac-ft)	Runoff Volume Determination (e):	(inches)	(ac-ft)
10.2 12.1 12.1 12.1 12.1 (ac-ft) (ac-ft) (ac-ft) (ac-ft)	Pen Area:	10.9	1 29
(ac-ft) (ac-ft	Adjacent Areas:	10.2	2.35
12     12     12     2     (ac-fi)   (ac-fi)   (ac-fi)   (ac-fi)	Paved/Roof Arcas:	12.1	990
2     (ac-fi)   (ac-fi)   (ac-fi)   (ac-fi)   (ac-fi)   (ac-fi)	SB/SP Surface Areas;	12.1	1.11
12   (ac-ft)	RCS #1 Surface Area:	12.1	5 90
(ac-ft) (ac-ft) (ac-ft) (ac-ft) (ac-ft) (ac-ft)	RCS #2 Surface Area:	12.1	4 79
(ac-ft) (ac-ft) (ac-ft) (ac-ft) (ac-ft)	Rainfall Volume:	(ac-fl)	60 91
(ac-ft) (ac-ft) (ac-ft) (ac-ft) (ac-ft) (ac-ft)	TOTAL VOLUME REQUIRED		
(ac-ft) (ac-ft) (ac-ft)	Runoff Sludge Volume (f):	(ac-ft)	0.08
(ac-ft)	Process Water Volume:	(ac-ft)	5 52
(ac-ft)	Rainfall Volume:	(ac-ft)	60 91
(ac-ft)	Additional from Water Balance:	(ac-ft)	8 59
(ac-It)	10,		1 1
	Total Required RCS #2 Volume:	(ac-ft)	30.28
	LOVO NO.	5	

Firm No F-2507

A SSIONAL T

# IRRIGATION AND EVAPORATION for RCS #2 WATER BALANCE MODEL

# Table 2.3 ENVIRO-AG ENGINEERING, INC.

NAME: LOCATION:	Hillside Dairy Erath County			HYDROLOGIC CHARA Pen Area (acres):	CHARACTERISTICS	CS	147		- '`	IRRIGATION CE 25-Year 10-Day 6	IRRIGATION CELL VOLUME SUMMARY DATA 75-Year 10-Day Rainfall Volume (ac.ft):	WMARY DATA		60.91
DATE:	March-25			Adjacent Areas (acres):	cres):		2.76			Process Generated	Process Generated Wastewater Volume (ac-ft):	ле (ac-ft):		5 52
				Paved/Roof Area (acres)	(acres):		0 65			Sludge Accumular	Sludge Accumulation Volume (ac-ft):			0 08
				Total Trt/RCS Sur	Total Trt/RCS Surface Area (acres):		10.60		,	Additional Volume (ac-ft)	e (ac-ft):			8.59
				Total Imgated Area (acres)(12):	sa (acres)(12):		205	205		Total Required Capacity (ac-ft):	pacity (ac-ft):			30.28
				Cropping scheme:			Coastal	Winter Wheat						
				Effective Evaporation Su	tion Surface Area (acres):	(acres):	4 04							
		RCS IN	RCS INFLOW CALCULATIONS	ATIONS			HYDRAULIC C	HYDRAULIC CROP DEMAND CALCULATIONS	ALCULATIONS			RCS STORAGE SUMMARY	E SUMMARY	
	(E)	(2)	(2)	(3)	(4)	(5)	(9)	(9)	(5)	(7)	(8)	(6)	(10)	(11)
MONTH	(inches)	(inches)	(inches)	(ac-ft)	(ac-ft)	(inches)	(inches)	(inches)	(ac-ft)	(ac-ft)	(inches)	(ac-ft)	(ac-ft)	(ac-ft)
													start value>	0.08
JAN	1.55	0.23	900	5 71	7 20	1 26	2.10	2 74	14 31	25.24	7.37	08 0	641	80.0
FEB	1 89	0.39	0 14	5.16	107	1,42	2.46	I (2)	17.71	28.81	2.70	0.91	019	0.08
MAR	2 16	0 54	0 23	5.71	7.85	1,53	4 06	4 97	43 17	58.71	4 27	1 44	6.41	80 0
APR	2.89	1 00	0.53	5 52	8 48	1.77	4.98	5.74	54 84	67.82	5 19	1.75	6.73	0.08
MAY	4.35	2,10	1 37	5.71	10.35	2.08	5.73	5 33	62.31	55 47	5 24	1 76	8 59	80.0
JCN.	3.23	1 24	12 0	5 52	8 86	1.86	6.82	3 22	84.77	23.27	7 01	2.36	6.50	80.0
JUL	2.12	0 52	0.21	5.71	7.81	1,52	2.66	00'0	104 93	00 0	8 23	277	5.04	80.0
AUG	2.24	65 0	0.26	5.71	7 94	95 1	7.56	00 0	102.45	00 0	7.73	2 60	5 34	80 0
SEP	3.05	111	190	5, 52	8.66	18,1	5 78	000	11.19	00 0	2.97	2.01	59'9	80 0
OCT	3 23	1.24	0.71	5,71	9 0 2	1.86	4 29	2 15	41.55	4 99	4 89	1 65	7 40	0 08
NOV	1.88	0.39	0.14	5 52	7.36	1 42	2.81	1.70	23,76	4 80	3 33	1.12	6 24	80.0
DEC	1,62	0.26	0 07	5.71	7.28	1 30	2 24	2 33	60 91	17 63	2.45	0.82	6 45	80'0
TOTALS	30.21	09'6	5.05	67.21	97.83	19 40	56,49	31.29	633 65	286 74	59.38	19.98	77.85	

- (1) AVERAGE PRECIPITATION Average precipitation taken from the Texas Water Development Board, Erath County, Quad #509, Retrieved March 24, 2025.
- (2) RUNOFF PENS AND ADJACENT AREA Runoff from pens, adjacent areas calculated using SCS Curve Number Method adjusted from 1 to 30-day Curve Number (Pen CN-77, Adj CN-67) (Ref. NRCS Animal Waste Management Software Help File-Program Documentation for Runoff)
- (3) INFLOW Inflow is calculated from process generated wastewater, Table 2.2
- (4) TOTAL INFLOW Total Inflow is calculated as that volume of rainfall that falls on the RCS and process water that enters the RCS.
- (5) RAINFALL ON IRRIGATED AREA Effective monthly rainfall on the irrigated area is calculated using SCS Curve Number Method adjusted from 1 to 30-day Curve Number (Irr CN-79) (Ref. NRCS Antinal Waste Management Software Help File-
  - (6) CONSUMPTIVE USE values from Bornelli, et al. 1998. Mean Crop Consumptive Use and Free-Water Evaporation for Texas. Dept. of Civil Engineering, Texas Tech University, Lubbook, Texas (Tables 16 & 25) Program Documentalion for Runoff)
- (7) NET CROP DEMAND Net Crop Demand = ((Consumptive Use(6) Effective Rainfall(5))/12) x (rrigated Area
- (8) MONTHLY LAKE SURFACE EVAPORATION Average monthly lake surface evaporation taken from the Texas Water Development Board. Erath County, Quad #509, Retrieved March 24, 2025.
- (9) NET POND EVAPORATION Net Evaporation from the water surface is taken as (Monthly Lake Surface Evap/12) x (RCS Surface Area)
- (10) ACTUAL WITHDRAWAL Actual Withdrawal from the irrigation cell not to exceed Net Crop Demand (No consideration given for nutrient demand of crop)
- (11) STORAGE AT END OF MONTH Storage volume in the irrigation cell at the end of the month. The storage calculated in this column should not encroach in the volume reserved for the 25-year, 10-day rainfall event

NOTE: Calculations were performed in Microsoft Excel using floating point arithmetic in order to maintain the accuracy of the data. Any inconsistencies in rounding of the displayed values are not to be construed as errors in the calculation For more information, please refer to http://support.microsoft.com/kb/42980



#### 3.0 FACILITY INFORMATION

#### 3.1 Required Certifications

RCS #1, RCS #2 and the slurry storage pit have been certified by a licensed Texas professional engineer as meeting the liner requirements of the TCEQ. Existing liner and capacity certifications are attached.

#### 3.2 100-Year Flood Plain Evaluation

The FEMA 100-year flood plain did not show a flood plain located on the facility (Figure 3.1). The production area and LMUs are not located within a 100-year flood plain.



Denotes Production Area

Map Generated 3/24/2025



No Scale

Source: FEMA, Flood Plain Maps

Hillside Dairy Stephenville, Texas **Erath County** 

FEMA Flood Map Figure 3.1 Page 14



Enviro-Ag Engineering, Inc. ENGINEERING CONSULTANTS 3404 Airway Boulevard AMARILLO, TEXAS 79118 TEL (806) 353-6123 FAX (806) 353-4132



#### Wyly #1 Dairy Erath County, Texas RCS #1 Capacity Certification

The survey capacity performed on September 16, 2010 by Enviro-Ag Engineering, Inc. for retention control structure (RCS) #1 (treatment lagoon) with two vertical feet of dry freeboard is calculated as:

RCS #1 Capacity:

27.95 ac-ft

RCS #1 Surface Area: 4.26 surface acres @ High Water Level

Prepared by:

Norman Mullin, P.E. # 66107

Enviro-Ag Engineering, Inc.

TBPE Firm # 2507

NORMAN H. MULLIN

12/21/2010



#### Wyly #1 Dairy **Erath County, Texas RCS #2 Capacity Certification**

The survey capacity performed on September 16, 2010 by Enviro-Ag Engineering, Inc. for retention control structure (RCS) #2 at the spillway is calculated as:

RCS #2 Capacity:

44.05 ac-ft

RCS #2 Surface Area: 8.92 surface acres @ Spillway

Prepared by:

12/21/2010

Norman Mullin, P.E. # 66107 Enviro-Ag Engineering, Inc.

NORMAN H. MULLIN

TBPE Firm # 2507



## RCS #1 LINER CERTIFICATION Wyly #1 Dairy Erath County, Texas

In August 2007, two liner core samples were collected from runoff control structure (RCS) #1 at Wyly #1 Dairy by Enviro-Ag Engineering, Inc.. The samples were collected to verify a minimum liner thickness of 12 inches and then submitted for permeability determination (ASTM D5084). Results of the permeability tests are as follows:

• RCS #1-1 3.2 x 10E-08 cm/sec

RCS #1-2 8.4 x 10E-09 cm/sec

Based on the above permeability test results, the liner in RCS #1 meets the requirements of the TCEQ allowable seepage rates for runoff control structures (18 inches of liner material having 1.0 x 10E-07 cm/sec hydraulic conductivity or its equivalent).

Respectfully submitted,

NORMAN H. MUL

Norman H. Mullin, P.E. Registration #66107

### CALCULATION OF SPECIFIC DISCHARGE TCEQ REQUIREMENTS vs. INSTALLED SOIL LINER

SITE:

Wyly #1 Dairy

ENGINEER: NHM

LOCATION: STRUCTURE:

Erath County, TX RCS #1 DATE: Oct 2007

This worksheet calculates the specific discharge through a soil liner based on the measured thickness of the installed clay liner and the results of permeability testing. The calculated specific discharge of the installed liner is then compared to a calculated specific discharge of a theoretical pond of comparable depth lined with 18 inches of 1 x 10-7 homogeneous clay material.

	Hydraulic Cone	ductivity Results	of Core Samples	TCEQ Benchmark
	RCS #1-1	RCS #1-2		
1. Water Depth, feet	13	13	0	13
2. Liner Thickness, inches	12.0	12.0	0.0	18.0
<ol><li>Hydraulic Conductivity, cm/sec</li></ol>	3.20E-08	8.40E-09	0.00E+00	1.00E-07
<ol> <li>Calculated specific discharge, v<sup>i</sup></li> </ol>				<del></del>
a.) feet per day	0.001270	0.000333	#DIV/01	0.002740
b.) feet per year	0.464	0.122	#DIV/01	1.000

#### NOTES:

- (1) Water depth of the pond in feet.
- (2) Soil liner thickness in inches.
- (3) Hydaulic conductivity of the core sample(s) as determined by flexible wall permeameter in cm/sec (Ref: ASTM D 5084).
- (4) The specific discharge is estimated for the collected samples and for the TCEQ benchmark.

The following equation is used:

v' = k (H + d) / d

where:

v' = Specific Discharge of area representative of core sample, feet/day

d = Measure Liner Thickness at core sample location, feet

k = Hydaulic Conductivity of liner based on core sample testing, feet/day

H = Maximum Water Depth, feet

Enviro-Ag Engineering, Inc.

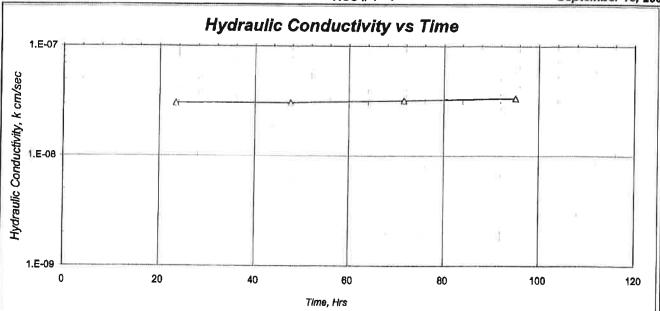
HYDRAULIC CONDUCTIVITY

3404 Airway Blvd., Amarillo, TX 79118 (806) 353-6123 LABORATORY SERVICES



REPORT ASTM D-5084, Method C





#### SPECIMEN DATA

	SAMPLE ID:	1		
	DESCRIPTION:	RCS # 1 - 1		
Ì		INITIAL	<u>FINAL</u>	
	HEIGHT, in.	2.7	2.7	
1	DIAMETER, In.	2.8	2.8	
-	WATER CONTENT, %	14.5	16.0	
1	DRY DENSITY, pcf	119	118	
1	SATURATION, %	93	100	
1	(Specific Gravity assumed as 2.71)			
	SAMPLE COLOR	Light Brown		
	SAMPLE CONSISTENCY	Clay W/ Calich	e Nodules	

Tap water used as permeant.

#### TEST DATA

_	IESID	AIA
9	ASTM D-5084, I	Method C
EFFECT	TIVE STRESS:	5 psi
GRADIE	NT RANGE:	3 - 3
IN/OUT	TRATIO:	1.00
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	23.5	3.1E-08
2	47.6	3.1E-08
3	71.5	3.2E-08
4	95.1	3.4E-08
AVER	RAGE LAST 4 :	3.2E-08

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

By eccepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to Indemnity and hold harmless Enviro-Ag from and against all liability in excess of the aforementioned limit.

LabiParms \( \frac{2007 \ 07-07-17 \ 10-009}{Print Data:} \frac{Print Data}{Print Data}. Z : Solis Lab/Perms \2007 \ 07-07-17 \ 10-009

Enviro-Ag Engineering, Inc. 3404 Alrwey Blvd., Amerillo, TX 79118 (806) 353-6123

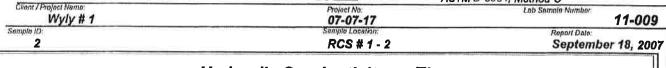
HYDRAULIC CONDUCTIVITY

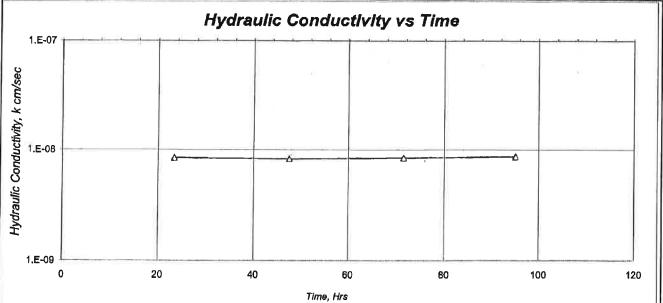
LABORATORY SERVICES



REPORT

ASTM D-5084, Method C





#### SPECIMEN DATA

ij	SAMPLE ID:	2	
	DESCRIPTION:	RCS # 1 - 2	
		<u>INITIAL</u>	<u> FINAL</u>
ĺ	HEIGHT, In.	2.3	2.3
1	DIAMETER, In.	2.8	2.8
	WATER CONTENT, %	12.9	19.0
	DRY DENSITY, pcf	111	111
1	SATURATION, %	67	100
	(Specific Gravity assumed as 2.66	)	
	SAMPLE COLOR	Dark Brown	
	SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

#### TEST DATA

	IESIU	AIA	
	ASTM D-5084, N	Method C	
EFFECT	IVE STRESS:	5 psi	
GRADIE	NT RANGE:	3 - 3	
IN/OUT	RATIO:	1.00	
		HYDRAULIC	
TRIAL TIME nos. hrs.		CONDUCTIVITY	
		cm / sec	
1 23.4		8.4E-09	
2 47.6		8.2E-09	
3 71.5		8.4E-09	
4	95.1	8.6E-09	
AVER	AGE LAST 4 :	8.4E-09	

These results apply only to the above listed samples. The date and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc. By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of

this data to the cost for the respective test(s) represented here, and Client agrees to Indemnify and hold hermiess Enviro-Ag from and against all liability in excess of the aforementioned limit. Z : Solls LabVarms \2007 \ 07-07-17 \ 11-009 Print Date: Reviewed By:



### Hillside Dairy Erath County, Texas RCS #1 Liner Disturbance Certification

One 3-inch Shelby tube core sample was collected from RCS #1 to document that the liner meets the requirements of the TCEQ guidelines for soil liner, (CAFO General Permit No. TXG920000, Part III.A.9.F.) after a liner disturbance (cleanout). The liner thickness was documented to be at least 18 inches.

The hydraulic conductivity of the clay liner is documented as follows:

• #1 (Lab #3759)

6.1 x 10<sup>-8</sup> cm/sec

Based on the above documentation, the liner in RCS #1 is certified to be in accordance with TCEQ requirements for soil liners. The test locations were backfilled with bentonite chips. The test results meet the requirements of the TCEQ for hydraulic conductivity considered protective of ground and surface water sources. This certification is to be maintained in the PPP for documentation.

NORMAN H. MULLIN
66107
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ONAL EN

11/20/15

Norman Mullin, P.E. # 66107 Enviro-Ag Engineering, Inc. TBPE Firm # 2507

STRUCTURE PERMILAB	ACS#1-1 3759			3404 Airway Bivd., Amarillo, TX 79118	161: (606) 353-4137
TRIAXIAL PERMEABILITY CHAIN OF CUSTODY	. + 2		MS#1	Facility Name: HTUSTOE OSTAN  Project Engineer: NORMAN MUSTAN.  Sampled By: COREY MUSTAN  Date Sampled: 10/22/15  Date to Lab: 10/35/15  Received: Multiple.	16.7

g gr

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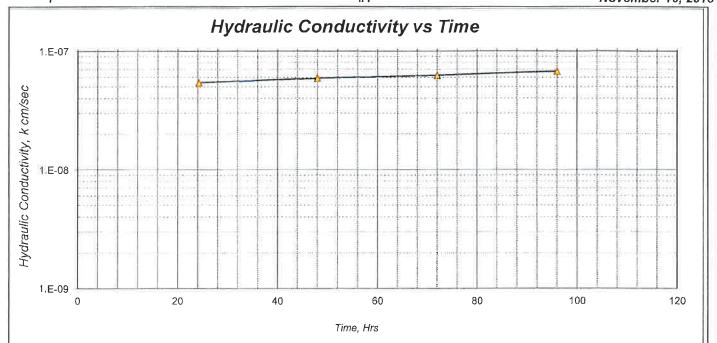
#### LABORATORY SERVICES



#### REPORT

ASTM D-5084, Method C

Client / Project Name Hillside Dairy 15-10-28 3759 Sample ID: Report Date: November 16, 2015 1



#### SPECIMEN DATA

	SAMPLE ID:	1	
	DESCRIPTION:	#1	
		INITIAL	FINAL
	HEIGHT, in.	2.8	2.8
	DIAMETER, in	2.9	2.9
	WATER CONTENT, %	14.7	18.9
	DRY DENSITY, pcf	114	111
	SATURATION, %	83	98
	(Specific Gravity assumed as 2.7)		
1	SAMPLE COLOR	Light Brown	
ı			
	SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

#### **TEST DATA**

ASTM D-5084,	Method C
TIVE STRESS:	5 psi
NT RANGE:	3 - 4
TRATIO:	1.00
	HYDRAULIC
TIME	CONDUCTIVITY
hrs.	cm / sec
24.3	5.4E-08
48.0	5.9E-08
72.1	6.3E-08
96.0	6.8E-08
	TIVE STRESS: ENT RANGE: TRATIO:  TIME hrs. 24.3 48.0 72.1

6.1E-08 AVERAGE LAST 4

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc. By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to indemnify and hold harmless Enviro-Ag from and against all flability in excess of the aforementioned limit

Z : Soils Lab\Perms \1915 \ 15-10-28 \ 3759

Print Date:

11/20/15

# CALCULATION OF SPECIFIC DISCHARGE

SITE: Hillside Dairy
LOCATION: Erath County, TX

ENGINEER: NHIM DATE: Nov. '15

STRUCTURE: RCS #1

This worksheet calculates the specific discharge through a soil liner based on the measured thickness of the installed clay liner and the results of the permeability testing. The maximum allowable specific discharge of the installed liner is  $1.1 \times E$ -06 cm/sec or 0.0374 in/day.

		Hydr	Hydraulic Conductivity Results of Core Samples	mples	
Laboratory Sample I.D.	3759				
1. Water Depth, feet	15				
2. Liner Thickness, inches	18.0				
3. Hydraulic Conductivity, cm/sec	6.10E-08				
4. Calculated specific discharge, v'					
Seepage Rate, inches/day	0.0228				
Maximum Seepage Rate, inches/day	0.0374				

# NOTES:

- (1) Water depth of the pond in feet.
- (2) Soil liner thickness in inches.
- (3) Hydaulic conductivity of the core sample(s) as determined by flexible wall permeameter in cm/sec (Ref: ASTM D 5084).

The following equation is used:

 $v' = k \left( H + d \right) / d$ 

where: v' = Specific Discharge of area representative of core sample, inches/day

d = Measure Liner Thickness at core sample location, feet

k = Hydaulic Conductivity of liner based on core sample testing, inches/day

H = Maximum Water Depth, feet

(4) Maximum Allowable Seepage Rate of 1.1 E-06 cm/sec (0.0374 in/day).



Norman Mullin, P.E. # 66107 Enviro-Ag Engineering, Inc. TBPE Firm # 2507



### Wyly #1 Dairy Erath County, Texas RCS #2 Liner Certification

Four 3-inch Shelby tube core samples were collected from RCS #2 to document the clay liner meets the requirements of the TCEQ for soil liner. The sample locations were backfilled with bentonite clay chips for sealing. The liner thickness was documented to be a minimum of 18 inches.

The hydraulic conductivity of the clay liner is documented as follows:

•	RCS #2-1 (Lab #1857)	$3.7 \times 10^{-8} \text{ cm/sec}$
•	RCS #2-2 (Lab #1858)	$2.2 \times 10^{-8} \text{ cm/sec}$
•	RCS #2-3 (Lab #1940)	4.5 x 10 <sup>-8</sup> cm/sec
	RCS #2-4 (Lab #1941)	$8.8 \times 10^{-8} \text{ cm/sec}$

The clay liner present in RCS #2 is determined to be in accordance with TCEQ specific discharge requirements of 1.1 x 10<sup>-6</sup> cm/sec. The observed hydraulic conductivity from RCS #2 is considered protective of ground and surface water resources.

Supporting moisture and density laboratory results indicate the embankment and liners were installed at 95% maximum dry density and within the moisture range of minus 1% to plus 3% of optimum moisture content (see attached moisture/density test results). The liner present in RCS #2 is determined to be constructed in accordance with TCEQ requirements for soil liners

I certify that RCS #2 at Wyly #1 Dairy meets the construction requirements of NRCS Practice Codes 313 (Waste Storage Ponds), 378 (Pond Embankment) and 521D (Pond Sealing or Lining, Compacted Clay Treatment). Erosion protection and emergency spillway are in place and the staff gauge is installed and calibrated.

Prepared by:

MORMAN H. MULLIN

Norman Mullin P.E. # 66107

Enviro-Ag Engineering, Inc.

TBPE Firm # 2507

12/21/2010

# CALCULATION OF SPECIFIC DISCHARGE

SITE: Wyly #1 Dairy
LOCATION: Erath County, TX

Erath County, TX RCS #2

STRUCTURE:

ENGINEER: NHM
DATE: Dec '10

cheef calculates the snewific discharge through a soil liner based on the measure

This worksheet calculates the specific discharge through a soil liner based on the measured thickness of the installed clay liner and the results of the permeability testing. The maximum allowable specific discharge of the installed liner is 1.1 x E-06 cm/sec or 0.0374 in/day.

				Hydraulic Conduct	Hydraulic Conductivity Results of Core Samples
Laboratory Sample J.D.	1857	1858	1940	1941	
1. Water Depth, feet	11	11	11	11	
2. Liner Thickness, inches	18.0	18.0	18.0	18.0	
3. Hydraulic Conductivity, cm/sec	3.70E-08	2.20E-08	3.70E-08   2.20E-08   4.50E-08   8.80E-08	8.80E-08	
4. Calculated specific discharge, v'					
Seepage Rate, inches/day	0.0105	0.0062	0.0128	0.0249	
Maximum Seepage Rate, inches/day	0.0374	0.0374	0.0374	0.0374	

## NOTES:

- (1) Water depth of the pond in feet.
- (2) Soil liner thickness in inches.
- (3) Hydaulic conductivity of the core sample(s) as determined by flexible wall permeameter in cm/sec (Ref. ASTM D 5084).

The following equation is used:

v' = k (H + d) / d

where: v' = Specific Discharge of area representative of core sample, inches/day

d = Measure Liner Thickness at core sample location, feet

k = Hydaulic Conductivity of liner based on core sample testing, inches/day

H = Maximum Water Depth, feet

(4) Maximum Allowable Seepage Rate of 1.1 E-06 cm/sec (0.0374 in/day).



TBPE Firm # 2507

			PERM	AB A
TRIAXIAL PERMEABILITY	Y CHAIN of CUSTODY	STRUCTURE		507
		1	35	1857
		2-2	1858	200
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11 **				
).E		2		
12				
<b>⊇</b> 1				
>: 	50			
			-	
44			*	
Facility Name: WY LY		540 <u>1</u> 2	a	
Project Engineer.			Enviro-Ag Engineering, Inc. ENGINEERING CONSULTANTS	<u>હ</u>
Sampled by:		ENGINEERING INC.	3404 Airway Boulevard AMARULO, TEXAS, 79118 TEL (806) 355-6123, FAX (806) 355-4137	32
Date Sampled: $I\theta/20/I0$				
Date to Lab: (C/2///0 . Rec	Received: Mil Tohir.			

Enviro-Ag Engineering, Inc.

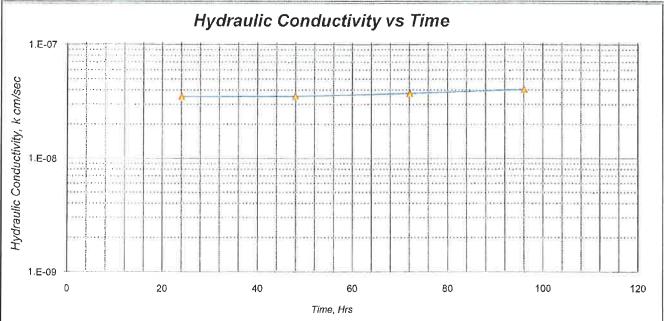
HYDRAULIC CONDUCTIVITY

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#### REPORT

ASTM D-5084, Method C





#### SPECIMEN DATA

	SAMPLE ID:	1	
	DESCRIPTION:	2 - 1	
Ì		INITIAL	FINAL
Ì			
l	HEIGHT, in.	4.3	4.3
ľ	DIAMETER, in.	2.9	2.9
	WATER CONTENT, %	14.0	19.2
	DRY DENSITY, pcf	111	110
ı	SATURATION, %	73	97
1	(Specific Gravity assumed as 2.7)		
	SAMPLE COLOR	Yellow / Brown	
	SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

#### **TEST DATA**

0	ASTM D-5084,	Method C
EFFEC:	TIVE STRESS:	5 psi
GRADIE	ENT RANGE:	2 - 2
IN / OUT RATIO:		0.97
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	hrs.	cm/sec
1	24.1	3.5E-08
2	48.0	3.5E-08
3	72.2	3.7E-08
4	96.1	4.1E-08

AVERAGE LAST 4:

3.7E-08

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Z : Soils Lab\Perms \1910 \ 10-10-20 \ 1857

Print Date: 12/07/10

LSN:

DCN: EAE-QC-GRAPH (rev. 11/10/04)

Micah Mullin

1857

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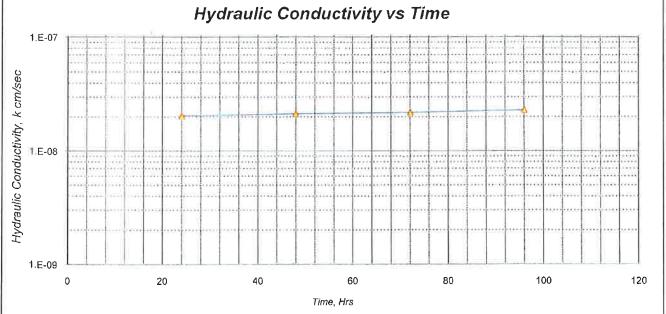
LABORATORY SERVICES



#### **REPORT**

ASTM D-5084, Method C





#### SPECIMEN DATA

	SAMPLE ID:	2		
	DESCRIPTION:	2 - 2		
		<u>INITIAL</u>	<b>EINAL</b>	
ï	HEIGHT, in.	4.8	4.8	
Ì	DIAMETER, in.	2.8	2.8	
	WATER CONTENT, %	20.7	30.3	
	DRY DENSITY, pcf	93	91	
ľ	SATURATION, %	69	97	
	(Specific Gravity assumed as 2.7)			
	SAMPLE COLOR	Yellow / Brown		
	SAMPLE CONSISTENCY	Clay		

COMMENTS:

Tap water used as permeant.

#### **TEST DATA**

	ASTM D-5084,	Method C		
EFFEC*	TIVE STRESS:	5 psi		
GRADIENT RANGE:		2 - 2		
IN/OU	T RATIO:	1.00		
		HYDRAULIC		
TRIAL	TIME	CONDUCTIVITY		
nos.	hrs.	cm/sec		
1	24.1	2.0E-08		
2	48.0	2.1E-08		
3	72.2	2.2E-08		
4	96.1	2.3E-08		

2.2E-08 AVERAGE LAST 4:

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Z : Soils Lab\Perms \1910 \ 10-10-20 \ 1858

Print Date:

Reviewed By: Micah Mullin

Safety Name:	TRIAXIAL PERMEABILITY CHAIN of CUSTODY	STRUCTURE	PERM REPORT I.D.	LOG
E. Whit # 1  Koland Taker  11/17/10 Received: Melling			-12	1461
Mutt I Boton X 2  Morman Mullin  and The PT  17/10 Received: Mullin				
e: Whit #   Rolad Staker    Colad Staker   Willing				
e: Whit # 1  Rodad Staker  (d: 11/7/12   Received: Multin				
e: Why # I Rolad The PT (1) 12/10 d: 11/17/10 Received: Medit Bollin	/			
e: Why # I Rosa of State The Millia G: MIZIO d: MITHE Received: Multiture	× /			
Holad State Mulling  Holad Staker  Hill 210  Hill Mulling  Hill Received: Mulling				
e: Whit # 1 Rosad Taker  HILZIO  Received: Multiple  My Taker				
Holand Staker  Koland Staker  HILZIO  Received: Multiply				
e: Whit #   Norman Milling Rosa & Taker 11/17/10   Received: Mult Baller				
Kodad Staker (1) 2/10 11/17/10 Received: Mult Baller	5)2(2)			
11/17/10 Received: Medy traken	ON ON	<b>1</b>		
d: 11/12/10 11/17/12 Received: Mulitahu	Koland Tak	302 Mor Blo	gan Mill Road Jg C	
11/17/10 Received: Meditorum	11/12/10	Stephenv (254)	/ille, TX 76401 965-3500	
	11/17/10 Received: 70	Fax: (25	54) 965-8000	

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Chent / Project Name

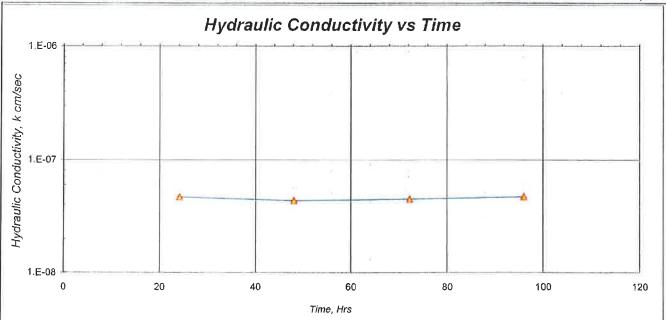
LABORATORY SERVICES



#### REPORT ASTM D-5084, Method C

Lab Sample Number;

1940 Wyly #1 10-11-12 Report Dale: Bottom 1 December 3, 2010



#### SPECIMEN DATA

	SAMPLE ID:	1	
ı	DESCRIPTION:	Bottom 1	
ı		INITIAL	<u>FINAL</u>
	HEIGHT, in.	3.7	3.7
	DIAMETER, in.	2.9	2.9
	WATER CONTENT, %	13.3	17.1
	DRY DENSITY, pcf	117	115
	SATURATION, %	82	100
i	(Specific Gravity assumed as 2.7)	1	
l	SAMPLE COLOR	Yellow	
1			
	SAMPLE CONSISTENCY	Clay	

#### COMMENTS:

Tap water used as permeant.

#### **TEST DATA**

		71171
	ASTM D-5084,	Method C
EFFECTIVE STRESS:		5 psi
GRADIENT RANGE:		2 - 3
IN / OUT RATIO:		0.95
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	hrs.	cm/sec
1	24.1	4.6E-08
2	48.2	4.3E-08
3	72.2	4.5E-08
4	96.1	4.7E-08

AVERAGE LAST 4

4.5E-08

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Z : Soils Lab/Perms \1910 \ 10-11-12 \ 1940

Print Date:

Reviewed By: Micah Mullin

1940

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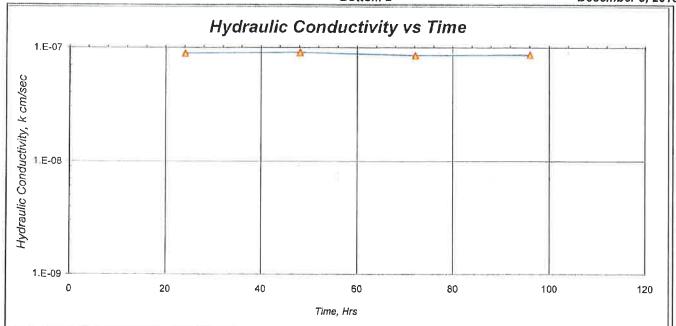
LABORATORY SERVICES



REPORT

ASTM D-5084, Method C

Chent / Project Name Lab Sample Number Wyly #1 1941 10-11-12 Sample ID: Report Date: Bottom 2 December 3, 2010



#### SPECIMEN DATA

SAMPLE ID:	2	
DESCRIPTION:	Bottom 2	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	3.6	3.7
DIAMETER, in.	2.8	2.9
WATER CONTENT, %	12.5	22.7
DRY DENSITY, pcf	106	103
SATURATION, %	57	97
(Specific GravIty assumed as 2.7)		
SAMPLE COLOR	Yellow	
SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

#### **TEST DATA**

	ASTM D-5084,	Method C	
EFFEC	TIVE STRESS:	5 psi	
GRADIENT RANGE:		2 - 3	
IN/OU	T RATIO:	1.01	
		HYDRAULIC	
TRIAL	TIME	CONDUCTIVITY	
nos.	<u>hrs.</u>	cm/sec	
1	24.1	8.9E-08	
2	48.2	9.1E-08	
3	72.2	8.6E-08	
4 96.1		8.6E-08	

AVERAGE LAST 4:

8.8E-08

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Z : Solls Lab\Perms \1910 \ 10-11-12 \ 1941

Print Date: 12/06/10

Micah Mullin



Corporate Office: 3404 Alrway Blvd, Amarillo TX 79118

Central Texas: 9855 FM 847 Dublin TX 76446 New Mexico: 110 East Mill Road Artesia NM 88210

#### **CERTIFICATION**

Wyly #1 Dairy Erath County, Texas

#### Liner Maintenance Certification - RCS #2

Where a soil liner is installed to prevent hydrologic connection, the operator must maintain the liner to inhibit infiltration of wastewaters to the underlying soils and groundwater. Liners shall be protected from animals by fences or other protective devices. No trees shall be allowed to grow within the potential distance of the root zone. Documentation of liner maintenance shall be maintained in the pollution prevention plan.

#### Description of Disturbance:

Wyly #1 Dairy repaired the north sidewall of RCS #2 due to leaking in the summer of 2019.

#### Action Taken:

At the request of Wyly #1 Diary, Enviro-Ag Engineering, Inc. made an inspection of the soil on the north sidewall of RCS #2 on October 10, 2019 to ensure that its integrity was not compromised after mechanical repairing of the north sidewall of the pond. A site inspection of the north sidewall revealed no mechanical or structural damage. Two shelby tube core samples of the soil were collected and analyzed for permeability. The results indicated that the soil within the north sidewall of RCS#2 meet the requirements of the TCEQ General Permit.

Respectfully submitted,

Arran Muller

Norman Mullin, P.E. – License No. 66107

Enviro-Ag Engineering, Inc. - Firm No. 2507

Attachments: EAE Permeability Reports

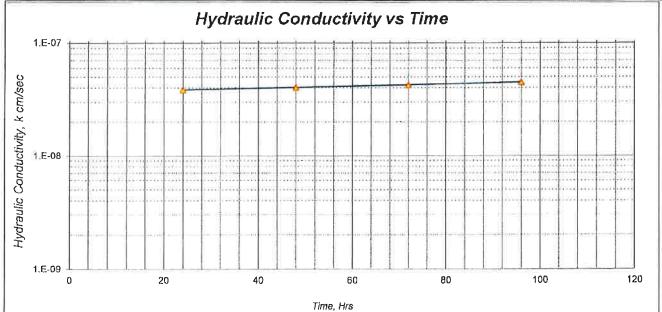
PERM LAB REPORT LOG I.D.	5022		THE CONTRACT OF THE CONTRACT O		#Produce in	Mill Road	5-3500 5-8000
STRUCTURE	8192 Seep# 2				EAE	302 Morgan Bldg C	Stephenville, TX 76401 (254) 965-3500 Fax: (254) 965-8000
TRIAXIAL PERMEABILITY CHAIN OF CUSTODY	7# 877	720		Facility Name: Wyly Darcy	Project Engineer:		Date to Lab: 12/10/19   Received:

3404 Airway Bivd., Amarillo, TX 79118 (806) 353-6123 LABORATORY SERVICES



REPORT ASTM D-5084, Method C

5022 Wyly Dairy 19/24/10 Report Dale: 1 RCS 2 Seep #1 November 7, 2019



#### SPECIMEN DATA

SAMPLE ID:	1	
DESCRIPTION:	RCS 2 Seep #1	
	INITIAL	FINAL
1		
HEIGHT, in.	2.3	2.6
DIAMETER, In.	2.9	2.9
WATER CONTENT, %	13.9	21.4
DRY DENSITY, pcf	118	106
SATURATION, %	88	98
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay	
1		

COMMENTS:

Tap water used as permeant.

#### TEST DATA

TEST DATA		
-	ASTM D-5084, I	Method C
EFFECTIVE STRESS:		5 psi
GRADIENT RANGE:		2 - 3
IN/OUT	TRATIO:	1.00
		HYDRAULIC
RIAL	TIME	CONDUCTIVITY
nos.	hrs.	<u>cm/sec</u>
1	24.0	3.9E-08
2	48.0	4.1E-08
3	72.0	4.3E-08
4	96.0	4.5E-08
	jā.	
AVEF	RAGE LAST 4 :	4.2E-08

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Z: Solis Lab/Perms \1979 \19/24/10\5022 Print Date:

Reviewed By:

LSN:

11/13/19

Micah Mullin \_

Enviro-Ag Engineering, Inc.

HYDRAULIC CONDUCTIVITY

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Client / Project Name

LABORATORY SERVICES

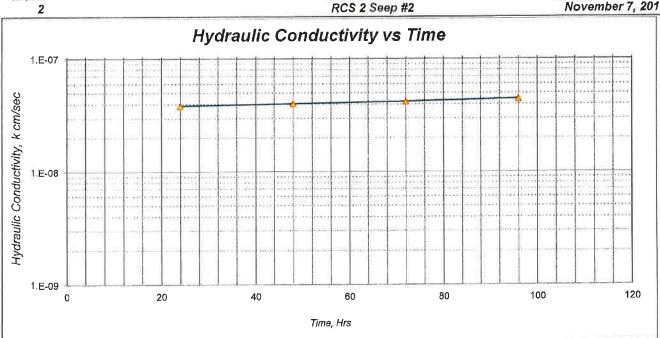
REPORT

ASTM D-5084, Method C Lah Sample Number:

19/24/10 Wyly Dairy Sample ID

5023 Report Data:

November 7, 2019



#### SPECIMEN DATA

	SAMPLE ID:	2	
	DESCRIPTION:	RCS 2 Seep #2	
		INITIAL	FINAL
ı	HEIGHT, in.	2.8	2.8
	DIAMETER, in.	2.9	2.9
ĺ	WATER CONTENT, %	13.9	19.1
	DRY DENSITY, pcf	115	113
	SATURATION, %	80	104
Ì	(Specific Gravity assumed as 2.7)		
ŀ	SAMPLE COLOR	Light Brown	
	SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

#### TEST DATA

	ASTM D-5084,	Method C	
EFFECT	TIVE STRESS:	5 psi	
GRADIE	NT RANGE:	2 - 2	
IN/OUT	T RATIO:	1.00	
		HYDRAULIC	
TRIAL	TIME	CONDUCTIVITY <u>cm / sec</u> 3.9E-08	
nos.	hrs.		
1	24.0		
2	48.0	4.1E-08	
3	72.0	4.2E-08	
4 96.0		4.5E-08	
l			

AVERAGE LAST 4:

4.2E-08

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Z : Soils Lab\Perms \1919 \ 19724/10 \ 5023

11/07/19

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Reviewed By:



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Central Texas: 9855 FM 847 Dublin TX 76446 New Mexico: 203 East Main Street Artesia NM 88210

#### **CERTIFICATION**

Hillside Dairy Erath County, Texas

#### Lack of Hydrologic Certification - Slurry Pit #1

Two Shelby tube core samples were collected from Slurry Pit #1 at Hillside Dairy in Erath County to document that the in-situ soil permeability. The Shelby tube core samples were collected and analyzed by Enviro-Ag Engineering, Inc., of Amarillo, Texas.

#### Permeability Test Result

#1 2.3 x 10<sup>-8</sup> cm/sec

#2 3.3 x 10<sup>-8</sup> cm/sec

Based on the above permeability analysis, the in-situ soils located in Slurry Pit #1 are determined to be suitable for maintaining a Lack of Hydrologic Connection.

Respectfully submitted,

NORMAN H. MULLIN 66107 GVSTER

Norman Mullin, P.E. – License No. 66107 Enviro-Ag Engineering, Inc. – Firm No. F-2507

Attachments: Enviro-Ag Engineering Permeability Reports

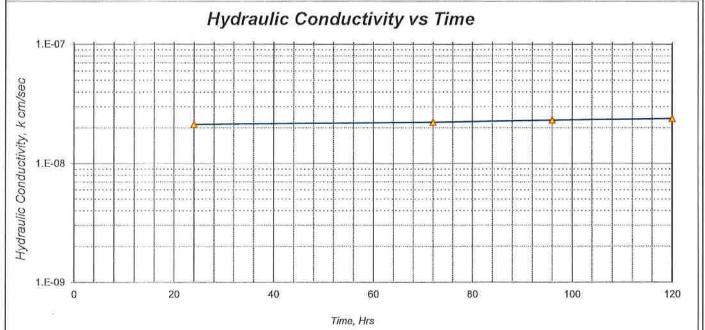
		PERM	LAB
TRIAXIAL PERMEABILITY CHAIN of CUSTODY	STRUCTURE	REPORT I.D.	POO
	Slury p.7 #1		46.33
Facility Name: Hillside Dairy  Project Engineer: No.2 m An Multh  Sampled by: Matthew Gray  Date Sampled: 6/18/18  Date to Lab: 1/- 25-18  Received: An An Multh  Received: An An An An Multh  Received: An	ENGINEE. 9855 Dubli (254	ENGINEERING, INC. 9855 FM 847 Dublin, TX 76446 (254) 965-3500 Fax: (254) 965-8000	6. 6. 000

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REPORT ASTM D-5084, Method C

Client / Project Name: Lab Sample Number. 4637 Hillside Dairy 18/06/26 Sample ID: Sample Location Report Date: Slurry Pit #1 July 11, 2018 1



#### SPECIMEN DATA

SAMPLE ID:	1	
DESCRIPTION:	Slurry Pit #1	
	INITIAL	<u>FINAL</u>
HEIGHT, in.	2.6	2.6
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	13.3	21.8
DRY DENSITY, pcf	109	105
SATURATION, %	65	97
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay	

#### COMMENTS:

Tap water used as permeant.

#### TEST DATA

ASTM D-5084, Method C

EFFECTIVE STRESS: GRADIENT RANGE: IN / OUT RATIO:		5 psi 3 - 4 1.00
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	<u>hrs.</u>	cm / sec
1	24.0	2.1E-08
2	72.0	2.2E-08
3	96.0	2.3E-08
4 120.0		2.4E-08

AVERAGE LAST 4

2.3E-08

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Z : Solls Lab\Perms \1918 \ 18/06/26 \ 4637

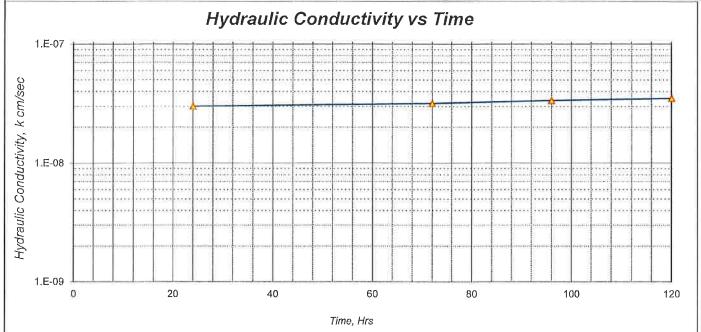
Print Date: 07/18/18 Reviewed By.

Micah Mullin

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REPORT ASTM D-5084, Method C

Client / Project Name Lab Sample Number: 4638 Hillside Dairy 18/06/26 Report Date: July 11, 2018 Slurry Pit #2



#### SPECIMEN DATA

SAMPLE ID:	2	
DESCRIPTION:	Slurry Pit #2	
	INITIAL	FINAL
HEIGHT, in.	2.7	2.7
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	13.7	23.0
DRY DENSITY, pcf	109	104
SATURATION, %	68	101
(Specific Gravity assumed es 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay	

#### COMMENTS:

Tap water used as permeant.

#### TEST DATA

ASTM D-5084, Method C

**EFFECTIVE STRESS:** 

GRADIE	ENT RANGE:	3 - 4
IN/OU	T RATIO:	1.00
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	<u>hrs.</u>	cm / sec
1	24.0	3.0E-08
2	72.0	3.2E-08
3 96.0		3.4E-08
4	120.0	3.5E-08

AVERAGE LAST 4:

3.3E-08

5 psi

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Z : Soils Lab\Perms \1918 \ 18/06/26 \ 4638

07/18/18

Reviewed By

Micah Mullin

## 4.0 WASTE UTILIZATION & NUTRIENT MANAGEMENT PLAN

#### 4.1 Nutrient Utilization

Agronomic application of dairy wastewater enhances soil productivity and provides the crop and forage growth with needed nutrients for optimum growth and vigor. Land application of wastewater will take place according to a Nutrient Utilization/Nutrient Management Plan (NUP/NMP) in accordance with NRCS Codes 590 and 633. The NUP/NMP for crop year 2025 is attached.

Per 30 TAC §321.42(j), existing dairy facilities located in a major sole-source impairment zone may request the TCEQ to allow the operator to provide manure, litter and wastewater to owners of third-party fields (areas not owned, operated, controlled, rented, or leased by the permittee) that have been identified in the PPP. Hillside Dairy requests access to third-party fields to be operated in accordance with 30 TAC §321.42(j)(1)-(4). Third-party written contracts between the permittee and the third-party recipient will be maintained in the PPP. These contracts will confirm that the third party will allow manure, wastewater and slurry from the facility to be beneficially applied at agronomic rates based on the soil test phosphorus in accordance with applicable requirements of 30 TAC §321.36 and §321.40.

A Texas State Soil and Water Conservation Board (TSSWCB) certified Comprehensive Nutrient Management Plan (CNMP) has been developed.

#### 4.2 Waste Handling Procedures

The dairy shall operate under the provisions of 30 TAC §321.42, which describes certain waste management and disposal requirements for individual water quality permits for dairy concentrated animal feeding operations (CAFOs) when an operation is located in a major sole-source impairment zone. Waste disposal options include:

- Beneficial use outside the watershed
- Disposed in permitted landfills outside the watershed
- Delivered to a composting facility approved by the Executive Director
- Other beneficial use approved by the Executive Director
- Applied on-site in accordance with a certified NRCS Code 590/633 NMP or NUP, as dictated by annual soil test results
- Provided to third parties as discussed above in Section 4.1

#### Executive Summary Hillside Dairy WQ0003160000

#### LMU Summary:

LMU's 1, 2, 3, 3A, 4, 4A, 5, and E1 are cropped in Coastal Hay and Small Grains with moderate grazing.

#### Nutrient Summary:

LMU#	Max N	Max P205	Planned N	Planned P
	Lb/ac	Lb/ac	Lb/ac	Lb/ac
	Application	Application	Application	Application
	Rates	Rates	Rates	Rates
1	259	108	86	36
2	259	108	86	36
3	560	233	185	77
3A	169	96	169	96
4	260	108	83	34
4A	460	262	460	262
5	460	191	147	61
E1	189	108	189	108

Supplemental nutrients will be necessary to achieve the desired yields. Commercial fertilizer applications should be split such that individual application events do not exceed 100 lb/Ac.

All remaining manure is to be hauled off by a contract hauler for beneficial use. Offsite manure transfer activities will be in accordance with NRCS and TCEQ requirements for sampling, recordkeeping, and land application.

#### **Waste Utilization and Nutrient Management Plan**

Hillside Dairy

1865 Private Road 1233 Hico, TX

**TCEQ Permit Number:** 

WQ0003160000

Owner

Hillside Dairy, LLC 1865 Private Road 1233 Hico, TX 76457

Type of Organic Nutrient Management Plan:
Other AFO-CAFO Waste Plan

located in Erath County

Prepared By:

(Signature)

Stephen Colby

Certified Nutrient Management Specialist

Certificate Number = TX2025004

Expiration Date = December 31, 2025

Enviro-Ag Engineering

9855 FM 847

Dublin, TX 76446

(254) 233-9948

This plan is based on: 590 Organic Nutrient Management Plan V 5.0

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**EXECUTIVE SUMMARY:** Permit #: WQ0003160000 This Nutrient Management Plan has fields that meet NMP and/or NUP requirements. See Attached Executive Summary

### LOCATION AND PURPOSE OF THE PLAN

This animal operation is located in **Erath** County (see attached topo map and plan map for location.) The purpose of this plan is to outline the details of the land application of the effluent and solids produced by this operation. When the plan is fully implemented, it should minimize the effects of the land application of animal wastes on the soil, water, air, plant, and animal resources in and around the application area. This plan, when applied, will meet the requirements of the Natural Resources Conservation Service Waste Utilization Standard and Nutrient Management Standard.

The plan is for the year of 2025 and will remain in effect until revision based on new soil or manure analysis or crop change (yield or crop) result in a new P-Index rating or plan classification (NMP-NUP). The waste has been stored in a Dairy Lagoon . Approximately 4500 head will be confined with the average weight of 1400 pounds. The animals will be confined 24 hours per day for 365 days per year.

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**TABLES 1, 2 and 2a** Permit #: WQ0003160000

Values in Table 1 may be based on actual analysis or "book" values during the initial planning to determine land application rates for the initial plan. When "book" values are used, they will be from NRCS, Texas Cooperative Extension or averages from other TX testing lab sources. Site specific data will be used as soon as feasible after production begins. Manure and/or effluent will be tested at least annually or in the year of application if it is stored for more than one year. If the actual values are more than 10% higher or lower than the estimated values, this plan will need to be revised accordingly.

Application of waste products may be made up to the Maximum Rate given in Table 2 or 2a as applicable. Table 2 applies to those that are subject to Nutrient Management Plan (NMP) requirements while Table 2a applies when subject to Nutrient Utilization Plan (NUP) requirements. Current requirements for both the NMP and NUP are given in the headers of the tables. Table 2a has a criteria involving the distance to a named stream when the Soil Test P Level is above 200 ppm in arid areas as well as special requirements when the site is in a TMDL watershed designated by TCEQ. For various P Index Ratings, the maximum rates in Table 2 are based on crop requirements, whereas the maximum rates in Table 2a are based on crop removal rates. County avg. rainfall information can be found in the TX Agronomy Technical Note 15, Phosphorus Assessment Tool for Texas, located in the eFOTG at the address given in the section entitled "Collecting Soil Samples for Analyses".

### **CROP REMOVAL RATES:**

Crop Removal Rates of nitrogen (N), phosphorus (P), and potassium (K) in pounds per acre are given in Table 3 for the crop and yield planned for each field. This Table is included for information only, and should be used during the planning process to compare planned or maximum application rates to crop removal. Crop removal rates may be based on actual analysis of harvested material or default values in the database. P build-up will occur at higher rates when crop removal rates are exceeded..

### **SOLIDS APPLICATION:**

The maximum solids application rates are given in Table 4 along with the current soil test P level, maximum P<sub>2</sub>O<sub>5</sub> application rate, maximum tons per acre of solids and the total tons of solids per field that can be applied to each field. The maximum tons of solids that can be utilized on the fields planned is indicated in the box near the lower left corner of Table 4. When the total application acres of the fields are adequate to allow all of the solids to be applied, "Adequate" will be indicated below the tonnage in this box. If "Not Adequate" is indicated, then the lower box will indicate the tons of solids that must be utilized off-site unless more fields/acres are added. This plan is valid only if the application of waste to the crops listed does not exceed the per acre rates by more than 10%. If the yield of a crop does not meet the expected goal, the application rate should be adjusted the following year.

The estimated amounts of N,  $P_2O_5$ , and  $K_2O$  contained in the solids are provided in Table 5 for the maximum application rate. Supplemental N and  $K_2O$  will be applied to achieve the yield goals in Table 4 when recommended by the soil test and the maximum rate of the solids does not meet the crop needs. When the maximum application rate is applied and Table 5 indicates additional commercial nutrients, they **must** be applied to fields as indicated. **NOTE:** If additional nitrogen is recommended, the producer should consider collecting soil samples from the 6 - 36 inch layer to see if there is any additional deep nitrogen available. Additional deep nitrogen within the root zone of the crop can be substituted for supplemental commercial nitrogen, and should be included in the soil test N ppm entry.

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SOLIDS APPLICATION: (cont)

Permit #:

WQ0003160000

In situations where more land is available than is needed to utilize the maximum application rate on each field, the application rates in Table 6 have been reduced to the level that does not exceed the amount of solids produced. Table 7 indicates the amount of nutrients provided and, if needed, the supplemental nutrients which **must** be applied when the application is based on these rates. The amounts of supplemental nutrients in Table 7 are based on the actual amount of waste available rather than the **maximum** rate that "**could**" be applied.

The second line from the bottom of Table 6 on the right has a box that will be "YES" or "NO". When the reduced rates use all solids to be produced in a year, this box will be "Yes". If the percentages are too low, it will be "No". If "No", either more acreage is needed on which to apply the solids or the solids will need to be transported off-site. The amount is located on the bottom line on the extreme right of the page.

Actual application will be based on the quantities produced, as well as, current manure analyses. Application at the MAXIMUM rates shown in Table 4 will result in a more rapid build-up of phosphorus than if applied at lower rates. A different percentage may be used as long as the rate does not exceed the maximum shown in Table 4 for the field and the proper amount of supplemental nutrients are applied. Applying a lower rate to the fields with higher soil test P levels will slow down the P buildup and extend their land application life. Phosphorus will also build up more rapidly on pastureland than on hayland or cropland, since very few nutrients are actually removed by grazing animals.

The solids may be applied to the same acreage every year according to Table 2 or 2a. The annual rates in both Table 4 and 6 may be doubled not to exceed the 2X the annual nitrogen requirement or nitrogen removal rate, as applicable. When the full biennial rate has been used, no additional phosphorus fertilizer or animal wastes may be applied in the alternate year. A column in both tables indicates whether the rates given are Annual Rates (A) or Biennial Rates (B). Rates given are based on Table 2 or 2a as applicable. Annual application rate for fields in a TMDL area with a Soil Test P level equal to or greater than 500 ppm or any field in a TMDL area with P Index Rating of Very High is 0.5 annual crop removal rate.

### **EFFLUENT APPLICATION:**

The maximum effluent application rates are given in Table 8 for each field. This table provides the current soil test P level, maximum P<sub>2</sub>O<sub>5</sub> application rate, effluent either in gallons per acre or acre inches per acre and the amount of effluent that can be applied per field. The maximum amount of effluent that can be utilized on the fields planned is indicated in a box near the lower left corner of Table 8. When the total application acres are adequate to allow all of the effluent to be applied, "Adequate" will be indicated below this box. If "Not Adequate" is indicated, then the lower box will indicate the amount of effluent that must be utilized off-site unless more field acres are added.

The estimated amounts of N, P, and K contained in the effluent are provided in Table 9 for the maximum application rate indicated in Table 8. Supplemental N and  $K_2O$  will be applied to achieve the yield goals when recommended by the soil test and the maximum rates of the effluent do not meet the crop requirements. **NOTE:** If additional nitrogen is recommended, the producer should consider collecting soil samples from the 6 - 36 inch layer to see if there is any additional deep nitrogen available. Additional deep nitrogen within the root zone of the crop can be substituted for supplemental commercial nitrogen.

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EFFLUENT APPLICATION: (cont) Permit #: WO0003160000

In situations where more land is available than is needed to utilize the maximum application rate on each field, the application rates in Table 10 have been reduced to the level that does not exceed the amount of effluent produced. Table 11 indicates the amount of nutrients provided and, if needed, the supplemental nutrients which **must** be applied when application is made based on the rates in Table 10. These amounts of supplemental nutrients in Table 11 are based on the planned amount of effluent available rather than the **maximum** rate that **"could"** be applied.

The bottom line on the right of Table 10 has a box that will be "YES" or "NO". When the reduced rates uses all effluent to be produced in a year, this box will be "Yes". If the percentages are too low, it will be "No". If "No" is indicated, either more acreage is needed on which to apply the effluent or the effluent will need to be transported offsite.

Actual application will be based on the quantities produced, as well as, current manure analyses. Application at the MAXIMUM rates shown in Table 8 will result in a more rapid build-up of phosphorus than if applied at lower rates. A different percentage may be used as long as the rate does not exceed the maximum shown in Table 8 for the field and the proper amount of supplemental nutrients are applied. Applying a lower rate to fields with higher soil test P levels will slow down the P buildup and extend their land application life. Phosphorus will also build up more rapidly on pastureland than on hayland or cropland, since very few nutrients are actually removed by grazing animals.

The effluent may be applied to the same acreage every year according to Table 2 or 2a. The annual rates in both Table 8 and 10 may be doubled not to exceed the 2X the annual nitrogen requirement or nitrogen removal rate, as applicable, when the full biennial rate has been used, no additional phosphorus fertilizer or animal wastes may be applied in the alternate year. A column in both tables indicates whether the rates given are Annual Rates (A) or Biennial Rates (B). Rates given are based on Table 2 or 2a as applicable. Annual application rate for fields in a TMDL area with a Soil Test P level equal to or greater than 500 ppm or any field in a TMDL area with P Index Rating of Very High is 0.5 annual crop removal rate.

Maximum Hourly Application Rate - The maximum hourly application rate is determined by the texture of the soil layer with the lowest permeability within the upper 24 inches of the of the predominant soil in each field. The hourly application rate must be low enough to avoid runoff and/or ponding. For effluent with 0.5% solids or less, **DO NOT** exceed the rates shown in Table 1 of the attached Job Sheet titled, "Waste Utilization, Determining Effluent Application Rates". If the effluent contains more than 0.5% solids, those values must be reduced by the appropriate amount shown in Table 2 of the attached "Waste Utilization, Determining Effluent Application Rates" Job Sheet.

Maximum One-Time Application Rate - The maximum amount of effluent that can be applied to a given field at any one-time is the amount that will bring the top 24 inches of the soil to 100% field capacity. This amount is determined by subtracting the amount of water stored in the soil (estimated by feel and appearance method) from the available water holding capacity (AWC) of the soil. The available water holding capacity of the top 24 inches of the predominant soil of each field receiving effluent and the texture of the most restrictive layer in the upper 24 inches are given in Table 12.

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EFFLUENT APPLICATION: (cont)

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To determine any one-time application amount, the current percent of field capacity (FC) of the upper 24 inches of the predominant soil in the field should be estimated using the guidance in Table 3 of the attached Job Sheet, "Waste Utilization, Determining Effluent Application Rates, rev 4/06". Additional information on estimating soil moisture can be found in the NRCS Program Aid 1619, "Estimating Soil Moisture by Feel and Appearance", or from the University of Nebraska Extension publication No. G84-690-A by the same name. Both of these publications have pictures of various soils at different percentages of field capacity to be used as a guide to estimating soil moisture. Once the current percent of FC is estimated, it is subtracted from the AWC amount in Table 12 for the given field and the difference is the maximum application for those soil conditions on that day. Remember, the maximum hourly application and the maximum one time application rates are only estimates to be used as a guide.

Solids/Effluent Land Application: - Land application of solids and/or effluent should be made at appropriate times to meet crop needs, but can be made at any time as long as the total annual (or biennial) rate, maximum hourly rate, and the maximum one time application rates are not exceeded. Effluent should be surface applied uniformly. No runoff or ponding should occur during application thus frequent observations should be made. Neither effluent or solids will be applied to slopes >8% with a runoff curve >80, or steeper than 16% slope with a runoff curve of 70 or greater, unless the application is part of an erosion control plan. Waste will not be spread at night, during rainfall events, or on frozen or saturated soils if a potential risk for runoff exists. Waste will not be applied to frequently flooded soils during months when the soils typically flood. If frequently flooded soil occur on any potential application field see attached, "Water Features Table", for months when flooding is expected. Solids should be applied with a manure spreader as uniformly as feasible. Surface applications with trucks should only be made when soil conditions are favorable in order to minimize soil compaction.

### Managing Runoff -

A minimum 100 ft. setback or vegetated buffer (Filter Strip, Field Border, Riparian Forested Buffer, etc.) will be established and maintained between the application area and all surface water bodies, sink holes, and watercourses as designated on Soil Survey sheets or USGS topographic maps. A minimum application distance from private and public will be 150 ft. and 500 ft. respectively. A minimum application distance from water wells used exclusively for agricultural irrigation will be 100 ft. Table 9 provides a summary of the setbacks and out areas of each field.

### Managing Leaching -

When soils with sandy, loamy sand, or gravelly surface textures have a Nitrogen Leaching Index score of >2 appropriate measures will be used to minimize the potential of leaching. These measures will include, split applications of waste, and may include double cropping, or cover crops, and irrigation water management (on fields that receive supplemental or full irrigation).

### **MORTALITY MANAGEMENT:**

All mortality will be disposed of properly within 3 days according to the Texas Commission on Environmental Quality (TCEQ) rules. The preferred method for disposal of routine mortality is by a rendering plant. Before planning this method, contact the facility or its representative to be informed of special handling procedures, equipment needs, scheduling requirements, etc. Maintain a list of contact phone numbers so information will be readily available following a catastrophic die-off. Verify that local companies which have previously picked up and/or rendered dead animals are still doing so. A number of rendering companies across the state have stopped dead animal pick up service, and others have raised their fees significantly. Periodically review the availability and cost of rendering so that the plan can be modified if necessary. This can be an excellent option if mortality can be loaded and transported while still fresh or the mortality can be refrigerated until loaded and transported.

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MORTALITY MANAGEMENT: (cont)

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Disposal in a landfill may be an option in some locations. Before planning this option, the closest commercial, regional, county, or municipal landfill should be contacted to determine if the landfill has a permit which would allow acceptance of dead animals (swine, sheep, cattle, etc.). Also ask if there are any restrictions on type and volume of animal mortality that will be accepted at the facility. Landfill fees and transport, offloading, and handling procedures should be discussed with landfill managers and documented for reference when needed. The landfill is not a viable option if the producer does not own or have access to a vehicle capable of transporting mortality quickly in an emergency situation. After a catastrophic die-off is not a good time to find out that a driver and truck to transport mortality will not be available for several weeks (MAKE ARRANGEMENTS NOW, NOT AFTER THE ANIMALS ARE DEAD).

On-farm disposal of catastrophic mortality may be considered if site conditions permit. On-farm methods include burial, composting, and incineration. Incinerators and composters are excellent options for routine mortality but usually do not have the capacity to handle mortality volumes associated with catastrophic events. Composting and incineration should not be relied on for catastrophic mortality handling without a documented evaluation of worst anticipated mortality condition (number, type, and weight of animals), and the anticipated capacity of the system (i.e., lb./hr. incineration rate, hrs/day of operation). NRCS Mortality Facility Standard 316 will be used for all mortality management.

See the attached soil interpretation, ENG - Animal Mortality Disposal (Catastrophic) Trench, to make a preliminary assessment of the limitations of the soils on this farm for burial of catastrophic mortality. The attached TX NRCS Technical Guidance, Catastrophic Animal Mortality Management (Burial Method) should be used as a guide to overcome minor limitations and as design criteria for the construction of burial pits for catastrophic mortality. Mortality burial sites shall be located outside the 100 -year floodplain. Mortality burial will not be less than 200 feet from a well, spring, or water course. A FIELD INVESTIGATION BY A QUALIFIED PROFESSIONAL SHOULD BE MADE BEFORE AN AREA IS USED FOR A BURIAL SITE FOR CATASTROPHIC MORTALITY EVENTS. The TCEQ Industrial and Hazardous Waste Permits Section, MC-130, must be contacted before burial of catastrophic mortality.

TCEQ Industrial and Hazardous Waste Permits Section, MC-130 PO Box 13087 Austin, TX 78711-3087 Phone: 512-239-2334 Fax: 512-239-6383

### Air Quality:

The following steps should be taken when spreading effluent or solids to reduce problems associated with odor.

- 1. Avoid spreading effluent or solids when wind will blow odors toward populated areas.
- 2. Avoid spreading effluent or solids immediately before weekends or holidays, if people are likely to be engaged in nearby outdoor activities.
- 3. Avoid spreading effluent or solids near heavily traveled highways.
- 4. Make applications in the morning when the air is warming, rather than in the late afternoon.
- 5. All materials will be handled in a manner to minimize the generation of particulate matter, odors, and greenhouse gas emissions.

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### EFFLUENT AND SOLIDS STORAGE & TESTING:

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Effluent and solids will be stored in facilities designed, constructed, and maintained according to USDA NRCS Standards and specifications.

Effluent and solids sampling is needed to get a better idea of the nutrients actually being applied. Effluent and/or solids samples will be collected at least annually, or in the year of its use if waste is typically stored for more than 1 year. The samples will be submitted immediately to a lab for testing. If sent to Texas A&M soil lab or SFASU Soil Testing Lab for analysis, use the "plant and forage analysis" form and note the type of operation. Request that the manure be analyzed for percent dry matter, solids, total nitrogen, total phosphorus, and total potassium. Further information on collecting effluent and manure samples for analysis can be found in the TCE publication No. L-5175, "Managing Crop Nutrients Through Soil, Manure and Effluent Testing". TCEQ sampling rules and testing requirements will be followed on permitted sites.

### **COLLECTING SOIL SAMPLES FOR ANALYSIS:**

Collect a composite sample for each field (or area of similar soils and management not more than 40 acres in size) comprised of 10 - 15 randomly selected cores. Each core should represent 0 - 6 inches below the surface except for when injection has been done over 6" in depth, then the core should represent the 3-9" layer. Thoroughly mix each set of core samples, and select about a pint of the mixture as the sample for analysis. Label each sample for the field that it represents. Request that the samples be analyzed for nitrate nitrogen, plant-available phosphorus, potassium, sodium, magnesium, calcium, sulfur, boron, conductivity; and pH. Also note on the samples that they are from an effluent or solids application area. **TCEQ sampling rules and testing requirements will be followed on permitted sites.** A weighted average of 0-2 and 2-6 inch layers will be used for calculations on permitted sites.

Further information on collecting soil samples can be found on the TCE Form D-494, p 2, TCE Publication No. L-1793, and TCEQ RG-408. Additional NRCS guidance and requirements can be found in the Nutrient Management (590) standard located in the Texas electronic Field Office Technical Guide (eFOTG) at:

http://efotg.nrcs.usda.gov/efotg\_locator.aspx?map=TX

Click the county desired.

Click Section IV in the left column under eFOTG

Type: 590 in the Search Menu above eFOTG and click: GO

Click on the desired item under Nutrient Management in the left column

### **SOIL ANALYSIS:**

A soil analysis will be completed for all areas to be used for all effluent or solids application areas. The soil test analysis method will be **Mehlich III with inductively coupled plasma (ICP)**. The area will be tested and analyzed at least annually to monitor P build up.

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Permit #:

Estimated Annual Excess

WQ0003160000

Detailed records should be maintained by the producer for all application of animal waste to land owned and operated by the producer. Records should include date, time, location, amount of application, weather conditions, estimated wind speed and direction, etc. A rain gauge should be in place at the application site and accurate records of rainfall should be maintained at the site. All records must be kept for at least 5 years. TCEQ requirements will be followed on permitted sites.

Records should also be kept showing amounts of litter given or sold to others. A copy of the effluent analysis and/or solids analysis and a Waste Utilization Guidelines Sheet should be given to anyone who will use either the effluent or solids off-site. If they routinely use animal wastes for fertilizer, they should be directed to the local Soil and Water Conservation District or NRCS office to develop a Waste Utilization and Nutrient Management Plan for their land.

This portion may be completed by producer, if desired or recorded elsewhere.

Date Amo	ount Haule	er or Recipient
		=

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### **OPERATION AND MAINTENANCE:**

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Application equipment should be maintained in good working order and it should be calibrated annually so that the desired rate and amount of effluent and solids will be applied.

Information on calibrating manure spreaders can be found in the TCE publication No. L-5175, "Managing Crop Nutrients Through Soil, Manure and Effluent Testing". Information on calibrating big gun sprinklers can be found in the Arkansas Extension publication, "Calibrating Stationary Big Gun Sprinklers for Manure Application". For information on calibrating tank spreaders, traveling guns, and additional information on other manure spreading equipment, see Nebraska Extension publication No. G95-1267-A, "Manure Applicator Calibration". Observe and follow manufacturer's recommended maintenance schedules for all equipment and facilities involved in the waste management system. For information on lagoon functions, refer to TCE publication E9, "Proper Lagoon Management".

Any changes in this system should be discussed with the local Soil and Water Conservation District, USDA Natural Resources Conservation Service, or other qualified professional prior to their implementation.

Plan Prepared by: Stephen Colby

Date: 4/16/2025

Plan Approved by: Date: 4/16/25

Producer Signature: Discussed with Newbour Date: 4/16/25

The producer's signature indicates that this plan has been discussed with him/her. If this plan is not signed by the producer, indicate how the plan was provided to the producer.

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Table 1 - Estimated Effluent and Solids Quantities Produced

Permit #:

WQ0003160000

Avg. Number of Animals
4,500

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Type of Waste	
Dairy Lagoon	
Other Solids	

Contact the local Soil and Water Conservation District or USDA Natural Resources Conservation Service office if the total number of animals change by more than 10% so your plan can be revised.

Estimated Acre Inches of Effluent to be Available Annually\* 934

Estimated Tons Solids to be Land Applied Annually (on or off site)\* 124,832.0

\*From engineering design,

Estimated 1	Nutrient Availab	oilty			Estimated I	Nutrient Ava	ailabilty	
Effluent					Solids			
	pounds/yr	Pounds / 1000 gal	Pounds / Acre Inch			pounds / yr	pounds / ton	
N	23,374	0.92	25.0	**	N	683,081	5.5	**
P2O5	9,697	0.38	10.4		P2O5	388,777	3.1	
K2O	55,895	2.20	59.8		K2O	772,960	6.2	
**	Effluent Values	Based on An	alysis		** Solids V	alues Based	on Analysi	S
date	d:	<b>June 14, 202</b> 4	l .		dated:	June 1	4, 2024	

Default values were used on all fields for plant removal of nutrients and yield levels.

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TABLE 2. A Nutrient Management Plan (NMP) is required where Soil Test P Level \_1' is:

- · less than 200 ppm statewide or
- or < 350 ppm in arid areas 2/ with a named stream > one mile.

P – Index Rating	Maximum TMDL Annual P Application Rate <sup>5/</sup>	Maximum Annual P Application	Maximum Biennial Application Rate
Very Low, Low	Annual Nitrogen (N) Requirement	Annual Nitrogen (N) Requirement	2.0 Times Annual N Requirement
Medium	2.0 Times Annual Crop P Requirement <sup>3/</sup>	2.0 Times Annual Crop P Requirement 3/	2.0 Times Annual N Requirement
High ⁵	1.5 Times Annual Crop P Requirement <sup>3/</sup>	1.5 Times Annual Crop P Requirement <sup>3/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Requirement
Very High <sup>5</sup>	1.0 Times Annual Crop P Requirement <sup>3/</sup>	1.0 Times Annual Crop P Requirement <sup>3/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Requirement

### TABLE 2a. A Nutrient Utilization Plan (NUP) is required by TCEQ where Soil Test P Level 1/2 is:

- equal to or greater than 200 ppm in non-arid areas <sup>2/</sup> or
- equal to or greater than 350 ppm in arid areas 21 with a named stream greater than one mile or
- equal to or greater than 200 ppm in arid areas 21 with a named stream less than one mile.

P – Index Rating	Maximum TMDL Annual P Application Rate <sup>5/</sup>	Maximum Annual P Application	Maximum Biennial Application Rate
Very Low, Low	1.0 Times Annual Crop P Removal <sup>4/</sup>	Annual N Crop Removal	2.0 Times Annual N Removal
Medium	1.0 Times Annual Crop P Removal <sup>4/</sup>	1.5 Times Annual Crop P Removal <sup>4/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal
High ⁵	1.0 Times Annual Crop P Removal <sup>4/</sup>	1.0 Times Annual Crop P Removal <sup>4/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal
Very High <sup>5</sup>	0.5 Times Annual Crop P Removal <sup>4/</sup>	0.5 Times Annual Crop P Removal <sup>4/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal

### **Footnotes Applicable to both Tables**

- 1/ Soil test P will be Mehlich III by inductively coupled plasma (ICP).
- 2/ Non-arid areas, counties receiving => 25 inches annual rainfall, will use the 200 ppm P level while arid areas, counties receiving < 25 inches of annual rainfall, will use the 350 ppm P level. See map in TX Agronomy Technical Note 15, Phosphorus Assessment Tool for Texas, for county designations.</p>
- 3/ Not to exceed the annual nitrogen requirement rate.
- 4/ Not to exceed the annual nitrogen removal rate.
- 5/ When soil test phosphorus levels are ≥ 500 ppm, with a P-Index rating of "High" or "Very High", there will be no additional application of phosphorus to a CMU or field.

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### Pl Index by Field

000	Soil Test Date:	9/19/24	9/19/24	9/19/24	9/30/24	9/19/24	9/19/24	9/19/24	9/30/24
WQ0003160000 4/16/2025 Erath >25.0 inches	P Runoff Potential	Medium							
Permit #: Date: Location: Rainfall:	eżnio9 xəbni leżoT	16.5	16.5	16.5	20	18.5	20	18.5	20
	Soil Erosion	0	0	0	0	0	0	0	0
V 5.0	Runoff Class	2	7	7	7	4	7	4	2
t Plan	Proximity of Appl to Named Stream	0	0	0	0	0	0	0	0
gemeni	Organic Method & Timing	0.5	0.5	0.5	4	0.5	4	0.5	4
Manag	اnorganic Method & Timing	0	0	0	0	0	0	0	0
lutrient Management Plan V 5.0	Organic P <sub>2</sub> O <sub>5</sub> Appl Rate	9	9	9	ဖ	9	9	9	9
	Inorganic P₂O₅ Appl Rate	0	0	0	0	0	0	0	0
ased	Soil Test P Level	ω	∞	ω	∞	œ	œ	∞	œ
plan is based on:	Runoff Curve	87	87	87	87	87	87	87	87
This pl	Slope	1.1%	2.1%	1.8%	1.8%	2.1%	1.6%	3.2%	2.1%
Printed on: 4/16/25 12:17 PM Client Name: Hillside Dairy Planner: Stephen Colby	LMU or Fields Crop	Coastal Hay 4 cut, SG mod graze	Coastal Hay 4 cut, SG mod graze	Coastal Hay 4 cut, SG mod graze	Coastal Hay 3 cut, SG mod graze	Coastal Hay 4 cut, SG mod graze	Coastal Hay 3 cut, SG mod graze	Coastal Hay 3 cut, SG mod graze	Coastal Hay 4 cut, SG mod graze
<u>P</u> <u>Q</u>	ГМО	<u>~</u>	7	က	3A	4	4 <b>A</b>	2	П

Table 3 - Crop Removal Rates (For Information Only)  Permit #: WQ000310	
	0000
Total Est.   Total Est.   Total Est.	
TCEQ U.S. N P <sub>2</sub> O <sub>5</sub> K <sub>2</sub> O Plan B Removal Removal Removal	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
1 50.0 Coastal Hay 4 cut, SG mod graze M NUP Default 357 108 318	
2   39.0   Coastal Hay 4 cut, SG mod graze M   NUP   Default   357   108   318	
3   47.0   Coastal Hay 4 cut, SG mod graze M   NMP   Default   357   108   318	
3A   65.0   Coastal Hay 3 cut, SG mod graze M   NUP   Default   319   96   284	
4 48.0 Coastal Hay 4 cut, SG mod graze M NUP Default 357 108 318	
4A   42.0   Coastal Hay 3 cut, SG mod graze M   NMP   Default   319   96   284	55
5   21.0   Coastal Hay 3 cut, SG mod graze M   NMP   Default   319   96   284	
E1   60.0   Coastal Hay 4 cut, SG mod graze M   NUP   Default   357   108   318	

NOTE: When crops are used for grazing, only a portion of the nutrients used by the crop are removed from the field in the live weight gain of the livestock, the remainder is returned to the land in manure and urine. The book "Southern Forages" estimates the N, P, & K removed in 100 pounds live weight gain as follows: 2.5 lbs N, 0.68 lbs P, 0.15 lbs K

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Table 4 - Maximum Solids Application per Field

Est. Solids Produced Annually (wet tons) 124,832	LMU or Field No.	Acres	Crop Management and PI runoff potential	Current Soil Test P Level (ppm)	Max Annual P2O5 lbs/acre	Annual/Biennial	Maximum Solids Allowable Tons/Acre	Maximum Allowable Application Per field (Tons)
	3 3A 4	65.0	Coastal Hay 3 cut, SG mod graze M	235	96	Α	30.9	2007
	4A 5	42.0	Coastal Hay 3 cut, SG mod graze M	187	262	A	84.1	3531
	E1	60.0	Coastal Hay 4 cut, SG mod graze M	212	108	A	34.6	2074
Total Solids Application Acres 167								
Application Allowable on-site (tons) 7611.6 Not								
Solids to be used offsite (tons)								

End of Table 4

WQ0003160000

Permit #:

Table 5 - Nutrients Applied/Needs at Maximum Solids Rates

Permit #:

WQ0003160000

(1)		turi iccus ut iii	aximum Solid	3 Itales	Permit #:	W Q000	3160000
	1	plied When Ap Maximum Rate	s		ntal Nutrients Neo Maximu	m Rates	
LMU / Field #	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K₂O Lb/ac	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac	Lime T/Ac
1 2							
3							
3A	169	96	191	185	0	0	0
4 4A	460	262	521	0	0	0	0
5							
E1	189	108	214	310	0	0	0
						T.	

**Table 6 - Planned Solids Application Rates** 

LMU or Field   2	Table 0 - 1	14	innea .	Solids Application Nates				remm #.	w Qood.	
Acres   167.0   167.0   167.0   124832   Tons of wet solids produced Annually   235   A   30.9   100   30.9   2007.4   2007.4   30.9   100   30.9   2007.4   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   20	LMU or Field	ouble crop	Acres	Cron Management and PI runoff notential	Current Soil Test	vnnual / Siennial	Max Rate	Maximum	Solids	field
Acres   167.0   167.0   167.0   124832   Tons of wet solids produced Annually   235   A   30.9   100   30.9   2007.4   2007.4   30.9   100   30.9   2007.4   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   20	1	H	710.00	erop management and 17 failed potential	, pp	<u> </u>	10110740	to apply	tonardo	(60110)
Acres   167.0   167.0   167.0   124832   Tons of wet solids produced Annually   235   A   30.9   100   30.9   2007.4   2007.4   30.9   100   30.9   2007.4   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   100   30.9   2007.4   30.9   20	1									
Acres   167.0     167.0	1									
A	3									
Acres	3A		65.0	Coastal Hay 3 cut, SG mod graze M	235	Α	30.9	100	30.9	2007.4
Acres	4									
S   E1	1		42.0	Coastal Hay 3 cut. SG mod graze M	187	A	84 1	100	84 1	3530.7
Acres   167.0   167.0   Tons of wet solids produced Annually   Will the planned per acre application rates use all of the Solids?   7611.6   NO			12.0		,		0	100	0	323017
Acres 167.0  124832  Tons of wet solids produced Annually  Will the planned per acre application rates use all of the Solids?  7611.6  NO			60.0	Coastal Hay A cut SG mod graze M	212		246	100	24.6	2072.5
124832 Tons of wet solids produced Annually use all of the Solids? NO	EI		60.0	Coastal Hay 4 cut, 50 mod graze W	212	A	34.0	100	34.0	2073.5
124832 Tons of wet solids produced Annually use all of the Solids? NO										
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Tons to be used off-site at Max. rates Tons to be used off-site at planned rates 117220		JZ	_							
	0			Tons to be used off-site at Max. rates	Tons to	be u	sed off-	site at plar	nned rates	117220

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Plan is based on: 590 Organic Nutrient Management Pl:

Permit #:

WQ0003160000

Table 7 - Nutrients Applied/Needed at Planned Solids Rates

Permit #:

WQ0003160000

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	Nutrients	Applied at Planr	ned Rates	Supplemen	ital Nutrients Ne	eded at Planne	d Rates
LMU / Field #	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K₂O Lb/ac	Lime T/Ac
1							
2 3		1					
3							
3A	169	96	191	185	0	0	0
4							
4A	460	262	521	0	0	0	0
5							
E1	189	108	214	310	0	0	0
							h
					<u> </u>		

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WQ0003160000

Permit #:

Table 8 - Maximum Effluent Application Per Field

Est. Available   Effluent   LMU or   Acres   Field No. Acres   Field No. Acres   Acres   Effluent   LMU or   Acres   Effluent   LMU or   Acres   Effluent   LMU or   Acres   Effluent   Effluent   Acres   Effluent   Acres   Effluent   Acres   Effluent   Acres			-	_		r				
Source:   2   39.0     Coastal Hay 4 cut, SG mod graze M   384   108   A   10.4   404				П				lial		Maximum
934	Est Available			do				ienr		
Source:   2   39.0     Coastal Hay 4 cut, SG mod graze M   384   108   A   10.4   404	1			le ci				al/B		
Source:   2   39.0     Coastal Hay 4 cut, SG mod graze M   384   108   A   10.4   404	1		Acres	orp)	Crop Management and Pl runoff notential			luu.		
Source:   2   39.0     Coastal Hay 4 cut, SG mod graze M   109   232   A   22.4   1053				₽						
Total Effluent Application Acres 205   Maximum Effluent Application On-Site (ae in) 2864   Adequate   Effluent to be used Off-Site (ae in) 2864   Adequate   Effluent to be used Off-Site (ae in) 2864   Adequate   Afficience Acres (ac in) 2		-			-					
Dairy Lagoon	Source:	4		l						
Dairy Lagoon		3	47.0	1	Coastal Hay 4 cut, SG mod graze M	109	232	A	22.4	1053
Total   Effluent   Application   Application   Application   Application   Application   Application   Application   Application   Allowable   On-Site   (ac in)   2801   Adequate   Effluent to be used Off-Site (ac in)   (ac in)   Adequate   Application   Allowable   Adequate   Adequa		3A								
Total Effluent Application Allowable On-Site (ac in)	Dairy Lagoon	4	48.0		Coastal Hay 4 cut, SG mod graze M	336	108	Α	10.4	499
Total Effluent Application Acres 205  Maximum Effluent Application Allowable On-Site (ac in) 2861  Adequate  Effluent to be used Off-Site (ac in)		4A								
Total Effluent Application Acres 205  Maximum Effluent Application Allowable On-Site (ac in) 2861  Adequate  Effluent to be used Off-Site (ac in)		5	21.0		Coastal Hay 3 cut, SG mod graze M	152	191	A	18.4	386
Total Effluent Application Acres 205  Maximum Effluent Application Allowable On-Site (ac in) 2861  Adequate  Effluent to be used Off-Site (ac in)										
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Maximum Effluent Application Allowable On-Site (ac in) 2861  Adequate  Effluent to be used Off-Site (ac in)										
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Effluent Application Allowable On-Site (ac in)  2861  Adequate  Effluent to be used Off-Site (ac in)										
Application Allowable On-Site (ac in)  2861  Adequate  Effluent to be used Off-Site (ac in)	I.I.									
Allowable On-Site (ac in)  2861  Adequate  Effluent to be used Off-Site (ac in)										
On-Site (ac in)  2861  Adequate  Effluent to be used Off-Site (ac in)										
(ac in) 2861  Adequate  Effluent to be used Off-Site (ac in)										
Adequate  Effluent to be used Off-Site (ac in)										
Adequate  Effluent to be used Off-Site (ac in)		1								
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used Off-Site (ac in)	Adequate									
used Off-Site (ac in)		-								
used Off-Site (ac in)										
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	0									

End of Table 8

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Table 9 - Nutrients Applied/Needed at Maximum Effluent Rates

Permit #:

WQ0003160000

	Nutrients Ap	oplied When Ap Maximum Rate	plication is at		Supplementa	al Nutrients Nee Maximu	eded When Ap m Rates	pplication is at
LMU / Field #	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac	1	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac	Lime T/Ac
1	259	108	620	Ì	190	0	0	0
2	259	108	620		225	0	0	0
3	560	233	1340		0	0	0	0
3A								
4	260	108	622		265	0	0	0
4A								
5	460	191	1101		0	0	0	0
E1								

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Table	10 - Pl	an	ned Effluent Application Rates			Permit #:	10	WQ000316	
LMU or Field No.	Acres	Double crop	Crop Management and PI runoff potential	Current Soil Test P ppm	Annual / Biennial	Maximum Effluent (ac in/ac)	% of Maximum to apply	Planned Effluent (ac in/ac)	Planned Effluent / field (Ac. In)
1	50.0		Coastal Hay 4 cut, SG mod graze M	270	Α	10.4	33.0	3.4	171
2	39.0		Coastal Hay 4 cut, SG mod graze M	384	Α	10.4	33.0	3.4	133
3	47.0		Coastal Hay 4 cut, SG mod graze M	109	Α	22.4	33.0	7.4	347
3A									
4	48.0		Coastal Hay 4 cut, SG mod graze M	336	Α	10.4	32.0	3.3	160
4A									
5	21.0		Coastal Hay 3 cut, SG mod graze M	152	Α	18.4	32.0	5.9	124
									ı
Acres	205.0		I.		Will	the planne	d applicat	ion rates	935
(1)		đ.V					the Efflue		YES

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Table 11 - Nutrients Applied/Needed at the Planned Effluent Rates

Permit #:

WQ0003160000

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=	Nutrients /	Applied at Plan	ned Rates	Supplemen	tal Nutrients N	eeded at Plann	ed Rates
LMU / Field #	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac	Lime T/Ac
1	86	36	205	365	0	0	0
2	86	36	205	395	0	0	0
3	185	77	442	315	0	0	0
3A					1		
4	83	34	199	445	0	0	0
4A							
5	147	61	352	240	0	0	0
E1							

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Table 12 - Available Water Capacity to 24 inches(or less) of predominant Permit #: WQ0003160000 soil in fields receiving effluent and Texture of the most restrictive soil layer in the upper 24 inches

LMU / Field #	AWC (inches)	Restrictive Texture	LMU / Field #	AWC (inches)	Restrictive Texture
1	1.76	rves Dugout Malote			
2	1.91	Purves Clay			
3	0.75	alatorre Gravelly Cl			
3A					
4	1.87	rves Dugout Malote			
4A		The second secon			
5	1.91	Purves Clay			
E1					
L	I.		<u> </u>		ļ

Table 13 - Non Application Areas by Field

Permit #:

WQ0003160000

FS = 393-Filter Strip; FB = 386-Field Border, RFB = 391-Riparian Forest Buffer; OLEA = Other Land Excluded Ar

	FS	FB	RFB	OLEA	Total		FS	FB	RFB	OLEA	
LMU /	Acres	Acres	Acres		Excluded	LMU /	Acres	Acres	Acres	Acres	Excluded
Field #	0.0	0.0	Acres	Acies	Excluded	Field #	Acies	Acres	Acies	Acies	Excluded
2	0.0	0.0									
3	0.0	0.0									
3A	0.0	0.0									
4	0.0	0.0									
4A	0.0	0.0									
5	0.0	0.0									
E1	0.0	0.0									
1											
See App	lication	Map for	location of	f buffers		Totals	0.0	0.0	0.0	0.0	0.0

Total 590-633 application acres: 372.0

Total 590-633 Field Acres:

372.0

### **Waste Utilization and Nutrient Management Data Entries**

**General Data** 

Date: 4/16/2025
Farmer Name: Hillside Dairy

County in which the Land is located : Erath

Type of Waste Plan: Other AFO-CAFO Waste Plan

Is this plan in a TMDL watershed for nutrients?

Yes or No: Yes

Is any field PERMITTED by TCEQ?

Yes or No: Yes

Permit #: WQ0003160000

### All other entries on General Page appear on the Cover Page

**Animal Information** 

Plan Year: 2025

Are you receiving waste from another producer? No

Number of animals: 4500
Approximate Weight: 1400
Days per year in confinement: 365

Hours per day confined: 24

ACRE FEET of effluent to be irrigated\*: 77.85

Estimated annual gallons of effluent to be

irrigated/applied annually: 25367266.8

For effluent, do you want application rates shown

in gallons or acre inches?: acre inches

**Estimated Tons Solids to be Land Applied** 

Annually (on or off site)\*: 15604

Is this the first Year of the AFO-CAFO Operation?

No

### **Analysis Information**

**Effluent Information** 

Date of Analysis: 6/14/2024
Manure Source: Dairy Lagoon
Nitrogen % From Analysis: 0.0138
Phosphorus % From Analysis: 0.002
Potassium % From Analysis: 0.022
Moisture % From Analysis: 99.8

### Manure / Solids Information

Date of Analysis: 6/14/2024

Manure Source: Other Solids Explain Other: 6 From Analysis: 2.736 Slurry

Nitrogen % From Analysis: 2.736
Phosphorus % From Analysis: 0.544
Potassium % From Analysis: 2.064

Moisture % From Analysis: 87.5

What will be Applied to Fields on this Farm? Both Effluent and Solids

Is this Farm part of an AFO-CAFO?

This plan is based on: rganic Nutrient Management Plan
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### Field and Buffer Entries

Permit #: WQ0003160000

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FS = 393-Filter Strip, FB = 386-Field Border, RFB = 391-Riparian Forest Buffer, OLEA = Other Land Exclusion Areas or non-application areas (i.e. headquarters, freq. flooded areas, wooded areas, water bodies, etc)

NOTE: Field Border (FB) is expressed in ACRES on this spreadsheet, but as LINEAR FEET on the CPO.

Field No.	Total LMU or Field Acres	FS	FB	RFB	OLEA	Total Buffer Acres	Actual Application Acres	This Column Intentionally Left Blank
1	50					0.0	50.0	
2	39					0.0	39.0	
3	47					0.0	47.0	
3A	65					0.0	65.0	
4	48					0.0	48.0	
4A	42					0.0	42.0	
5	21					0.0	21.0	
E1	60					0.0	60.0	
							-	
							-	
						-		
	-							
	-							

# Soil Test, Crop Information and Plant Analysis Data Entries

0000	Plant Analysis & Yield (optional) Use Only When Crop Removal is Required	Yield Air Dry Production	(IDS/ac/yr)																	
WQ0003160000	Yield (opti Removal is	3	<b>∠</b> %																	
V	nalysis & nen Crop I	i S	7 %																	
Permit #:	Plant A	3	Z ,°																	
	S	lant Analys ( / N )	() d	Z	z	z	z	Z	z	Z										
		= Effluent = Solids	S E	u u	ш	ဟ	ш	S	Ш	S										
Plan is based on: 590 Organic Nutrient Management Plan V 5.0		Crop/Land-Use and P Index Runoff Potential	VL-L; M; H; or VH	Control User 4 cut, 50 into graze in	Coastal Hay 4 cut. SG mod graze M	Coastal Hay 3 cut, SG mod graze M	Coastal Hay 4 cut, SG mod graze M	Coastal Hay 3 cut, SG mod graze M	Coastal Hay 3 cut, SG mod graze M	Coastal Hay 4 cut, SG mod graze M										
590 Organ		Appl. Area	Acres		47.0	65.0	48.0	42.0	21.0	0.09										
based on:		LMU or	Field #	- (	4 m	3A	4	4A	5	E1										
Plan is		This column only for Dry	Poultry																	
2:07 PM		Lime (enter amt or leave	plank)																	
4/16/25 1:	Analysis	<b>x</b> .	(ppm)	1545	295	430	842	349	350	397										
Printed on: 4/16/25 12:07 PM	Soil Test Analysis	Δ.	(mdd)	284	109	235	336	187	152	212										
L		z	(mdd)	20 50	30.5	53.72	16.527	36.754	36.866	29.394										

### **Solids Application Rate Entries**

Soli	ds -	Set the Planned Application Rates				Permit #:	WQ
124	832	"Wet tons" of solids produced Annually		V	Vill the plann	ned rates us	se all of the
					Tons to be	used off-s	ite at plann
LMU or Field No.	Acres	Crop Management and P1 runoff potential	Current Soil Test P ppm	Crop P <sub>2</sub> O <sub>5</sub> Req.	Annual or Biennial Application Cycle	Maximum Solids Allowable Tons/Ac	Enter % of Maximum Planned to Apply
1 2 3							
3A 4	65.0	Coastal Hay 3 cut, SG mod graze M	235	230	Annual	30.9	100.0
4A 5	42.0	Coastal Hay 3 cut, SG mod graze M	187	230	Annual	84.1	100.0
E1	60.0	Coastal Hay 4 cut, SG mod graze M	212	175	Annual	34.6	100.0

Printed on: 4/16/25 12:07 PM Plan is based on: 590 Organi

### **Effluent Application Rate Entries**

**Effluent - Set the Planned Application Rates** 

Permit #: VVQ0003160000	Permit #;	WQ0003160000
-------------------------	-----------	--------------

	- Set the Planned Application Rate	1	- 1		Permit #:		VVQUUU3160	
2536726	7 Gallons of Effluent to be used annually 4 Acre inches of Effluent to be used annually	-		Will the p	lanned rate	s use all of	the effluent?	Yes
LMU or Field No. Acre		Current Soil Test P (ppm)		Annual or Biennial Application Cycle	Max Effluent Allowable (ac in/ac)	Enter % of Maximum Planned to Apply	Planned Effluent (ac in/ac)	Planned Effluent per field (acre inches)
1 50.0		270	175	Annual	10.4	33.0	3.42	171
2 39.0	1	384	175	Annual	10.4	33.0	3.42	133
3 47.0	1	109	175	Annual	22.4	33.0	7.39	347
3A 47.0	Coastai fray 4 cut, 5G mou graze M	107	175	Annual	22.4	33.0	7.57	34,
4 48.0	Coastal Hay 4 cut, SG mod graze M	336	175	Annual	10.4	32.0	3.33	160
	Coastal fray 4 cut, SG mod graze M	330	1/3	Ailliuai	10.4	32.0	3.33	100
4A 21.0	Constal Hay 2 and SC and around M	152	230	Annual	18.4	32.0	5.89	124
5 21.0 E1	Coastal Hay 3 cut, SG mod graze M	152	230	Annuai	10,4	32.0	2:07	124
						Total Ef	fluent This Page	935

Printed on: 4/16/25 12:08 PM

Plan is based on: 590 Organic Nutrient Management Plan '

## **Available Water Capacity Entries**

WQ0003160000	Avoilable	Water Water Holding Capacity	(AWC) of	24 inches	of the soil	profile	1.76	1.91	0.75	101	1.87	1.91										
/Q0003		0		AWC of	Fourth	Layer	0	0		•	>	0										
>		0		A	<u>F</u>	La	0	0			>	0										
Permit #:		24		Depth of	Fourth	Layer	(IIICIIES)	40			47	40										
		8		Dep	쥰	, La	7	14	24	;	4	14										
Plan is based on: 590 Organic Nutrient Management Pla		0.12		AWC of	Third	Layer	0	0.07	0	100	0.0	0.07										
Manager	)	0.08	only	A	ᄩ	La La		0.04	0	100	0.04	0.04										
utrient	IES	8	24" c	Depth of	Third	Layer	(Inches)	14	24	,	14	14										
ganic N	ENTR	4	he top	Dep	Ę	, La	12	12	20	Ş	2	12										
590 Organi	EXAMPLE ENTRIES	0.21	Enter Data for the top 24"	AWC of	Second	Layer	8 0.18	0.18	0	9 40	0.18	0.18										
sed on:	EX	0.16	ter Da	A	Sec	La	0.08	0.08	0	000	0.08	0.08										
is bas		4	En	Depth of	Second	Layer	(menes)	12	20	Ş	71	12										
Plan is		ო		Dep	Sec	, E	œ	∞	2		×	∞										
		0.2		Cof	First	Layer	1 0.2	0.2	0.16		7.0	0.2										
MA 8		0.12		AWC of	证	La :	0.11	0.12	0.14	****	0.11	0.12										
25 12:0		ო		Depth of	First	Layer	(mcnes)	∞	2		×	000										
4/16/2		0		Dep	iΞ	, La			0		5	0										
Printed on: 4/16/25 12:08 PM		Texture of the soil layer within	the upper 24	soil profile that	has the lowest	permeability	ves Dugont Malote	Purves Clay	latorre Gravelly C		ves Dugout Maiote	Purves Clay										
29				LMU or	Fields	receiving	TillueIII	7	3	,	4	2										

### SOIL MONITORING REPORT FOR CAFO INDIVIDUAL PERMITS IN THE SOLE SOURCE IMPAIRMENT ZONES

### A. Sample collection

1) Samples were collected for the land	d management unit (LMU) identified below.
Yes, complete this form and Tables to this soil monitoring repo	s 1 and 2 below. <b>Attach a copy of the laboratory analyses</b> ort form.
No, provide the facility information	n for the LMU below with the exception of the tables.
2) Reporting Year: 2024	Sample Collection Date: 9/19/2024

### **B.** Facility Information

1) Permit Number: WQ0003160000

2) Site Name: Hillside Dairy

3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 1

4) Name of Owner/Operator: Hillside Dairy, LLC

5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm			
Phosphorus (extractable), ppm			
Potassium (extractable), ppm			
Sodium (extractable), ppm			
Magnesium (extractable), ppm			
Calcium (extractable), ppm			
Electrical Conductivity/Soluble Salts, dS/m			
pH, SU			

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	54.777	33.591
Phosphorus (extractable), ppm	270	27.6
Potassium (extractable), ppm	1825	983
Sodium (extractable), ppm	197	325
Magnesium (extractable), ppm	990	668
Calcium (extractable), ppm	8489	13204
Electrical Conductivity/Soluble Salts, dS/m	0.63	0.582
pH, SU	7.96	8.09

Note: ppm = parts per million, considered to be equivalent to milligrams per liter (mg/l); dS/m = decisiemins per meter, equivalent to millimhols per centimeter (mmhols/cm); SU = standard units.

### C. 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 information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

Signature: Jul Mulli > for

Date: 4/7/25

Telephone Number: (254) 968-7101

### D. How to Submit

The soil monitoring report with attached soil analyses should be included in the Annual Report that is required to be submitted by March 31 of each year. For State Only CAFOs, submit this soil monitoring report form to the TCEQ, Enforcement Division (MC-224), P.O. Box 13087, Austin, Texas 78711-3087 and provide a copy to the TCEQ Regional Office.

If you have any additional questions about this form or soil sample collection and soil analyses requirements, contact:

By e-mail: CAFO@tceq.texas.gov or call (512) -239-4671

### SOIL MONITORING REPORT FOR CAFO INDIVIDUAL PERMITS IN THE SOLE SOURCE IMPAIRMENT ZONES

### A. Sample collection

- 1) Samples were collected for the land management unit (LMU) identified below.

  Wes complete this form and Tables 1 and 2 below. Attach a conv. of the laboratory on
- Yes, complete this form and Tables 1 and 2 below. Attach a copy of the laboratory analyses to this soil monitoring report form.
- No, provide the facility information for the LMU below with the exception of the tables.
- 2) Reporting Year: 2024

Sample Collection Date: 9/19/2024

### **B.** Facility Information

- 1) Permit Number: WQ0003160000
- 2) Site Name: Hillside Dairy
- 3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 2
- 4) Name of Owner/Operator: Hillside Dairy, LLC
- 5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm			
Phosphorus (extractable), ppm			
Potassium (extractable), ppm			
Sodium (extractable), ppm			
Magnesium (extractable), ppm			
Calcium (extractable), ppm			
Electrical Conductivity/Soluble Salts, dS/m			
pH, SU			

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	38.598	28.756
Phosphorus (extractable), ppm	384	7.14
Potassium (extractable), ppm	1545	636
Sodium (extractable), ppm	263	316
Magnesium (extractable), ppm	832	510
Calcium (extractable), ppm	8351	28098
Electrical Conductivity/Soluble Salts, dS/m	0.606	0.631
pH, SU	8.16	8.15

Note: ppm = parts per million, considered to be equivalent to milligrams per liter (mg/l); dS/m = decisiemins per meter, equivalent to millimhols per centimeter (mmhols/cm); SU = standard units.

### C. 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 information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

Signature: July Mulli from

Date: 4/5/25

Telephone Number: (254) 968-7101

### D. How to Submit

The soil monitoring report with attached soil analyses should be included in the Annual Report that is required to be submitted by March 31 of each year. For State Only CAFOs, submit this soil monitoring report form to the TCEQ, Enforcement Division (MC-224), P.O. Box 13087, Austin, Texas 78711-3087 and provide a copy to the TCEQ Regional Office.

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By e-mail: CAFO@tceq.texas.gov or call (512) -239-4671

### SOIL MONITORING REPORT FOR CAFO INDIVIDUAL PERMITS IN THE SOLE SOURCE IMPAIRMENT ZONES

### A. Sample collection

- Samples were collected for the land management unit (LMU) identified below.
   Yes, complete this form and Tables 1 and 2 below. Attach a copy of the laboratory analyses to this soil monitoring report form.
- No, provide the facility information for the LMU below with the exception of the tables.
- 2) Reporting Year: 2024

Sample Collection Date: 9/19/2024

### **B.** Facility Information

- 1) Permit Number: WQ0003160000
- 2) Site Name: Hillside Dairy
- 3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 3
- 4) Name of Owner/Operator: Hillside Dairy, LLC
- 5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm		· · · · · · · · · · · · · · · · · · ·	
Phosphorus (extractable), ppm			
Potassium (extractable), ppm			
Sodium (extractable), ppm			
Magnesium (extractable), ppm			
Calcium (extractable), ppm			
Electrical Conductivity/Soluble Salts, dS/m			
pH, SU		1	

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	30.555	17.303
Phosphorus (extractable), ppm	109	13.5
Potassium (extractable), ppm	295	149
Sodium (extractable), ppm	53.2	63.6
Magnesium (extractable), ppm	256	155
Calcium (extractable), ppm	11087	22549
Electrical Conductivity/Soluble Salts, dS/m	0.398	0.414
pH, SU	7.56	7.8

Note: ppm = parts per million, considered to be equivalent to milligrams per liter (mg/l); dS/m = decisiemins per meter, equivalent to millimhols per centimeter (mmhols/cm); SU = standard units.

### C. 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 information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

Signature: July Mulli - fr-

Date: 4/7/25

Telephone Number: (254) 968-7101

### D. How to Submit

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### SOIL MONITORING REPORT FOR CAFO INDIVIDUAL PERMITS IN THE SOLE SOURCE IMPAIRMENT ZONES

### A. Sample collection

1)	Samples were collected for the land	management unit (LMU) identified below.
<b>√</b>	Yes, complete this form and Tables to this soil monitoring repo	1 and 2 below. <b>Attach a copy of the laboratory analyse</b>
_	_	
	No, provide the facility information	for the LMU below with the exception of the tables.
2)	Reporting Year: 2024	Sample Collection Date: 9/30/2024

### **B.** Facility Information

1) Permit Number: WQ0003160000

2) Site Name: Hillside Dairy

3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 3A

4) Name of Owner/Operator: Hillside Dairy, LLC

5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm		•	
Phosphorus (extractable), ppm			
Potassium (extractable), ppm			
Sodium (extractable), ppm			
Magnesium (extractable), ppm			
Calcium (extractable), ppm			
Electrical Conductivity/Soluble Salts, dS/m			
pH, SU			

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	53.72	39.639
Phosphorus (extractable), ppm	235	31.9
Potassium (extractable), ppm	430	241
Sodium (extractable), ppm	39.0	90.2
Magnesium (extractable), ppm	393	372
Calcium (extractable), ppm	393	372
Electrical Conductivity/Soluble Salts, dS/m	0.537	0.512
pH, SU	7.36	7.79

Note: ppm = parts per million, considered to be equivalent to milligrams per liter (mg/l); dS/m = decisiemins per meter, equivalent to millimhols per centimeter (mmhols/cm); SU = standard units.

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 information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

Telephone Number: (254) 968-7101

### D. How to Submit

The soil monitoring report with attached soil analyses should be included in the Annual Report that is required to be submitted by March 31 of each year. For State Only CAFOs, submit this soil monitoring report form to the TCEQ, Enforcement Division (MC-224), P.O. Box 13087, Austin, Texas 78711-3087 and provide a copy to the TCEO Regional Office.

If you have any additional questions about this form or soil sample collection and soil analyses requirements, contact:

### A. Sample collection

- 1) Samples were collected for the land management unit (LMU) identified below.

  Yes, complete this form and Tables 1 and 2 below. Attach a copy of the laboratory analyses
- to this soil monitoring report form.

  No, provide the facility information for the LMU below with the exception of the tables.
- 2) Reporting Year: 2024 Sample Collection Date: 9/19/2024

### **B.** Facility Information

- 1) Permit Number: WQ0003160000
- 2) Site Name: Hillside Dairy
- 3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 4
- 4) Name of Owner/Operator: Hillside Dairy, LLC
- 5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm			
Phosphorus (extractable), ppm			
Potassium (extractable), ppm			
Sodium (extractable), ppm			
Magnesium (extractable), ppm			
Calcium (extractable), ppm			
Electrical Conductivity/Soluble Salts, dS/m			
pH, SU			

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	16.527	6.93
Phosphorus (extractable), ppm	336	26.7
Potassium (extractable), ppm	842	422
Sodium (extractable), ppm	154	266
Magnesium (extractable), ppm	612	461
Calcium (extractable), ppm	7316	15903
Electrical Conductivity/Soluble Salts, dS/m	0.434	0.651
pH, SU	7.96	7.93

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 information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

Signature: The Mulli fr

Date: 9/7/25

Telephone Number: (254) 968-7101

### D. How to Submit

The soil monitoring report with attached soil analyses should be included in the Annual Report that is required to be submitted by March 31 of each year. For State Only CAFOs, submit this soil monitoring report form to the TCEQ, Enforcement Division (MC-224), P.O. Box 13087, Austin, Texas 78711-3087 and provide a copy to the TCEQ Regional Office.

If you have any additional questions about this form or soil sample collection and soil analyses requirements, contact:

### A. Sample collection

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- Yes, complete this form and Tables 1 and 2 below. Attach a copy of the laboratory analyses to this soil monitoring report form.
- No, provide the facility information for the LMU below with the exception of the tables.
- 2) Reporting Year: 2024 Sample Collection Date: 9/19/2024

### **B.** Facility Information

- 1) Permit Number: WQ0003160000
- 2) Site Name: Hillside Dairy
- 3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 4A
- 4) Name of Owner/Operator: Hillside Dairy, LLC
- 5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm			
Phosphorus (extractable), ppm			
Potassium (extractable), ppm			
Sodium (extractable), ppm			
Magnesium (extractable), ppm			
Calcium (extractable), ppm			
Electrical Conductivity/Soluble Salts, dS/m			
pH, SU			

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	36.754	39.301
Phosphorus (extractable), ppm	187	15.9
Potassium (extractable), ppm	349	155
Sodium (extractable), ppm	118	201
Magnesium (extractable), ppm	415	284
Calcium (extractable), ppm	8039	15971
Electrical Conductivity/Soluble Salts, dS/m	0.569	0.99
pH, SU	7.58	7.74

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 information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

Telephone Number: (254) 968-7101

### D. How to Submit

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If you have any additional questions about this form or soil sample collection and soil analyses requirements, contact:

### A. Sample collection

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- Yes, complete this form and Tables 1 and 2 below. Attach a copy of the laboratory analyses to this soil monitoring report form.
- No, provide the facility information for the LMU below with the exception of the tables.
- 2) Reporting Year: 2024 Sample Collection Date: 9/19/2024

### **B.** Facility Information

- 1) Permit Number: WQ0003160000
- 2) Site Name: Hillside Dairy
- 3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 5
- 4) Name of Owner/Operator: Hillside Dairy, LLC
- 5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm		•	
Phosphorus (extractable), ppm			
Potassium (extractable), ppm			
Sodium (extractable), ppm			
Magnesium (extractable), ppm			
Calcium (extractable), ppm			
Electrical Conductivity/Soluble Salts, dS/m			
pH, SU			

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	36.866	18.692
Phosphorus (extractable), ppm	152	7.10
Potassium (extractable), ppm	350	166
Sodium (extractable), ppm	31.6	73.1
Magnesium (extractable), ppm	355	217
Calcium (extractable), ppm	8721	19384
Electrical Conductivity/Soluble Salts, dS/m	0.386	0.308
pH, SU	7.49	7.85

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 information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

Signature: Jul Mulli fr-

Date: 4/7/25

Telephone Number: (254) 968-7101

### D. How to Submit

The soil monitoring report with attached soil analyses should be included in the Annual Report that is required to be submitted by March 31 of each year. For State Only CAFOs, submit this soil monitoring report form to the TCEQ, Enforcement Division (MC-224), P.O. Box 13087, Austin, Texas 78711-3087 and provide a copy to the TCEQ Regional Office.

If you have any additional questions about this form or soil sample collection and soil analyses requirements, contact:

### A. Sample collection

- 1) Samples were collected for the land management unit (LMU) identified below.
- Yes, complete this form and Tables 1 and 2 below. Attach a copy of the laboratory analyses to this soil monitoring report form.
- No, provide the facility information for the LMU below with the exception of the tables.
- 2) Reporting Year: 2024

Sample Collection Date: 9/19/2024

### **B.** Facility Information

- 1) Permit Number: WQ0003160000
- 2) Site Name: Hillside Dairy
- 3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 5A
- 4) Name of Owner/Operator: Hillside Dairy, LLC
- 5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	•		
Phosphorus (extractable), ppm			
Potassium (extractable), ppm			
Sodium (extractable), ppm			
Magnesium (extractable), ppm			
Calcium (extractable), ppm			
Electrical Conductivity/Soluble Salts, dS/m			
pH, SU			

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	47.381	50.059
Phosphorus (extractable), ppm	226	12.8
Potassium (extractable), ppm	321	148
Sodium (extractable), ppm	34.5	87.0
Magnesium (extractable), ppm	388	289
Calcium (extractable), ppm	7907	23878
Electrical Conductivity/Soluble Salts, dS/m	0.186	0.512
pH, SU	7.38	7.75

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### A. Sample collection

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- Yes, complete this form and Tables 1 and 2 below. Attach a copy of the laboratory analyses to this soil monitoring report form.
- No, provide the facility information for the LMU below with the exception of the tables.
- 2) Reporting Year: 2024

Sample Collection Date: 9/19/2024

### **B.** Facility Information

- 1) Permit Number: WQ0003160000
- 2) Site Name: Hillside Dairy
- 3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 6
- 4) Name of Owner/Operator: Hillside Dairy, LLC
- 5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	37.826	16.067	11.324
Phosphorus (extractable), ppm	73.1	70.0	1.56
Potassium (extractable), ppm	403	264	117
Sodium (extractable), ppm	23.1	25.0	32.2
Magnesium (extractable), ppm	313	281	203
Calcium (extractable), ppm	11636	13299	33303
Electrical Conductivity/Soluble Salts, dS/m	0.323	0.224	0.386
pH, SU	7.32	7.66	7.82

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm		
Phosphorus (extractable), ppm		
Potassium (extractable), ppm		
Sodium (extractable), ppm		
Magnesium (extractable), ppm		
Calcium (extractable), ppm		
Electrical Conductivity/Soluble Salts, dS/m		
pH, SU		

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 information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

Signature: Only Mulli fr ->

Date: 4/7/25

Telephone Number: (254) 968-7101

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If you have any additional questions about this form or soil sample collection and soil analyses requirements, contact:

### A. Sample collection

1)	Samples were collected for the land mana	agement unit (LMU) identified below.
✓	Yes, complete this form and Tables 1 and to this soil monitoring report for	2 below. <b>Attach a copy of the laboratory analyses</b> rm.
	No, provide the facility information for th	ne LMU below with the exception of the tables.
	Reporting Year: 2024	Sample Collection Date: 9/30/2024

### **B.** Facility Information

1) Permit Number: WQ0003160000

2) Site Name: Hillside Dairy

3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): 8A

4) Name of Owner/Operator: Hillside Dairy, LLC

5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm			
Phosphorus (extractable), ppm			
Potassium (extractable), ppm			
Sodium (extractable), ppm			
Magnesium (extractable), ppm			
Calcium (extractable), ppm			
Electrical Conductivity/Soluble Salts, dS/m		8	
pH, SU			

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	8.794	3.68
Phosphorus (extractable), ppm	62.6	5.41
Potassium (extractable), ppm	190	146
Sodium (extractable), ppm	9.51	35.6
Magnesium (extractable), ppm	192	186
Calcium (extractable), ppm	9871	24319
Electrical Conductivity/Soluble Salts, dS/m	0.223	0.279
pH, SU	7.66	7.9

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Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

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### A. Sample collection

- 1) Samples were collected for the land management unit (LMU) identified below.
- Yes, complete this form and Tables 1 and 2 below. Attach a copy of the laboratory analyses to this soil monitoring report form.
- No, provide the facility information for the LMU below with the exception of the tables.
- 2) Reporting Year: 2024 Sample Collection Date: 9/30/2024

### **B.** Facility Information

- 1) Permit Number: WQ0003160000
- 2) Site Name: Hillside Dairy
- 3) Name of LMU (LMU Name should correspond to field designation located on the Map included in the PPP): E1
- 4) Name of Owner/Operator: Hillside Dairy, LLC
- 5) Mailing Address for Owner/Operator: 1865 Private Road 1233, Hico, TX 76457

Table 1. Soil Analysis Report Where Manure, Sludge and Wastewater are not Incorporated

Soil Sample Parameter	0-2 inches soil depth	2-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	29.394	10.046	4.009
Phosphorus (extractable), ppm	212	25.1	6.56
Potassium (extractable), ppm	397	333	155
Sodium (extractable), ppm	50.7	94.8	86.2
Magnesium (extractable), ppm	440	283	154
Calcium (extractable), ppm	8216	10224	14519
Electrical Conductivity/Soluble Salts, dS/m	0.309	0.325	0.421
pH, SU	7.54	7.74	7.86

Table 2. Soil Analysis Report Where Manure, Sludge and Wastewater are Incorporated

Soil Sample Parameter	o-6 inches soil depth	6-24 inches soil depth
Nitrate-Nitrogen (NO <sub>3</sub> -N), ppm	•	1
Phosphorus (extractable), ppm		
Potassium (extractable), ppm		
Sodium (extractable), ppm		
Magnesium (extractable), ppm		
Calcium (extractable), ppm		
Electrical Conductivity/Soluble Salts, dS/m		
pH, SU		

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Print Name and Title of Responsible Official or Authorized Agent: Clemens Kuiper / Owner

Signature: Jul Mulli fr->

Date: 4/1/25

Telephone Number: (254) 968-7101

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If you have any additional questions about this form or soil sample collection and soil analyses requirements, contact:

TEXAS COMMISSION ON ENVIRONMENTAL		5.98	Hilside DayChain		Cus	of Custody Record	Rec	ord		55741	<del></del>
Location:		(Do not fill	(Do not fill in this shaded area		acility info	if the facility information must be confidential)	ing confid	ontial)		Permit #: 12 P	
Region:	Organization	-14-	PCA Code		Program:	am:		Sampler telephone number:	mber:		
E-Mail ID:		Sampler	Sampler: (signature)	Mank	3			Sampler: (please print openty)	it openity)	100	
Lab ID Number	Sample ID	Date	Time	# of Grab/ Bottles Comp.	Matrix 5. L,S,M,O.T	CL2 pH	Cond	Analyses Requested	uested	REMARKS	KS.
14/22	-01	h-16-14	13:10					SER RE	T.	T#MU7	0.5
82141	-02		13:10	***************************************						CRIENT.	7.30
14124	-03		54:21							で井かりて	2.0
14125	-04	1170-31	91:21		-3240n= II					OH IW!	he-y
MUR	-05		11:20							18/8/	7-0
14127	-06	_	11:20							CHE ST	2-3
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14129	-08	Y3924	1100	-						J.C. H.W. I	ME-4
M130	60-	9-4-24	13:30			-11-21-				か井のひて	0-6
	-10	9-19-24		\	7					LMUHY	he-9
1	hoteliald	Date 10-8-24	Time	Received by	1	104.	1.24	For Laboratory Use:			
Kelinquished by:	<b>&gt;</b>	Date	Time	Received	_			Received on ice:	>-	Z	dea. C
Relinquished by:		Date	Time	Received by:				Preservatives:	>	z	
Relinquished by:		Date	Тіте	Received by:				COC Seal:	>	Z	
Shipper name:		Shipper Number	7779,	b. 918	00	1852		Seals Intact:	>-	Z	
TCEQ-10065 (11/02)		White (Original)	iginal) -Lab		Yellow-Lab	C	luid.	Pink-Contract Lab Manager		Soldenrod-Collector Copy	VGC

Report for Samples analyzed Under Contract Number: 582-10-99518

11-Nov-24 Print Date:

055741a-45607

Report ID:

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory

108 Soil Testing Laboratory, 2478 TAMU

College Station, TX 77843-2478

979-862-4955

Hillside Dairy Client Name:

not provided Client address: TCEQ COC# 055741 Standard Sample Report

Laboratory ID:	TCEQ/client	Sample	Sample Coll.	Collector	TCEQ	Date	Sample	Sample opened	Sample Ground	Process
	Sample ID:	Depth (inches)	Date:	Name:	Region #	Received	Type:	Date	Date	Tech.
14122	55741-01	9-0	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	J.T.
14123	55741-02	6-24	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP
14124	55741-03	9-0	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP
14125	55741-04	6-24	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP
14126	55741-05	9-0	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP
14127	55741-06	6-24	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP
14128	55741-07	9-0	9/30/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP
14129	55741-08	6-24	9/30/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP
14130	55741-09	9-0	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP
14131	55741-10	6-24	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP Soil pH 2:1 DI water:soil Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP Soil Conductivity 2:1 DI Water:Soil

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI. NO3-N EXTRACTION - SWFTL0014R5.S0P/NO3-N ANALYSIS - SWFTL0089R1.S0P

Soil P. K. Ca, Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Meblich-3 soil test extractant: a modification of Mehlich-2 extractant Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Report ID: 055741a-45607 Print Date: 11-Nov-24 Standard Sample Benort

	Mehlich III	Na units	maa	L L L		. Loo	 Waa	maa maa	Waa	maa	mad	
	Mehlich III	Na conc.	197	325	263	316	53.2	53.6	39.0	90.2	154	266
	Mehlich III	Sunits	ľ								mdd	
	Mehlich III	S conc.	105	129	95.8	240	112	188	73.9	148	81.5	158
	Mehlich III	Mg units	mdd								E dd	
	Mehlich III	Mg conc.	066	999	832	510	256	155	393	372	612	461
	Mehlich III	Ca units		_							) wdd	
	Mehlich III	Ca conc.	8489	13204	8351	28098	11087	22549	6587	16191	7316	15903
	Mehlich III	K units	mdd								mdd	
055741	Mehlich III	K conc.	1825	983	1545	636	295	149	430	241	842	422
CEQ COC# 055741	Mehlich III	P units	mdd	mdd	mdd		mdd			mdd		, wdd
)   	Mehlich III	P conc.	270	27.6	384	7.14	109	13.5	235	31.9	336	26.7
ole Report	TCEQ/client	Sample ID:	55741-01	55741-02	55741-03	55741-04	55741-05	55741-06	55741-07	55741-08	55741-09	55741-10
Standard Sample Report	Laboratory ID:		14122	14123	14124	14125	14126	14127	14128	14129	14130	14131

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III	Mehlich III	Mehlich III N	Mehlich III					
	P conc.	P units	P units K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0219	mdd	1.8799	mdd	2.9331	mdd	0.4222	mdd	0.0100	mdd	0.7463	mad
Reporting Limit	_	шфф	_	mdd	_	mdd	_	mdd	~	mdd	_	mdd.

Mehlich III	Anal. Tech	JLP									
Mehlich III	Anal.Date	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
Mehlich III	Extract Date Extract Tech	FMR									
Mehlich III	Extract Date	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
TCEQ/client	Sample ID:	55741-01	55741-02	55741-03	55741-04	55741-05	55741-06	55741-07	55741-08	55741-09	55741-10
Laboratory ID:		14122	14123	14124	14125	14126	14127	14128	14129	14130	14131

		Í		ı									
		Nitrate-N	units	mdd	udd	mdd	mdd						
		Nitrate-N		54.777	33.591	38.598	28.756	30.555	17.303	53.72	39.639	16.527	6.93
		Conductivity	units	M/Sp	M/Sb	M/Sp	M/Sp	M/Sp	M/Sp	M/Sp	M/Sb	M/Sp	M/Sp
11-Nov-24	55741	Conductivity		0.63	0.582	909.0	0.631	0.398	0.414	0.537	0.512	0.434	0.651
Print Date:	TCEQ COC# 055741	) Hd	units	AN	ΑN	N A	ΑN	ΑN	NA	NA	NA	NA	AN
307		ЬH		7.96	8.09	8.16	8.15	7.56	7.8	7.36	7.79	7.96	7.93
Report ID: 055741a-45607	nple Report	TCEQ/client	Sample ID:	55741-01	55741-02	55741-03	55741-04	55741-05	55741-06	55741-07	55741-08	55741-09	55741-10
Report ID:	Standard Sample Report	Laboratory ID:		14122	14123	14124	14125	14126	14127	14128	14129	14130	14131

Laboratory ID:	H.	ЪН	Conductivity	Conductivity Conductivity	Nitrate-N	Nitrate-N
		units		nnits		units
Detection Limit	0.01	па	0.001	M/Sp	0.01	mdd
Reporting Limit	0.1	na	0.001	dS/M	Ñ	mdd

aboratory ID:	TCEQ/client	pH/Conductivity prep	ity prep	pH Analysis	/sis	Conductivity	ivity	Nitate-N Extract	Extract	Nitrate-N Analysis	nalysis
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
14122	55741-01	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	MS
14123	55741-02	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Mς
14124	55741-03	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Mς
14125	55741-04	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Mς
14126	55741-05	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Mς
14127	55741-06	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Wſ
14128	55741-07	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	M.
14129	55741-08	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	MΥ
14130	55741-09	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	MΥ
14131	55741-10	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	M

Report ID: 055741a-45607 Print Date: 11-Nov-24 Quality Control Report TCEQ COC# 055741

Laboratory ID:		Mehlich III	Mehlich III Mehlich III Mehlich II	Mehlich III									
		P conc.	P units	K conc.	K units	Ca conc.		Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
14139	IC1009	43.9	mdd	275	mdd	2276	mdd	315	mdd	35.2	mdd	37.3	mdd
14140	IC1010	41.5	mdd	257	mdd	1934		298	mdd	33.4	mdd	35.3	mdd
	Mean IC	0	mdd	0	mdd	0		0	mdd	0	mdd	0	mdd
	IC Lower	37.5	mdd	235.0	mdd	1576.0	mdd	275.0	mdd	24.5	mdd	28.0	mdd
	IC Upper	45.9	mdd	300.0	mdd	2350.0	mdd	350.0	mdd	39.0	mdd	53.0	mdd
	blk217	0.545	ррт	<1.88	mdd	<2.93	шдд	<0.422	mdd	<0.0100	mdd	<0.100	mdd

Laboratory ID: Mehliv	Mehlich III	I Mehlich III	Mehlich III	Mehlich III	Mehlich III	Mehlich III Mehlich III Mehlich III	Mehlich III	Mehlich III	Mehlich III	Mehlich III Mehlich III Mehlich III Mehlich III	Mehlich III	Mehlich III
P CC	P conc.	P units	К сопс.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit 0.02	0.0219	mdd	1.8799	mdd	2.9331	mdd	0.4222	mdd	0.0100	mdd	0.7463	mdd
Reporting Limit 1	_	bpm	-	mdd	<b>-</b>	mdd	-	mdd	1	mdd	7	mdd

 ≡ €	Tech	ا	Δ.	۵
Mehlic	Anal.	JLP	JLP	JLP
Mehlich III	Anal.Date	10/24/2024	10/24/2024	10/24/2024
Mehlich III	Extract Date Extract Tech Anal.Date Anal. Tech	FMR	FMR	FMR
Mehlich III	Extract Date	10/24/2024	10/24/2024	10/24/2024
Laboratory ID: Mehlich III Mehlich III Mehlich III		IC1009	IC1010	blk217

Report ID: 055741a-45607 Print Date: 11-Nov-24

# Quality Control Report

# TCEQ COC# 055741

Laboratory ID:		Hd	Hd	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			nuits	COUC.	units	conc.	units	% recovery
14139	IC1009	5.8	na	0.254	M/Sp	5.945	mdd	
14140	IC1010	5.8	na	0.257	M/Sp	5.345	mdd	
	Mean IC	5.825	na	0.2555	M/Sp	5.645	mdd	
14140spike	Spiked sample	Û,	•	<u>r</u> n	500	4.9	mdd	77.9
	IC lower	5.760	na	0.229	M/Sp	4.7	mdd	
	IC Upper	5.990	па	0.299	M/Sp	7.1	mdd	
	blk217		na	0	dS/M	0.636	mdd	

Laboratory ID:	చ	핍	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	M/Sp	0.01	mdd
Reporting Limit	0.1	na	0.001	dS/M	_	mdd

Laboratory ID:	pH/Conductivity prep	vity prep	pH Analysis	ysis	Conductivity	ivity	Nitate-N Extract	Extract	Nitrate-N Analysis	nalysis
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC1009	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	WC
IC1010	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Mς
blk217	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	M

55742	Permit #:		7007	REMARKS	4-0 AV# UMJ	HE-9 HINAN	7-0 S#NW7	LMU#S 6-34	ST.			2	1-0 BA/W7	UMB 63		deg. C	Z	Z	Z	Galdenrad-Callector Copy
ord	lantia!)	Sampler telephone number:	Sampler: (please print clarity)	Analyses Requested	SPP RFA										For Laboratory Use:	Received on ice:	Preservatives: Y	COC Seal: Y	Seals Intact:	anager
Hillside Daily Chain of Custody Record	(Do not fill in this shaded area if the facility information must be confidential)	PCA Code: Program:	Sampler: (signature)	Date Time # of Grab/ Matrix CL2 pH Cond.  Bottles Comp. L,S,M,O,T	9-19-14 13:50	13:50	10:50	05,01	5):01	\$1:01	84:6	87:6			301 Pros	te Time Redejved by:	te Time Received by:	te Time Received by:	Shipper Number 790 9140 7986	
TEXAS COMMISSION ON H1 1/ 5/5/ ENVIRONMENTAL QUALITY	Location: (Do	Region: Organization #:	E-Mail ID:	Lab ID Sample Da	PY132 -01	14133 -02	141384.0g	141385-04	1413 X6-05/	1413416	14138 -07	14141 -08	60-	1-10	Tield	Relinquished by:	Relinquished by:	Relinquished by:		TCEQ-10065 (11/02) W/

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Report for Samples analyzed Under Contract Number: 582-10-99518

055742a-45607 11-Nov-24 Report ID: Print Date:

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory

108 Soil Testing Laboratory, 2478 TAMU

College Station, TX 77843-2478

979-862-4955

Hillside Dairy Client Name:

not provided Client address:

TCEQ COC# 055742 Standard Sample Report

		٦.						
Process	Tech.	TLP	11	TLP	TLP	TLP	TLP	TLP
Sample opened Sample Ground	Date	10/20/2024	10/20/2024	10/20/2024	10/20/2024	10/20/2024	10/20/2024	10/20/2024
Sample opened	Date	10/9/2024	10/9/2024	10/9/2024	10/9/2024	10/9/2024	10/9/2024	10/9/2024
Sample	Type:	soil						
Date	Received	10/9/2024	10/9/2024	10/9/2024	10/9/2024	10/9/2024	10/9/2024	10/9/2024
TCEQ	Region #	4	4	4	4	4	4	4
Collector	Name:	Vanessa Gardner						
Sample Coll.	Date:	9/19/2024	9/19/2024	9/19/2024	9/19/2024	9/19/2024	9/19/2024	9/19/2024
Sample	Depth (inches)	9-0	6-24	9-0	6-24	9-0	6-24	0-2
TCEQ/client	Sample ID:	55742-01	55742-02	55742-03	55742-04	55742-05	55742-06	55742-07
Laboratory ID:		14132	14133	14134	14135	14136	14137	14138

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored. tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive

Analytical Methods:

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP Soil pH 2:1 DI water:soil

Schoffeld, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP Soil Conductivity 2:1 DI Water:Soil

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCI Extractable with Cd-Reduction Analyses

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI. NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP Soil P. K. Ca, Mg. S and Na -- Mehlich III by ICP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Report ID: 055742a-45607 Print Date: 11-Nov-24

TCEQ COC# 055742
Standard Sample Report

l_		ı						
Mehlich II	Na units	mdd	mdd	. dd	mdd.	шаа	. dd	mdd
Mehlich III	Na conc.	118	201	31.6	73.1	34.5	87.0	23.1
Mehlich III	S units	mdd	mdd	шdd	шdd	шdd	mad	mdd
Mehlich III	S conc.	103	192	86.7	165	78.9	205	106
Mehlich III	Mg units	mdd						
Mehlich III	Mg conc.	415	284	355	217	388	289	313
Mehlich III	Ca units							
Mehlich III	Ca conc.	8039	15971	8721	19384	7907	23878	11636
Mehlich III	K units	mdd	mdd	mdd	mdd	mdd	mdd	шdd
Mehlich III	K conc.	349	155	350	166	321	148	403
Mehlich III	P units	mdd	шфф	шdd	mdd	mdd	mdd	mdd
Mehlich III	P conc.	187	15.9	152	7.10	226	12.8	73.1
TCEQ/client	Sample ID:	55742-01	55742-02	55742-03	55742-04	55742-05	55742-06	55742-07
Laboratory ID:		14132	14133	14134	14135	14136	14137	14138
	TCEQ/client Mehlich III	TCEQ/client Mehlich III Mehlic	TCEQ/client Mehlich III Mehlic	TCEQ/client Mehlich III Mehlich II M	TCEQ/client Mehlich III Mehlic	TCEQ/client         Mehlich III         Mencor.         Sunits         Na conc.         Sunits         Na conc.           55742-02         15.9         ppm         1587         ppm         1587         ppm         31.6         ppm         31.6           55742-03         7.10         ppm         166         ppm         19384         ppm         217         ppm         73.1	TCEQ/client Mehlich III Mehlic	TCEQ/client         Mehlich III         Menc.         Sunits         Na conc.         Sunits         Na conc.           55742-03         152         ppm         166         ppm         7307         ppm         789         ppm         73.5         ppm         73.5           55742-06         12.8         ppm

Laboratory ID:	Mehlich III	Mehlich III										
	P conc.	P units	K conc.	K units	Са сопс.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
etection Limit	0.0219	mdd	1.8799	mdd	2.9331	mdd	0.4222	mdd	0.0100	шdd	0.7463	mdd
Reporting Limit	1	mdd	1	bbm	-	mdd	_	mdd	_	mdd	<del>-</del>	mdd

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Mehlich III	Anal. Tech	JLP						
Mehlich III	Anal.Date	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
Mehlich III	Extract Tech Anal.Date	FMR						
Mehlich III	Extract Date	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
TCEQ/client	Sample ID:	55742-01	55742-02	55742-03	55742-04	55742-05	55742-06	55742-07
Laboratory ID:		14132	14133	14134	14135	14136	14137	14138

		Nitrate-N	units	mdd	mdd	mdd	mdd	mdd	mdd	шdd
		Nitrate-N		36.754	39.301	36.866	18.692	47.381	50.059	37.826
		Conductivity	units	M/Sp	dS/M	M/Sb	∘ M/Sb	M/Sb	M/Sb	M/Sp
11-Nov-24	055742	Conductivity		0.569	0.99	0.386	0.308	0.186	0.512	0.323
Print Date:	TCEQ COC# 055742	Hd	nnits	AN	ΑN	NA	NA	NA	NA	Z A
200		Hd		7.58	7.74	7.49	7.85	7.38	7.75	7.32
Report ID: 055742a-45607	tandard Sample Report	TCEQ/dient	Sample ID:	55742-01	55742-02	55742-03	55742-04	55742-05	55742-06	55742-07
Report ID:	Standard Sar	Laboratory ID:		14132	14133	14134	14135	14136	14137	14138

Laboratory ID:	표	핍	Conductivity	Conductivity Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	na	0.001	M/Sp	0.01	mdd
Reporting Limit	0.1	na	0.001	dS/M	1	mdd

nalysis	Tech	Š	Mς	Mς	Mς	Mς	MΥ	λγ
Nitrate-N Analysis	Date	11/5/2024	11/5/2024	11/5/2024	11/5/2024	11/5/2024	11/5/2024	11/5/2024
Extract	Tech	FMR						
Nitate-N Extract	Date	11/4/2024	11/4/2024	11/4/2024	11/4/2024	11/4/2024	11/4/2024	11/4/2024
ivity	Tech	DEC						
Conductivity	Date	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
ysis	Tech	DEC						
pH Analysis	Date	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
uctivity prep	Tech	DEC						
pH/Conducti	Date	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
aboratory ID: TCEQ/client pH/Condu	Sample ID:	55742-01	55742-02	55742-03	55742-04	55742-05	55742-06	55742-07
aboratory ID:		14132	14133	14134	14135	14136	14137	14138

Report ID: 055742a-45607 Print Date: 11-Nov-24 Quality Control Report TCEQ COC# 055742

Mehlich III	Na units	mdd	mdd	mdd	mdd	mdd	mdd
Mehlich III	Na conc.	37.3	35.3	0	28.0	53.0	<0.100
Mehlich III	S units	mdd	шdd	mdd	mdd	шdd	mdd
Mehlich III	S conc.	35.2	33.4	0	24.5	39.0	<0.0100
Mehlich III	Mg conc.	mdd	шdd	mdd	mdd	mdd	mdd
Mehlich III	Mg conc.	315	298	0	275.0	350.0	<0.422
Mehlich III	Ca units	mdd	mdd	mdd	mdd	mdd	mdd
Mehlich III	Са сопс.	2276	1934	0	1576.0	2350.0	<2.93
Mehlich III	K units	mdd	mdd	шdd	mdd	mdd	mdd
Mehlich III	K conc.	275	257	0	235.0	300.0	<1.88
Mehlich III Mehlich III Mehlich I	P units	mdd	mdd	mdd	mdd	mdd	mdd
Mehlich III	Р сопс.	43.9	41.5	0	37.5	45.9	0.545
		IC1009	IC1010	Mean IC	IC Lower	IC Upper	blk217
Laboratory ID:		14139	14140				

l aboratory ID:	Mobilob III	Mobilob III	Mobiles III	MARKET III	A A - L D - L III	14-15-11	11. 1. 2. 1. 1.					
Laboratory ID.			Menico	Menich III	Meniich III	Meniich III	Menich III	Meniich III Meniich III Meniich III Meniich III M	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0219	mdd	1.8799	mdd	2.9331	mdd	0.4222	ı	0.0100	1	0.7463	mad
Reporting Limit	_	mdd	-	mdd	-	mdd	_	mdd	_	mdd	₩-	dd

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Mehlich II	Anal. Tect	JLP	JLP	d II.
Mehlich III	Anal.Date	10/24/2024	10/24/2024	10/24/2024
Mehlich III	Extract Date Extract Tech Anal.Date Anal. Tech	FMR	FMR	FMR
Mehlich III	Extract Date	10/24/2024	10/24/2024	10/24/2024
Laboratory ID: Mehlich III Mehlich III Mehlich III		IC1009	IC1010	blk217

Report ID: 055742a-45607

Print Date: 11-Nov-24

Quality Control Report

TCEQ COC# 055742

Laboratory ID:		Hd	Hd	Conducitity Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	conc.	units	% recovery
14139	IC1009	5.8	na	0.254	dS/M	5.945	mdd	
14140	IC1010	5.8	Б	0.257	dS/M	5.345	mdd	
	Mean IC	5.825	na	0.2555	M/Sb	5.645	mdd	
14140spike	Spiked sample	ŧ	ı	Ā	•	6.4	mdd	77.9
	IC lower	5.760	na	0.229	M/Sp	4.7	mdd	
	IC Upper	5.990	na	0.299	M/Sp	7.1	mdd	
	blk217	×	БП	0	M/Sp	0.636	mdd	

aboratory ID:	핍	핍	Conducitity C	Conducitity	Nitrate-N	Nitrate-N
		nnits	conc.	units	conc.	units
Detection Limit	0.01	Па	0.001	M/Sp	0.01	mdd
Reporting Limit	0.1	na	0.001	dS/M	77	mdd

Analysis	Tech	Νς	Wſ	Wſ
Nitrate-N Analysis	Date	11/5/2024	11/5/2024	11/5/2024
Extract	Tech	FMR	FMR	FMR
Nitate-N Extract	Date	11/4/2024	11/4/2024	11/4/2024
tivity	Tech	DEC	DEC	DEC
Conductivity	Date	10/24/2024	10/24/2024	10/24/2024
lysis	Tech	DEC	DEC	DEC
pH Analysis	Date	10/24/2024	10/24/2024	10/24/2024
vity prep	Tech	DEC	DEC	DEC
pH/Conductivity prep	Date	10/24/2024	10/24/2024	10/24/2024
Laboratory ID:		IC1009	IC1010	blk217

Report for Samples analyzed Under Contract Number: 582-10-99518

Print Date: 11-Nov-24

055742b-45607

Report ID:

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory

108 Soil Testing Laboratory, 2478 TAMU

College Station, TX 77843-2478

979-862-4955

Client Name: Hillside Dairy

Client address: not provided

Standard Sample Report TCEQ COC# 055742

Johoroton ID.	TOEO/oliont	راحستان	Illand of second		CLCH					
Laboratory ID.		Sample	Sample Con.	Collector	CEC	Date	Sample	Sample opened	Sample Ground	Process
	Sample ID:	Depth (inches)	Date:	Name:	Region #	Received	Type:	Date	Date	Tech.
14141	55742-08	6-24	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP

Methods and Sample Preparation:

Receiving of samples Processing - SWFTL0097R0.SOP

drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil Soil Soil Ph AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Report ID: 055742b-45607 Standard Sample Report

	Mehlich III	Na units	mdd
	Mehlich III	S units Na conc. Na units	32.2
	Mehlich III	S units	ррт 32.2
	Mehlich III	Mg units S conc.	258
	Mehlich III		mdd
	Mehlich III	Mg conc.	203
	Mehlich III	Ca units	mdd
	Mehlich III	K units Ca conc. Ca units Mg conc.	33303
	Mehlich III	K units	mdd
Print Date: 11-Nov-24 EQ COC# 055742	Mehlich III	K conc.	117
Print Date: 11-Nov TCEQ COC# 055742	Jehlich III Mehlich III Mehlich III	P units	ppm 117
	Mehlich III	P conc.	1.56
Report ID: 055742b-45607 Idard Sample Report	-aboratory ID: TCEQ/client	Sample ID: P conc. P units K conc.	55742-08 1.56
Report ID: 055742b-4 Standard Sample Report	Laboratory ID:		14141 5

Laboratory ID:	Mehlich III Mehlich III	Mehlich III	Mehlich III	Mehlich III Mehlich III	Mehlich III	Mehlich III						
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0219	mdd	1.8799	mdd	2.9331	mdd	0.4222	mdd	ı	mdd	0.7463	mdd
Reporting Limit	-	mdd	_	mdd	<u>-</u>	mdd	_	mdd	_	mdd	1	mdd

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech /	Anal.Date	Anal. Tech
14141	55742-08	10/24/2024	FMR	10/24/2024	JLP

Report ID: 055742b-45607 Standard Sample Report Laboratory ID: TCEQ/client pH

Print Date: 11-Nov-24 TCEO COC# 055742

	Nitra
	y Nitrate-N
	Conductivity
I CEU COC# U35/42	Conductivity
	Hd
	Hd
ne Report	CEQ/client

		1
Nitrate-N	units	mdd
/ Nitrate-N		11.324
Conductivity	units	M/Sp
Conductivity		0.386
μd	units	ΑN
μd		7.82
TCEQ/client	Sample ID:	55742-08

14141

Laboratory ID:	Hd	핍		Conductivity Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	па	0.001	M/Sp	0.01	mdd
Reporting Limit	0.1	na	0.001	M/Sp	**	mdd

litrate-N Analysis	Tech	MC
Nitrate-N	Date	11/5/2024
Extract	Tech	FMR
Nitate-N Extract	Date	11/4/2024
tivity	Tech	DEC
Conductivity	Date	10/24/2024
lysis	Tech	DEC
pH Analysis	Date	10/24/2024
ivity prep	Tech	DEC
pH/Conduct	Date	10/24/2024
TCEQ/client	Sample ID:	55742-08
Laboratory ID:		14141

Report ID: 055742b-45607 Print Date: 11-Nov-24
Quality Control Report TCEQ COC# 055742

Laboratory ID:		Mehlich III	Mehlich III Mehlich III Mehlich III	Mehlich III									
		P conc.	P units	K conc.	K units	Ca conc.	Ca units		Σ	S conc.	S units	Na сопс.	Na units
14159	IC1011	40.0	mdd	260	bbm	1974	mdd	293		31.4	mdd	33.2	mdd
14160	IC1012	41.7	mdd	257	ppm	1897	mdd			32.6	mdd	32.3	mdd
	Mean IC	0	mdd	0	bbm	0	mdd			0	mdd	0	mdd
	IC Lower	37.5	mdd	235.0	mdd	1576.0	mdd	275.0	mdd	24.5	mdd	28.0	mdd
	IC Upper	45.9	mdd	300.0	mdd	2350.0	mdd		ррт	39.0	mdd	53.0	mdd
	blk217	0.545	mdd	<1.88	mdd	<2.93	mdd	•	mdd	<0.0100	mdd	<0.100	mdd

Laboratory ID:	Mehlich III N	Mehlich III	Mehlich III	Mehlich III	Mehlich III Mehlich III	Mehlich III Mehlich III	Mehlich III	Mehlich III	Mehlich III	Mehlich III Mehlich III Mehlich III	Mehlich III	Mehlich III
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0219	mdd	1.8799	mdd	2.9331	mdd	0.4222	mdd	0.0100	mdd	0.7463	mdd
Reporting Limit	1	mdd	1	mdd	1	mdd	-	mdd	-	mdd	·	mdd

ਜ਼ ≡	Fech		0	0
Mehlich III	Anal.	JLP	JLP	JLP
Mehlich III	Anal.Date	10/24/2024	10/24/2024	10/24/2024
Mehlich III	Extract Date Extract Tech Anal.Date Anal. Tech	FMR	FMR	FMR
Mehlich III	Extract Date	10/24/2024	10/24/2024	10/24/2024
Laboratory ID: Mehlich III Mehlich III		IC1011	IC1012	blk217

Report ID: 055742b-45607 Print Date: 11-Nov-24

# Quality Control Report

# TCEQ COC# 055742

Laboratory ID:		뇞	Hd	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	COUC.	units	% гесоvегу
14159	IC1011	5.8	па	0.256	dS/M	7.072	mdd	
14160	IC1012	5.8	na	0.253	dS/M	5.683	mdd	
	Mean IC	5.815	Па	0.2545	dS/M	6,3775	mdd	
14160spike	Spiked sample	E	,	Ki	92	6.4	mdd	77.9
	IC lower	5.760	na	0.229	M/Sp	4.7	mdd	
	IC Upper	5.990	na	0.299	M/Sp	7.1	mdd	
	blk217	10	na	0	M/Sp	0.636	mdd	

Laboratory ID:	Fd.	핍	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	nnits	conc.	nnits
Detection Limit	0.01	па	0.001	M/SP	0.01	mdd
Reporting Limit	0.1	па	0.001	dS/M	1	mdd

Nitrate-N Analysis	Tech	24 JW	24 JW	
Nitrat	Date	11/5/2024	11/5/2024	11/5/2024
Nitate-N Extract	Tech	FMR	FMR	FMR
Nitate	Date	11/4/2024	11/4/2024	11/4/2024
Conductivity	Tech	DEC	DEC	DEC
Cond	Date	10/24/2024	10/24/2024	10/24/2024
pH Analysis	Tech	DEC		DEC
PH A	Date	10/24/2024	10/24/2024	10/24/2024
ctivity prep	Tech	DEC	DEC	DEC
pH/Conductivity prep	Date	10/24/2024	10/24/2024	10/24/2024
Laboratory ID:		IC1011	IC1012	blk217

TEXAS	COMMISSION ON ENVIRONMENTAL	QUALITY

# Chain of Custody Record

55743

Location	Hillside Daily (Darly) (Darlot fill in this shaded area if the facility information must be confidential)	Oi My (DO Not fill	in this shade	d area if the	facility info	ormation	musi be	confide	ntial)	Permit #: 3160
Region:	Organization	#	PCA Code	· · ·	Program:	am:			Sampler telephone number:	
E-Mail ID:	-	Sampler:	Sampler: (signature)	Heal	3				Sampler: (please print clearly)	J. O. O.
Lab ID Number	Sample ID	Date		# of Grab/ Bottles Comp.	// Matrix p. L.S,M,O,	CL2 0,T	P. J.	Cond.	ă	REMARKS
14142	-01	1408/5	HSB						SPP RFW	1-0 HB#/W
14143	-02	13424	155							~
41791	-03	Q-19-2d	12:16							
53171	-04	4-19-24	12:15							``
Thih!	-05	4-19-24	12:15							
	90-							ODCESSOR SOLICE		1 1
	-07									1 WHAMEL + 30
	80-									1814 P. T.
	60-									1 minimus 1.
										71-21-11
	-10			•	1					11 1 1 33 P. P.
Relinquished by Company	13	List 10-8-21 9:	S S	Received by	1 V	42-6-0	25		For Laboratory Use:	
Kelinquished by	y:	Date	Time	Received by					Received on ice: Y	N deg. C
Relinquished by:	y:	Date	Time	Received by:					Preservatives: Y	Z
Relinquished by.	.X	Date	Time	Received by:	.;					

2

Seals Infact:
Pink-Contract Lab Manager

Z.

 $\succ$ 

COC Seal:

Shipper Number

Shipper name:

TCEQ-10065 (11/02)

White (Original) -Lab

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055743a-45607 11-Nov-24 Print Date:

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory

108 Soil Testing Laboratory, 2478 TAMU

College Station, TX 77843-2478

979-862-4955

Hillside Dairy Client Name:

not provided Client address:

TCEQ COC# 055743 Standard Sample Report

Process	Tech	J.L.	TLP	TLP	TLP	TLP
Sample Ground	Date	10/20/2024	10/20/2024	10/20/2024	10/20/2024	10/20/2024
Sample opened Sample Ground	Date	10/9/2024	10/9/2024	10/9/2024	10/9/2024	10/9/2024
Sample	Type:	soil	soil	soil	soil	soil
Date	Received	10/9/2024	10/9/2024	10/9/2024	10/9/2024	10/9/2024
TCEQ	Region #	4	4	4	4	4
Collector	Name:	Vanessa Gardner				
Sample Coll.	Date:	9/30/2024	9/30/2024	9/19/2024	9/19/2024	9/19/2024
Sample	Depth (inches)	9-0	6-24	0-2	2-6	6-24
TCEQ/client	Sample ID:	55743-01	55743-02	55743-03	55743-04	55743-05
Laboratory ID:		14142	14143	14144	14145	14146

Methods and Sample Preparation:

Receiving of samples

drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive Processing - SWFTL0097R0.SOP

Analytical Methods:

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP Soil pH 2:1 DI water:soil

then transferred to the laboratory sample cups and while additional sample was stored.

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP Soil P, K, Ca, Mg. S and Na -- Mehlich III by ICP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Report ID: 055743a-45607 Print Date: 11-Nov-24

	  ≡  ⊹	nits			: 6	: =	: F
	Mehlich III				2 5		mad
	Mehlich III	Na conc.	9.51	35.6	50.7	94.8	86.2
	Mehlich III	S units	шаа	шаа	. E	da	mdd
	III Mehlich III	S conc.	84.4	193	85.4	97.3	127
	Mehlich III	Mg units	ı				mdd
	Mehlich III	Mg conc.	192	186	440	283	154
	Mehlich III	Ca units	mdd	шаа	 	. mdd	mdd
	Mehlich III	Ca conc.	9871	24319	8216	10224	14519
	Mehlich III	K units	mdd	mdd	шаа	mdd	mdd
055743	Mehlich III Mehlich III	P units K conc.	190	146	397	333	155
TCEQ COC# 055743	Mehlich III	P units	mdd	mdd	mdd	mdd	mdd
T	Mehlich III	P conc.	62.6	5.41	212	25.1	6.56
le Report	TCEQ/client	Sample ID:	55743-01	55743-02	55743-03	55743-04	55743-05
Standard Sample Report	Laboratory ID:		14142	14143	14144	14145	14146

Laboratory ID:	Mehlich III N	Mehlich III Mehlich III	Mehlich III	Mehlich III	Mehlich III	Mehlich III						
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0219	mdd	1.8799	mdd	2.9331	mdd	0.4222	mdd	ı	mdd	1	maa
Reporting Limit	_	mdd	1	ppm	_	mdd	τ-	mdd	<u>_</u>	mdd	_	mdd

III Mehlich III	ate Anal. Tech	024 JLP				
Mehlich III	Anal.D	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
Mehlich III	Extract Date Extract Tech Anal.Date	FMR	FMR	FMR	FMR	FMR
Mehlich III	Extract Date	10/24/2024	10/24/2024	10/24/2024	10/24/2024	10/24/2024
TCEQ/client	Sample ID:	55743-01	55743-02	55743-03	55743-04	55743-05
Laboratory ID:		14142	14143	14144	14145	14146

Print Date: 11-Nov-24 TCEQ COC# 055743 Report ID: 055743a-45607 Standard Sample Report

	r		r				
	Nitrate-N	units	mdd	mdd	mdd	mdd	mdd
	Nitrate-N		8.794	3.68	29.394	10.046	4.009
	Conductivity	units	M/Sp	dS/M	M/Sp	M/Sp	M/Sp
# 033/43	Conductivity		0.223	0.279	0.309	0.325	0.421
- CEU COC# 055/45	Hd	units	AN	N A	N A	A A	NA
	Hd		7.66	7.9	7.54	7.74	7.86
III pie Repoil	TCEQ/client	Sample ID:	55743-01	55743-02	55743-03	55743-04	55743-05
Stalldald Salliple Repo	Laboratory ID:		14142	14143	14144	14145	14146

Laboratory ID:	栕	핍	Conductivity	Conductivity Conductivity	Nitrate-N	Nitrate-N
		units		nnits		nnits
Detection Limit	0.01	na	0.001	M/Sp	0.01	mdd
Reporting Limit	0.1	na	0.001	dS/M	1	mdd

	ı										
aboratory ID: TCEQ/client pH/Conductivity prep	pH/Conductivity prep	vity prep		pH Analysis	lysis	Conductivity	tivity	Nitate-N Extract	Extract	Nitrate-N Analysis	nalys
Sample ID: Date Tech		Tech		Date	Tech	Date	Tech	Date	Tech	Date	Tech
55743-01 10/24/2024 DEC	10/24/2024 DEC	DEC		10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	3
55743-02 10/24/2024 DEC 1	DEC 1	_	_	0/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	?
55743-03 10/24/2024 DEC 1	DEC 1	-	=	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	?
55743-04 10/24/2024 DEC	_	DEC		10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Ş
55743-05 10/24/2024 DEC 1	_	DEC 1	~	0/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Š

Report ID: 055743a-45607 Print Date: 11-Nov-24 Quality Control Report

Laboratory ID:		Mehlich III	Mehlich III Mehlich III	Mehlich III									
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Ma conc.	S conc.	Sunits	Na conc	
14159	IC1011	40.0	mdd	260	mdd	1974	mdd	293	mdd	31.4	mdd	33.2	Maa
14160	IC1012	41.7	mdd	257	mdd	1897	mdd	298	mdd	32.6	mdd	32.3	
	Mean IC	0	mdd	0	шdd	0	mdd	0	mdd	0	maa	0	
	IC Lower	37.5	mdd	235.0	mdd	1576.0	mdd	275.0	mdd	24.5	waa	28.0	
	IC Upper	45.9	bpm	300.0	шdd	2350.0	mdd	350.0	шаа	39.0	. a	53.0	maa
	blk217	0.545	шdd	<1.88	шда	<2.93	mda	<0.422	Шаа	<0.0100	maa	<0.100	
												20.1.0	- 122

Laboratory ID:	Mehlich III N	Mehlich III	Mehlich III	Mehlich III								
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Ma conc.	Mq conc.	Sconc.	Sunits	Naconc	•
Detection Limit	0.000	8 6 6	4 0700		7000		2	2000			2000	
הכוככווסון דוווווו	0.0213	1	1.0788	mdd	2.9331	mdd d	0.4222	mdd	0.0100	mdd	0.7463	mdd
Reporting Limit	1	mdd	_	mdd	_	mdd	×	maa	æ	maa	-	200
								100				11122

Laboratory ID: Mehlich III Mehlich III	2	Mehlich III	Mehlich III Mehlich III	Mehlich III
Extract Date	ũ	xtract Tech	Extract Date Extract Tech Anal.Date Anal. Tech	Anal. Tech
10/24/2024		FMR	10/24/2024	JLP
10/24/2024		FMR	10/24/2024	JLP
10/24/2024		FMR	10/24/2024	JLP

Report ID: 055743a-45607

Print Date: 11-Nov-24

Quality Control Report

TCEQ COC# 055743

Laboratory ID:		Hd	핌	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N Nitrate-N
			units	conc.	units	conc.	units	% recovery
14159	IC1011	5.8	na	0.256	M/Sp	7.072	mdd	
14160	IC1012	5.8	па	0.253	M/Sp	5.683	mdd	
	Mean IC	5.815	na	0.2545	M/Sp	6.3775	mdd	
14160spike	Spiked sample	9	,	at	Ī	4.9	mdd	77.9
	IC lower	5.760	na	0.229	M/Sp	4.7	mdd	
	IC Upper	5.990	па	0.299	M/Sp	7.1	mdd	
	blk217	31	na	0	M/SP	0.636	mdd	

Laboratory ID:	Hd	됩	Conducitity	Conducitity Conducitity	Nitrate-N	Nitrate-N
		nnits	conc.	nnits	conc.	units
Detection Limit	0.01	Па	0.001	M/SP	0.01	mdd
Reporting Limit	0.1	na	0.001	M/Sp	1	mdd

Laboratory ID:	pH/Conductivity prep	rity prep	pH Analysis	/sis	Conductivity	ivity	Nitate-N Extract	Extract	Nitrate-N Analysis	nalysis
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC1011	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	λk
IC1012	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Mς
blk217	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	MΥ

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY	ION ON AENTAL		S	ain of	Cust	Chain of Custody Record	cord	,	er sound to southward the c	55744
Location:	HISIAP	Da1/4	in this shade	d area if the f	acility inform	in this shaded area if the facility information must be confidential)	nofidential)		Permit #	316 O
Region:	Organization #:		PCA Code:	<u></u>	Program:		Sampler	Sampler telephone number:		
E-Maii ID:		Sampler	Sampler: (signature)	Here			Sampler	Sampler: (please print clearly)	000	Ĺ
Lab ID Number	Sample ID	Date	Time	# of Grab/ Bottles Comp.	Matrix 0. L,S,M,O,T	CL2 pH	Cond	alyses Reque		REMARKS
	-01							BALLA	13	1 080 HA
£hlha	-02	4-19-21	4:48				a	SUL REA	Lm(	Lmuth 2-6
	-03									
	-04									
	-05									
	90-									
	-07				921100-111		******************			
	-08						Made and the later of the later			
	-09						-			
·	-10			4	7		-			
Relinquished by	Lateld	Date No S	Time 9:00	Received by:	210	4 2 7		For Laboratory Use:		
Relinquished by:	>	Date	Ттте	Received by	)	}	O SHEW CONTROL	Received on ice:	Z	dea. C
Relinquished by:		Date	Time	Received by:			Preservatives:	atives: Y	2.	
Relinquished by:		Date	Time	Received by:			COC Seal:	eal:	Z	
Shipper name:		Shipper Number:	umber:	18/6	7851 081		Seals Intact:	ntact: Y	7	
TCEQ-10065 (11/02)		White (Original) -Lab	jinal) -Lab		Yellow-Lab		Pink-Contract Lab Manager	ab Manager	Goldenro	Goldenrad-Collector Copy

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055744a-45607 Print Date: 11-Nov-24

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory

08 Soil Testing Laboratory, 2478 TAMU

College Station, TX 77843-2478

979-862-4955

Client Name: Hillside Dairy

Client address: not provided

Standard Sample Report TCEQ COC# 055744

Laboratory ID:	TCEQ/client	Sample	Sample Coll.	Collector	TCEQ	Date	Sample	Sample opened	Sample Ground	Process
	Sample ID:	Depth (inches)	Date:	Name:	Region #	Received	Type:	Date	Date	Tech.
14147	55744-01	2-6	9/19/2024	Vanessa Gardner	4	10/9/2024	soil	10/9/2024	10/20/2024	TLP

Methods and Sample Preparation:

Receiving of samples Processing - SWFTL0097R0.SOP

drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive

then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water: Soil Soil PH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. ln: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP Soil Nitrate-N KCI Extractable with Cd-Reduction Analyses

Keeney, D.R. and D.W. Nelson. 1982, Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP Soil P, K, Ca. Mg, S and Na -- Mehlich III by ICP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant Commun. Soil Sci. Plant Anal. 15(12):1409-1416

	Mehlich III	Na units	mdd
	Mehlich III	Sunits Na conc. Na units	25.0
	Mehlich III	Sunits	
	Mehlich III	Mg units S conc.	114
	Mehlich III	Mg units	ppm 114
	Mehlich III	Ca units Mg conc.	281
	Mehlich III	Ca units	ppm 281
	Mehlich III	K units Ca conc.	13299
	Mehlich III	K units	mdd
Print Date: 11-Nov-24 CEQ COC# 055744	Mehlich III	K conc.	264
Print Date: 11-Nov- TCEQ COC# 055744	Mehlich III	P units	mdd
	Mehlich I	Sample ID: P conc. P units K conc.	70.0
Report ID: 055744a-45607 dard Sample Report	-aboratory ID: TCEQ/client	Sample ID:	55744-01 70.0
Report ID: 055744a Standard Sample Report	Laboratory ID:		14147
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Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III	Mehlich III	Mehlich III	Mehlich III					
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mq conc.	S conc.	Sunits	Na conc.	Naumits
Detection Limit	0.0219	mdd	1.8799	mdd	2.9331	mdd	0.4222	mdd	0.0100	maa	0.7463	maa
	•		•							-	)	L
Reporting Limit		mdd	_	mdd	_	шаа	_	maa	_	maa	_	muu
				0.000000		C 12 12 12 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13						

aboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Date Extract Tech Anal.Date	Anal.Date	Anaf. Tech
14147	55744-01	10/24/2024	FMR	10/24/2024	JLP

Report ID: 055744a-45607 Standard Sample Report Laboratory ID: TCEQ/client pH

Print Date: 11-Nov-24 TCEQ COC# 055744

		1
Nitrate-N	units	mdd
Nitrate-N		16.067
Conductivity	units	M/Sp
Conductivity		0.224
I.	units	AN
I d		7.66
CEC/Client	Sample ID:	55744-01
aboratory IU:		14147

Laboratory ID:	핍	핍	Conductivity (	Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	na	0.001	M/Sp	0.01	mdd
Reporting Limit	0.1	na	0.001	dS/M	-	wdd

ľ											
	TCEQ/client	pH/Conductivity	ity prep	pH Analysis	ysis	Conductivity	tivity	Nitate-N Extract	Extract	Nitrate-N Analysi	Analysis
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
	55744-01	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Wſ

Report ID: 055744a-45607 Quality Control Report

Print Date: 11-Nov-24 TCEQ COC# 055744

Mehlich III													
P conc.         P units         K conc.         K units         Ca conc.         Ca units         Mg conc.         S conc.         S units         Na conc.           40.0         ppm         260         ppm         1974         ppm         298         ppm         31.4         ppm         33.2           41.7         ppm         257         ppm         1897         ppm         0         ppm         32.6         ppm         32.6         ppm         32.3           37.5         ppm         235.0         ppm         1576.0         ppm         275.0         ppm         24.5         ppm         28.0           45.9         ppm         330.0         ppm         2350.0         ppm         45.9         ppm         40.100         ppm         40.100		Mehlich III	٦	Mehlich III	Mehlich III								
40.0         ppm         260         ppm         1974         ppm         298         ppm         31.4         ppm         33.2           41.7         ppm         257         ppm         1897         ppm         298         ppm         32.6         ppm         32.3           0         ppm         0         ppm         0         ppm         0         ppm         32.5         ppm         0           37.5         ppm         235.0         ppm         1576.0         ppm         275.0         ppm         24.5         ppm         28.0           45.9         ppm         330.0         ppm         2350.0         ppm         53.0         53.0           0.545         ppm         <1.88		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.		Na conc.	Na units
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0 ppm 0 ppm 0 ppm 0 ppm 0 ppm 0 275.0 ppm 24.5 ppm 28.0 45.9 ppm 2350.0 ppm 336.0 ppm 2350.0 ppm 336.0 ppm 53.0 ppm 53.0 ppm 63.0	1012	41.7	bbm	257	mdd	1897	mdd	298	mdd	32.6		32.3	mdd
37.5 ppm 235.0 ppm 1576.0 ppm 275.0 ppm 24.5 ppm 28.0 45.9 ppm 300.0 ppm 2350.0 ppm 350.0 ppm 53.0 0.545 ppm <1.88 ppm <2.93 ppm <0.422 ppm <0.0100 ppm <0.100	an IC	0	mdd	0	mdd	0	mdd	0	mdd	0		0	mad
45.9 ppm 300.0 ppm 2350.0 ppm 350.0 ppm 39.0 ppm 53.0 0.545 ppm <0.0100 ppm <0.100	-ower	37.5	mdd	235.0	mdd	1576.0	mdd	275.0	mdd	24.5		28.0	mdd
0.545 ppm <1.88 ppm <2.93 ppm <0.422 ppm <0.0100 ppm <0.100	Лррег	45.9	mdd	300.0	mdd	2350.0	mdd	350.0	mdd	39.0		53.0	mdd
	<b>C217</b>	0.545	mdd	<1.88	тида	<2.93	шда	<0.422	mdd	<0.0100		<0.100	шаа

Laboratory ID: Mehlich III	Mehlich III Mehlich III Mehlich III	Mehlich III	Mehlich III	II Mehlich III Me	Mehlich III	Mehlich III	Mehlich III					
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	Sunits	Na conc.	Na units
Detection Limit	0.0219	mdd	1.8799	mdd	2.9331	mdd	0.4222	1	1	maa		maa
Reporting Limit	-	mdd	_	mdd	_	mdd	<u>v.</u>	mdd	-	mdd	_	шdd

ř.		ř		
Mehlich III Mehlich III	Anal. Tech	JLP	JLP	JLP
Mehlich III	Anal.Date	10/24/2024	10/24/2024	10/24/2024
Mehlich III	Extract Date Extract Tech Anal.Date Anal. Tech	FMR	FMR	FMR
Mehlich III	Extract Date	10/24/2024	10/24/2024	10/24/2024
Laboratory ID: Mehlich III Mehlich III		IC1011	IC1012	blk217

Report ID: 055744a-45607

TCEQ COC# 055744

Print Date: 11-Nov-24

Quality Control Report

Laboratory ID:		Н	Hd	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	conc.	units	% recovery
14159	IC1011	5.8	Па	0.256	M/Sb	7.072	mdd	
14160	IC1012	5.8	na	0.253	dS/M	5.683	mdd	
	Mean IC	5.815	па	0.2545	M/SD	6.3775	mdd	
14160spike	Spiked sample	¥.	1	*	1	4.9	mdd	77.9
	IC lower	5.760	na	0.229	M/Sp	4.7	mdd	
	IC Upper	5.990	na	0.299	M/SD	7.1	mdd	
	blk217		na	0	dS/M	0.636	mdd	

Laboratory ID:	핍	Ħ	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	dS/M	0.01	mdd
Reporting Limit	0.1	na	0.001	M/Sp	ST.	mdd

Laboratory ID:	pH/Conductiv	ctivity prep	pH Analysis	lysis	Conductivity	ivity	Nitate-N Extract	Extract	Nitrate-N Analysis	nalysis
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC1011	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Mſ
IC1012	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	MΩ
blk217	10/24/2024	DEC	10/24/2024	DEC	10/24/2024	DEC	11/4/2024	FMR	11/5/2024	Wſ

servitech 6921 S. Bell • Amarillo, TX 79109 www.servitech.com

Moisture

C:N Ratio

**Total Solids** 

Ash

Organic Matter

**Phone:** 806.677.0093

800.557.7509

Fax: 806.677.0329

.ab No: <b>3723</b>	LABORA	TORY	ANALYSI	S REPORT	Report Date: 07/0	2/2024 01:06 pm
<b>Send To:</b> 6224	ENVIRO-AG ENGIN 3404 AIRWAY BLV AMARILLO, TX 79	D	INC		Amy I Data Review	
Client Name: Sample ID: Location	HILLSIDE DAIRY WW ERATH COUNTY			Received: Sampled: Invoice No: P.O. #:	06/14/2024 425818	
		Analysi	s results	lbs/ac	re-in	meq/L
NUTRIENTS		Analysi	s results		re-in	meq/L
Nitrogen			s results			
Nitrogen Total Nit		138	ppm		31	9.9
Nitrogen Total Nit Organic	Nitrogen	138 51			31 12	9.9
<u>Nitrogen</u> Total Nit Organic Ammoni	Nitrogen um Nitrogen	138 51 45.2	ppm		31 12 10	9.9 3.6 3.2
<u>Nitrogen</u> Total Nit Organic Ammoni	Nitrogen	138 51	ppm ppm		31 12	9.9
Nitrogen Total Nit Organic Ammoni Nitrate+I	Nitrogen um Nitrogen	138 51 45.2	ppm ppm ppm		31 12 10	9.9 3.6 3.2
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Nitrogen Total Nit Organic Ammoni Nitrate+I Major and So	Nitrogen um Nitrogen Nitrite Nitrogen econdary Nutrients orus orus as P2O5	138 51 45.2 42	ppm ppm ppm ppm		31 12 10 10	9.9 3.6 3.2

99.8

0.2

0.1

0.1

4.2

% % %

ratio

453

227

### AMARILLO STERENVILLE ARTESIA Enviro-Ag Engineering, Inc.

Enviro-Ag Engineering, Inc. 3404 Airway Blvd, Amarillo, TX 79118 Tel. 806-353-6123 Fax 806-353-4132

### WASTEWATER CHAIN OF CUSTODY RECORD

Producer/Facility:

Hillside Dairy

County:

Erath

Date Sampled:

6/14/2024

Date Shipped:

6/17/2024

Project Manager: Corey Mullin

eservation	Matri
Y	ОТ

Relinquished By: Ref. Internal COC	Relinquished By: Lisa Postmu	Relinquished By:	
Company: EAE	Company: EAE	Company:	ServiTech Lab
	Date/Time: UK /	040	

Received By: WHUM

**Phone:** 806.677.0093

800,557,7509 **Fax:** 806,677,0329

ab No.: <b>3724</b>	LABO	RATORY A	NALYSIS	REPORT	Report	Date: 06	/30/2024 (	08:55 pm
<b>Send To</b> : 6224	ENVIRO-AG 3404 AIRWA` AMARILLO, T		INC		0	my	Me	ier
					ı	Amy Data Revie	, Meier w Coordir	ator
Results For: Sample ID: Location	HILLSIDE DA SLURRY ERATH COU			Received Sampled Invoice No P.O. s	d: 06/14/2 d: 425818	.024		
	·				Total	content	Estimated first y	
			Analysis (dry basis)	Analysis (as rec'd)	lbs per Acre-In	lbs per 1000 gal	lbs per Acre-In	lbs per 1000 gal
NUTRIENTS								
Nitrogen								
Total Nitro		%	2.736	0.342	6202.5	30.8		
Organic Ni		%	1.64	0.205	3717.9	18.4		
Ammoniun		%	1.096	0.137	2484.6	12.3		
Nitrate+Nit	rite Nitrogen	%	<0.0010	<0.0010	0	<0.1	<0.	1 <0.
Major and Sec	ondary Nutrients	3						
Phosphoru		%	0.544	0.068				
Phosphoru	s as P2O5	%	1.248	0.156	2829.2	14.0	318.	3 12.
Potassium		%	2.064	0.258				
Potassium	as K2O	%	2.48	0.310	5622.2	27.9	702.	8 27.
OTHER PROPERT	TIES							
Moisture		%		87.5				
Total Solid		%		12.5	226700	1125		
	nic Matter	%	64.0	8.0	145088	720		
Ash		%		4.5		405		
C:N Ratio		ratio		13.6				
Density		lbs/gal	70.4	8.8				

<sup>\*</sup> Assumes 40% of organic nitrogen available during first crop year after application. Assumes 100% of ammonium and nitrate nitrogen available, but should be adjusted for potential field losses at application site.

### ENVIRO-AG ENGINEERING, INC.

Enviro-Ag Engineering, Inc. 3404 Airway Blvd,. Amarillo, TX 79118 Tel. 806-353-6123 Fax 806-353-4132

### MANURE CHAIN OF CUSTODY RECORD

Producer/Facility:

Hillside Dairy

County:

Erath

Date Sampled:

6/14/2024

Date Shipped:

6/17/2024

Project Manager: Corey Mullin

Sample Type	Sample ID	Number of Containers	Test Package	Proper Preservation	Matrix
Slurry	Slurry	1 3724	EAE TX CO KS SLURRY	Y	SL
					7.301
				T HELL	

Relinquished By: Ref. Internal COC	Relinquished By:	Lisa Postmu	Relinquished By:	
Company: EAE	Company:	EAE	Company:	ServiTech Lab
	Date/Time:	1918,1	040	

### 5.0 RECHARGE FEATURE CERTIFICATION

### CERTIFICATION

I certify that potential Recharge Features in the form of artificial penetrations and natural features exist on property utilized under this application as defined in 30 TAC §321.32(50). The protective measures in the form of best management practices identified in this report, when implemented, are designed to avoid adverse impacts to these features and associated groundwater formations.

All information presented on this page and in the following supporting documents is true and accurate to the best of my knowledge.

NORMAN H. MULLIN

10 66107

10 1055/ONAL ENGLISH

Norman Whilm

3

3/27/25

Norman Mullin, P.E.

Enviro-Ag Engineering, Inc.

Firm #F-2507

### 5.1 General

This recharge feature certification report was authorized by Mr. Clemens Kuiper representing Hillside Dairy. The findings and recommendations contained herein were compiled by Ms. Jourdan Mullin and Mr. Norman Mullin, P.E., of Enviro-Ag Engineering, Inc., Amarillo, Texas.

### 5.2 Purpose of Report

Hillside Dairy is applying for a major amendment of current TPDES #3160 under 30 TAC, Chapter 321, Subchapter B, Concentrated Animal Feeding Operations. The purpose of this report is to determine if the subject property has any natural or artificial features, either on or beneath the ground surface, which would provide a significant pathway for effluent or solids from the facility into the underlying aquifer. At a minimum, the records and/or maps of the following entities/agencies were reviewed to locate any artificial recharge features: A) Texas Railroad Commission, B) local water district, C) Texas Water Development Board, D) TCEQ, E) Natural Resource Conservation Service (NRCS), F) current land owners and G) onsite inspection. The TCEQ Regulatory Guidance RG-433 was followed to identify recharge features and recommend best management practices.

### 5.3 Property Under Evaluation

The property under evaluation consists of approximately 372 acres in Erath County, Texas. The area is within the jurisdiction of Middle Trinity Ground Water Conservation District.

### 5.4 Definition of Waste Production

The processes by which wastewater is produced at a dairy begins with the use of fresh water to clean manure from the milking parlor and equipment sanitization. Wastewater from the milking parlor is directed to the sand land then to a concrete settling basin and then to RCS #1 and RCS #2 for storage and disposal through beneficial land application.

The second process of wastewater production involves the accumulation of manure solids in the open confinement lots. Rain falling on the open lots comes into contact with the manure layer and absorbs some of the excreted nutrients present in manure. The nutrient enriched runoff is considered wastewater, which flows by designed slopes from the open lots toward the concrete settling basins and into the RCS.

Manure solids accumulated in the open confinement lots are collected at least annually and hauled off-site to farmland by a waste transporter. While in the open lots, manure becomes compacted and slowly permeable due to hoof action by the cattle. This compacted manure layer results in an increase of the overall runoff volume during rainfall events. Infiltration of nutrients downward through the manure layer into the underlying soils is considered minimal as a result of pen surface compaction (Sweeten, 1990).

### 5.5 Definition of Recharge Feature

TCEQ rules define a "Recharge Feature" as: "Those natural or artificial features either on or beneath the ground surface at the site under evaluation that provide or create a significant hydrologic connection between the ground surface and the underlying groundwater within an aquifer. Significant artificial features include, but are not limited to, wells and excavation or material pits. Significant natural hydrologic connections include, but are not limited to: faults, fractures, sinkholes or other macro pores that allow direct surface infiltration; a permeable or shallow soil material that overlies and aquifer; exposed geologic formations that are identified as an aquifer; or a water course bisecting an aquifer." (30 TAC §321.32(50))

The TCEQ Regulatory Guidance RG-433 further defines a "recharge feature" as: "A natural or artificial feature either on or beneath the ground surface that provides or creates a <u>significant</u> hydrologic connection (or pathway) between the ground surface and the underlying groundwater within an aquifer."

The guidance document also defines a "significant pathway" as: "A significant pathway between the land surface and the subsurface has the ability to transmit waste, wastewater, or precipitation mixed with waste to groundwater. The wastewater may impact the groundwater quality within an aquifer or migrate laterally to discharge as seeps that may impact surface water quality. Recharge features with significant pathways include geomorphologic, geologic, soil, and artificial features. Agricultural practices may also enhance existing recharge features."

### EVALUATION OF NATURAL FEATURES

### 5.6 Geomorphologic/Geologic Features

The Denton-Purves and Maloterre-Purves-Dugout soil associations in this area of Erath County are immediately underlain by the Cretaceous Walnut Formation as shown in Figure 5.1, Geologic Atlas.

The Walnut Formation comprises the beds of clay and nonchalky limestones at the base of the Fredericksburg division. They consist of alternations of calcareous laminated clays, weathering yellow on oxidation, semicrystalline limestone flags, and shell agglomerates, all of which grade upward without break into the chalkier beds of the Edwards limestone. In places they weather into rich black soils and make extensive agricultural belts (Hill, 1901).

Forming the upper unit of the Trinity Group, the Paluxy Formation consists of up to 400 feet of predominantly fine to coarse-grained sand interbedded with clay and shale. Underlying the Paluxy, the Glen Rose Formation forms a gulfward-thickening wedge of marine carbonates consisting primarily of limestone. Paluxy bedrock outcrops along the northeast portion of this site. Limiting application rates of wastewater and manure will protect this feature form adverse impacts.

The basal unit of the Trinity Group consists of the Twin Mountains and Travis Peak formations, which are laterally separated by a facies change. To the north, the Twin Mountains Formation consists mainly of medium-to coarse-grained sands, silty clays, and conglomerates (Ashworth, 1995).



Map Generated 3/24/2025



Legend:
Kwa Cretaceous Walnut Formation
Denotes Facility Location



No Scale

Source: Geologic Atlas of Texas, Abilene Sheet, 1972.

Hillside Dairy Stephenville, Texas **Erath County** 

Geologic Atlas of Texas Figure 5.1 Page 21



Enviro-Ag Engineering, Inc. ENGINEERING CONSULTANTS 3404 Airway Boulevard AMARILLO, TEXAS 79118 TEL (806) 353-6123 FAX (806) 353-4132

### 5.6.1 Outcrops/Stream Interception

An inspection of the CAFO property and review of the USGS topographic map of the area shows intermittent tributaries to Duffau Creek located in LMUs #E1, #3, #5, and #10. All of these areas are protected from waste and wastewater application with the required buffers. The freshwater pond located in LMU #3A is also protected with buffers from waste and wastewater application. The freshwater ponds that were located in LMUs #1, #3A (southern portion) and #3 are not present. They have been backfilled in with dirt.

### 5.6.2 Excessive Slopes

No slopes of greater than 8 percent are present on the property.

### 5.6.3 Other Large-Scale Conduits

No faults, fractured sediments, caves, sinkholes, solution cavities, vugs or concentrated or extensive animal burrowing was observed during an on-site visit, nor is identified on the geologic atlas, soil surveys or USGS maps.

### 5.6.4 Surface Water

The "water in the state" designation is based on Enviro-Ag Engineering, Inc., site inspections, the permittee's knowledge of the property and the USDA-FSA aerial photograph (2017). The buffer zones and LMU boundaries in Figure 6.1 (Refer to Section 6) are submitted with this application for TCEQ approval.

### 5.6.5 Aquifer

The Trinity aquifer consist of early Cretaceous age formations of the Trinity Group where they occur in a band extending through the central part of the state in all or parts of 55 counties, from the Red River in North Texas to the Hill Country of South-Central Texas.

Formations comprising the Trinity Group are (from youngest to oldest) the Paluxy, Glen Rose, and Twin Mountains-Travis peak. Updip, where the Glen Rose thins or is missing, the Paluxy and Twin Mountains coalesce to form the Antlers Formation. The Antlers consists of up to 900 feet of sand and gravel, with clay beds in the middle section. Water from the Antlers is mainly used for irrigation in the outcrop area of North and Central Texas (Ashworth and Hopkins, 1995).

The aquifer is underlain and confined by low-permeability rocks that range in age from Precambrian to Jurassic. Where the aquifer does not crop out, it is confined above by the Walnut Formation in most of the area.

Recharge to the Trinity aquifer is generally as precipitation that falls on aquifer outcrop areas and as seepage from streams and ponds where the head gradient is downward. In the Hill Country, water might flow laterally into the Trinity aquifer form the adjacent Edwards-Trinity aquifer. The aquifer discharges by evapotranspiration, spring discharges, diffuse lateral or upward leakage into shallower aquifers, and withdrawals from wells

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(USGS, 2003). Land application at agronomic rates and maintain permanent cover crops will protect the feature from adverse impacts associated with this operation.

### 5.7 Soil Features

Soil mapping units included in this section for the production area and land application areas were taken from the electronic NRCS Soil Survey for Erath County. Soils descriptions are included in the supporting documentation and were obtained from the most current version of the NRCS electronic soil information database for Erath County available on the NRCS Web Soil Survey.

### 5.7.1 Production Area

Soils underlying the pen and pond areas are predominately of the Slidell (HoB), Maloterre (Ma), Purves (PcB & PcC) and Purves-Dugout-Maloterre (Pd) series. The RCS has been certified as meeting TCEQ guidelines for soil liner (30 TAC §321.38(g). Best management practices pertaining to surface drainage, surface compaction and manure management within the open lot confinement area will be followed. Steve Evans, Ph.D., soil physicist with the USDA Agricultural Research Service in Bushland, Texas, stated that his work with lysimeters and potential evapotranspiration indicated limited infiltration, and even less deep percolation will occur on areas with sloped surfaces (1996). Work performed by the NRCS calculated the feedlot surface curve number (potential for runoff) as 90 on a scale of 100.

### 5.7.2 Land Application Areas

Soils underlying the land application areas are primarily of the Slidell (HoA & HoB), Maloterre (Ma), Purves (PcB and PcC) and Purves-Dugout-Maloterre (Pd) series. The application of wastewater and/or manure will be performed at agronomic rates according to an approved NUP/NMP. No pooling or ponding is anticipated due to application through sprinklers.

Figure 5.2 shows the soils underlying the property as delineated from the electronic NRCS Soil Survey map for Erath County. The electronic version of the soil survey is considered the most current soils information available. Table 5.1 is a summary of the estimated physical properties of the soils in the subject area, obtained from the NRCS Web Soil Survey.

Table 5.1: Estimated Soil Properties

Soil Series (Map ID)	Slope (%)	HSG	Depth (in)	USDA Soil Texture	Permeability / Infiltration Rate (in/hr)	Available Water Capacity (in/in of soil)
HoA: Slidell	0-1	D	0-25	Clay	.001-0.06	0.10-0.18
HoB: Slidell	1-3	D	0-19	Clay	.001-0.06	0.10-0.18
			19-32		.001-0.06	0.10-0.18

Ma: Maloterre	*****	D	0-5 5-20	Gravelly Clay Loam	0.6-2.0 0.06-2.0	0.14-0.16
PcB: Purves	1-3	D	0-8 8-12 12-14 14-40	Clay	0.06-0.20 0.06-0.6 0.06-0.6 0.06-2.0	0.12-0.20 0.08-0.18 0.04-0.07
PcC: Purves	3-5	D	0-7 7-12 12-17 17-40	Clay	0.06-0.20 0.06-0.6 0.06-0.6 0.06-2.0	0.12-0.20 0.08-0.18 0.04-0.07
Pd: Puves	Papaga.	D	0-8 8-12 12-14 14-24	Stony Clay	0.06-0.20 0.06-0.6 0.06-0.6 0.06-2.0	0.11-0.20 0.08-0.18 0.04-0.07
Dugout		D	0-8 8-18 18-28	Gravelly Clay Loam	0.20-0.6 0.20-0.6 0.06-2.0	0.06-0.15 0.07-0.16
Maloterre		D	0-8 8-18	Gravelly Clay Loam	0.6-2.0 .001-0.06	0.06-0.11

The major soil series within each LMU are identified in Table 5.2. All soils at the site that have been identified by NRCS as being at high risk for various limitations are presented in Table 5.3. Associated best management practices will be implemented, as appropriate, based on physical and economic conditions.

Table 5.2: Major Soil Types

LMU ID	Major Soil Type
1, 4	Purves-Dugout-Maloterre (Pd)
2, 5	Purves (PcB)
3A, 4A, E1	Slidell (HoB)
3	Maloterre (Ma)

Table 5.3: Potential Soil Limitations for Land Application

Soil Series	Potential Soil Limitations	Best Management Practices
PcC, PcB	Depth to Hard Bedrock	- Land Application not to exceed agronomic rates for
	Droughty	nutrients and soil hydraulic rates (refer to NMP).
	Slow Water Movement	- No land application to inundated soils.
		– Land Application will be based upon the AWC (refer to
		NMP) of the soil and will not exceed agronomic rates for
		nutrients.
		-Maintain cover crop in LMUs.
		-Maintain soil moisture to promote crop growth.
HoA, HoB	Slow Water Movement	- Land Application not to exceed agronomic rates for
		nutrients and soil hydraulic rates (refer to NMP).
		- No land application to inundated soils.

24 Hillside Dairy

Soil Series	Potential Soil Limitations	Best Management Practices
Ма	Droughty	- Land Application not to exceed agronomic rates for
	Depth to Hard Bedrock	nutrients and soil hydraulic rates (refer to NMP).
		- No land application to inundated soils.
		-Maintain cover crop in LMUs.
		-Maintain soil moisture to promote crop growth.
Pd	Droughty	- Land Application not to exceed agronomic rates for
	Depth to Bedrock	nutrients and soil hydraulic rates (refer to NMP).
	Slow Water movement	- No land application to inundated soils.
	Large Stones	-Maintain cover crop in LMUs.
		-Maintain soil moisture to promote crop growth.

### 5.7.3 Erosion

Figure 5.2 shows the onsite soils classified by NRCS as Highly Erodible Land (HEL), including Purves (PcB and PcC). LMUs will be protected with typical conservation farming practices within the standards of the NRCS. The following methods will be used to control/prevent erosion of exposed soils in the production area:

- Seeding/sprigging exposed areas with forage or cover crops,
- Constructing terraces or berms (shortening the length and steepness of slopes),
- Covering erosive areas with road surfacing materials,
- Implementing reduced tillage practices,
- Maintaining a cover of plants or crop residue.



Map Generated 3/25/2025

LEGEND:

Denotes Production Area

For specifics on soils, refer to Table 5.1



SCALE AS SHOWN

Source: USDA-NRCS Soil Survey, Soil Survey Geographic Database for (Erath County, TX). Available at:

http://soildatamart.nrcs.usda.gov. Accessed November

2017.

Hillside Dairy Stephenville, Texas Erath County

NRCS Soils Map Figure 5.2 Page 26



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1320'

### ARTIFICIAL FEATURES

### 5.8 Railroad Commission Records

A search of the RRC database files was performed No proposed locations or existing penetrations for oil and gas were identified on the subject property. Railroad Commission database information is included as an attachment to this document.

### 5.9 Ground Water Conservation District Records

The Middle Trinity Groundwater Conservation District (GCD) was verbally contacted. Should an abandoned penetration be encountered anywhere on the subject property at any time, the penetration will be marked, inspected and properly sealed to prevent a potential impact to the underlying aquifer. Appropriate well plugging reports shall be submitted as required to the Texas Department of Licensing and Regulation (TDLR) and will be maintained in the onsite PPP.

### 5.10 GeoSearch

GeoSearch was not utilized in this application.

### 5.11 Texas Water Development Board Water Data Interactive (WDI)

The TWDB WDI online database was reviewed for artificial penetrations. The database revealed water wells registered with the TWDB as being located on the subject property. The wells that could be correlated with onsite wells are shown on Table 5.4.

### 5.12 Natural Resource Conservation Service

The historical NRCS Soil Survey of Erath County (1973) was reviewed for locations of potential recharge features. No potential recharge features were identified.

### 5.13 Other Artificial Features

Numerous features, such as irrigation tail water pits and stock ponds, exist on the subject property and are shown to be buffered on Figure 5.3. These areas shall be buffered during land application events or backfilled prior to the first land application event.

### 5.14 Previous/Current Landowners

Mr. Clemens Kuiper was contacted regarding then presence of any potential recharge features on the property. Mr. Kuiper is considered the most knowledgeable about the property. Mr. Kuiper confirmed the locations of all active water wells.

### 5.15 Onsite Inspection

The property has been inspected both on the ground and by historical mapping. All active water wells were documented on the property during the onsite inspection and are shown on Figure 5.3. The BMPs for all wells are listed in Table 5.4. Should any open well or test hole be encountered, it will be marked, reported to the Engineer, included on Figure 5.3 and properly plugged (30 TAC §321.34(f)(3)(B)). Well plugging reports shall be

27 Hillside Dairy

submitted as required to the Texas Department of Licensing and Registration (Well Drillers Board) and will be maintained in the onsite PPP.

All well data listed in Table 5.4 is based on information received from the water district, TCEQ and TWDB files, onsite inspection, and interviews of persons knowledgeable of the property. The map number corresponds to the location shown in Figure 5.3. The well identification number corresponds to the database number or drilling report number used by the water district, TCEQ or TWDB Commission.

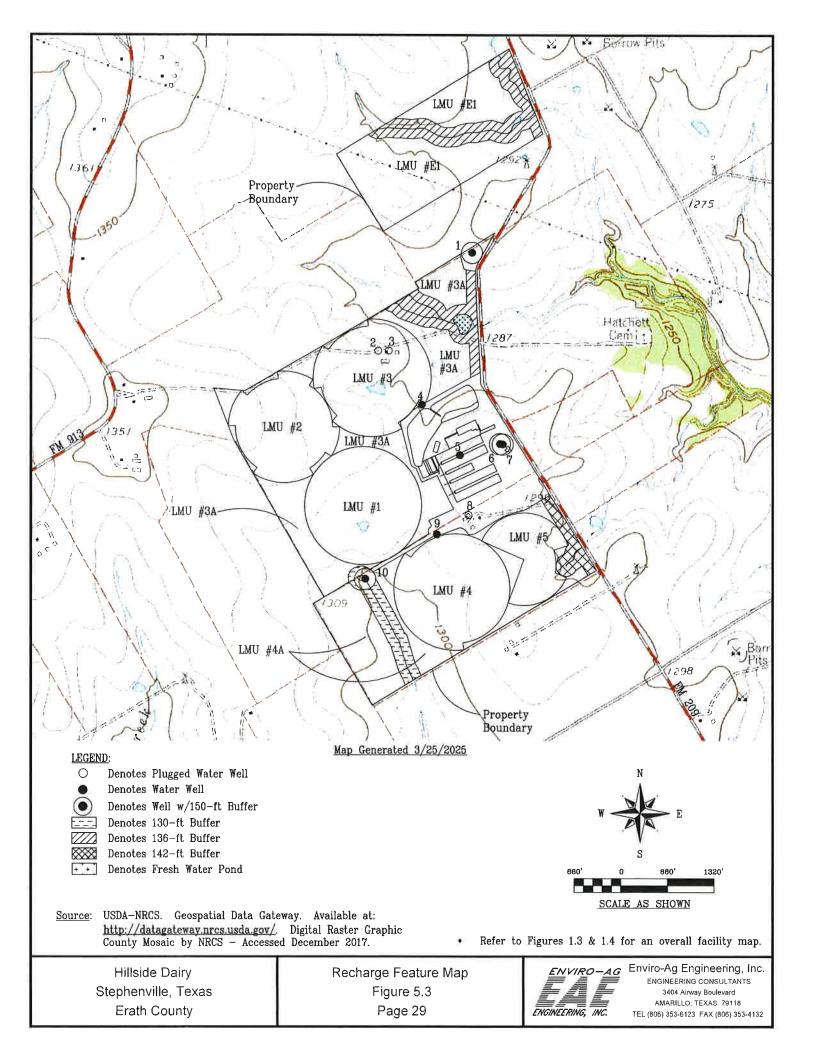
Table 5.4: Well Information

Map No.	Well ID	Best Management Practices
1	10474	Maintain 150-ft buffer
2	62563	See Attached Plugging Report
3	N/A	To Be Plugged
4	19413	See Attached Approved Well Buffer Exception
5	19412	See Attached Approved Well Buffer Exception
6	19402	Maintain 150-ft buffer
7	19403	Maintain 150-ft buffer
8	72165	See Attached Plugging Report
9	19415	See Attached Approved Well Buffer Exception
10	19416	Maintain 150-ft buffer

Note: A copy of the well logs for onsite wells are attached.

No public water supply wells are located within 500 feet of the property boundary. All offsite wells within the required buffer distances required by this authorization are shown (on the Site Map) with their appropriate buffers. Wells outside the required buffer distances are shown for reference only.

All irrigation systems or water distribution systems into which any type of chemical or foreign substance, such as wastewater, is distributed into the water pumped from the well are required by 16 TAC §76 to install an in-line, automatic quick-closing check valve capable of preventing pollution of groundwater.



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- USGS. Groundwater Atlas of the United States. Oklahoma and Texas. HA\_730E. http://capp.water.usgs.gov/gwa/ch\_e/E\_text8.html, March 2003.

### **Supporting Documentation**

USDA Soil Descriptions & Limitations

Texas Railroad Commission Map

Water District Well Location Map (if available)

Onsite Well Logs (if available)

### Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained by returning crop residue to the soil.

Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

*Erosion factor Kw* indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

*Erosion factor Kf* indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

### Reference:

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov)

# Report—Physical Soil Properties

					26								
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk	Saturated hydraulic	Available water	Linear extensibility	Organic matter	山华	<b>Erosion</b> factors	Wind erodibility	Wind erodibility
					density	conductivity	сарасиу			Κw	¥.	group	Index
	u <sub>l</sub>	Pct	Pct	Pct	g/cc	micro m/sec	nl/nl	Pct	Pct				
HoA—Slidell clay, 0 to 1 percent slopes													
Slidell	0-25	0-22-35	20-28-40	20-28-40 40-50-60 1.10-1.45 0.01-0.42	1.10-1.45	0.01-0.42	0.10-0.18	7.0-16.0	1.0-4.0	17	.17 5	4	86
	25-41	0-22-35	20-28-60	40-50-60	1.10-1.45	0.01-0.42	0.10-0.18	6.6-17.0	1.0-3.0	.24	.24		
	41-62	0-22-35	20-28-60	40-50-60	1.20-1.55	0.01-0.42	0.10-0.18	4.9-13.0	0.1-1.0	.24	.24		
	62-80	0-22-35	20-28-60	20-28-60   40-50-60   1.20-1.55   0.01-0.42	1.20-1.55	0.01-0.42	0.10-0.18	4.9-10.8	0.1-1.0	.24	24		
HoB—Slidell clay, 1 to 3 percent slopes													
Slidell	0-19	0-22-35	20-28-40	40-50-60	1.10-1.45	0.01-0.42	0.10-0.18	7.0-16.0	1.0-4.0	17	17 5	4	86
	19-32	0-22-35	20-28-60	40-50-60 1.10-1.45	1.10-1.45	0.01-0.42	0.10-0.18	6.6-17.0	1.0-3.0	.24	.24		
	32-49	0-22-35	20-28-60	20-28- 60   40-50- 60	1.20-1.55	0.01-0.42	0.10-0.18	4.9-13.0	0.1-1.0	.24	.24		
	49-80	0-22-35	20-28-60	40-50-60	1.20-1.55	0.01-0.42	0.10-0.18	4.9-10.8	0.1-1.0	.24	.24		
Ma—Maloterre gravelly clay loam, 1 to 8 percent slopes													
Maloterre	0-5	20-31-45		20-35-45 30-34-40	1.37-1.39	4.00-14.00	0.14-0.16	2.6-5.6	0.5-1.0	.15	.28 1	വ	56
	5-20	Í	1	ſ	1	0.42-14.00	Į.	ı	£				



					Physic	Physical Soil Properties-Erath County, Texas	es-Erath Cou	nty, Texas						
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk	Saturated hydraulic	Available water	Linear extensibility	Organic matter	П 42	Erosion factors	_	Wind erodibility	Wind erodibility
					density	conductivity	capacity			×	<b>₹</b>	<b>-</b>	group	index
	п	Pat	Pct	Pct	g/cc	micro m/sec	In/In	Pct	Pct					
PcB—Purves clay, 1 to 3 percent slopes														
Purves	8-0	8-25-40	7-28-40		40-48-55 1.15-1.45 0.42-1.40	0.42-1.40	0.12-0.20	5.4-10.9	1.0-5.0	01.	.10	4		98
	8-12	8-26-40	20-29-54	20-29- 54 35-45- 55	1.20-1.45 0.42-4.00	0.42-4.00	0.08-0.18	5.0-10.3	1.0-4.0	15	.15			
	12-14	8-26-40	20-29-54	20-29-54 35-45-55	1.20-1.45 0.42-4.00	0.42-4.00	0.04-0.07	1.0-6.9	1.0-3.0	.05	.17			
	14-40	1	j	1	1	0.42-14.00	1	1	j					
PcC—Purves clay, 3 to 5 percent slopes														
Purves	2-0	8-25-40	8-25-40 7-28-40	40-48-55	40-48-55 1.15-1.45 0.42-1.40	0.42-1.40	0.12-0.20	5.4-10.9	1.0-5.0	15	.15	4		86
	7-12	8-26-40	8-26-40 20-29-54	35-45-55	1.20-1.45 0.42-4.00	0.42-4.00	0.08-0.18	5.0-10.3	1.0-4.0	17	117			
	12-17	8-26-40	20-29- 54	35-45-55	1.20-1.45 0.42-4.00	0.42-4.00	0.04-0.07	1.0-6.9	1.0-3.0	.05	117			
	17-40		Ĩ	Ī	1	0.42-14.00	ı	Ţ	I					



					Physi	Physical Soil Properties-Erath County, Texas	es-Erath Cou	nty, Texas					
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk	Saturated hydraulic	Available water	Linear extensibility	Organic matter	ПФ	Erosion factors	Wind	Wind
					density	conductivity	capacity			Š	茎	group	index
	III	Pct	Pct	Pct	g/cc	micro m/sec	In/In	Pct	Pct				
Pd—Purves- Dugout- Maloterre complex, 1 to 20 percent slopes													
Purves, stony clay	8-0	8-25-40 7-28-40		40-48-55 1.16-1.35 0.42-1.40	1.16-1.35	0.42-1.40	0.11-0.20	4.1-9.3	1.0-5.0	.05	10 1	ιΩ	56
	8-12	8-26-40	20-29-54	35-45-55	1.17-1.47 0.42-4.00	0.42-4.00	0.08-0.18	2.9-10.8	1.0-4.0	15	.15		
	12-14	8-26-40	20-29-54	35-45-55	35-45-55 : 1.21-1.47   0.42-4.00	0.42-4.00	0.04-0.07	1.0-7.3	1.0-3.0	.05	.17		
	14-24	ĵ	I	1	1	0.42-14.00	1	Į	Ĩ				
Dugout, gravelly clay loam	8-0	22-30-42	28-42-51	22-30-42 28-42-51 27-28-35 1.31-1.47 1.40-4.00	1.31-1.47	1.40-4.00	0.06-0.15	1.9-5.4	1.0-2.0	75	.28	ى	26
	8-18	20-23-40	28-48-60	15-29-35	1.40-1.53	1.40-4.00	0.07-0.16	0.0-4.9	0.1-1.2	.28	.28		
	18-28	1	1	1	1	0.42-14.00	1	1	1				
Maloterre, gravelly clay loam	8-0	30-35-45	24-36- 43	30-35-45 24-36-43 27-29-35 1.18-1.40 4.00-14.00	1.18-1.40	4.00-14.00	0.06-0.11	1.8-6.0	1.0-7.0	15	1 24	rc.	26
	8-18	1	ŭ	ı	1	0.01-0.42	1	j	ĵ				

## Data Source Information

Soil Survey Area: Erath County, Texas Survey Area Data: Version 21, Aug 30, 2024



### **Physical Soil Properties**

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Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

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*Erosion factor Kw* indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

### Reference:

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov)

# Report—Physical Soil Properties

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk	Saturated hydraulic	Available water	Linear	Organic matter		Erosion factors	Wind	Wind
					density	conductivity	capacity			¥	*	group	index
	ų	Pct	Pct	Pct	g/cc	micro m/sec	ın/In	Pct	Pct				
HoB—Slidell clay, 1 to 3 percent slopes													
Slidell	0-19	0-22-35	20-28-40	20-28-40 40-50-60 1.10-1.45 0.01-0.42	1.10-1.45	0.01-0.42	0.10-0.18	7.0-16.0	1.0-4.0	.17	.17 5	4	86
	19-32	0-22-35	20-28-60	40-50-60	40-50-60 1.10-1.45	0.01-0.42	0.10-0.18	6.6-17.0	1.0-3.0	.24	.24		
	32-49	0-22-35	20-28-60	40-50-60	40-50-60 1.20-1.55	0.01-0.42	0.10-0.18	4.9-13.0	0.1-1.0	.24	.24		
	49-80	0-22-35	20-28-60	20-28-60 40-50-60 1.20-1.55	1.20-1.55	0.01-0.42	0.10-0.18	4.9-10.8	0.1-1.0	.24	.24		
Ma—Maloterre gravelly clay loam, 1 to 8 percent slopes													
Maloterre	0-5	20-31-45	20-31-45 20-35-45 30-34-40 1.37-1.39 4.00-14.00	30-34-40	1.37-1.39	4.00-14.00	0.14-0.16	2.6-5.6	0.5-1.0	.15	28 1	5	56
	5-20	1	1	1	1	0.42-14.00	1	1	1				
PcB—Purves clay, 1 to 3 percent slopes													
Purves	8-0	8-25-40	7-28-40	40-48-55	1.15-1.45	0.42-1.40	0.12-0.20	5.4-10.9	1.0-5.0	10	10 1	4	86
	8-12	8-26-40	20-29-54	35-45-55	1.20-1.45	0.42-4.00	0.08-0.18	5.0-10.3	1.0-4.0	.15	15		
	12-14	8-26-40	20-29-54	20-29- 54   35-45- 55	1.20-1.45	0.42-4.00	0.04-0.07	1.0-6.9	1.0-3.0	.05	11.		
	14-40	1	Î	1	1	0 42-14 00	ļ	ļ					

## Data Source Information

Soil Survey Area: Erath County, Texas Survey Area Data: Version 21, Aug 30, 2024 3/26/2025 Page 5 of 5

### **RUSLE2 Related Attributes**

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factor Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic layer.

### Report—RUSLE2 Related Attributes

Soil properties and interpretations for erosion runoff calculations. The surface mineral horizon properties are displayed or the first mineral horizon below an organic surface horizon. Organic horizons are not displayed.

	RUS	LE2 Rela	ted Attributes-Erath	County,	Texas			
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Repre	sentative	value
	map unit	length (ft)				% Sand	% Silt	% Clay
HoA—Slidell clay, 0 to 1 percent slopes								
Slidelf	85	98	D	.17	5	22.0	28.0	50.0
HoB—Slidell clay, 1 to 3 percent slopes								
Slidell	85	298	D	.17	5	22,0	28.0	50.0
Ma—Maloterre gravelly clay loam, 1 to 8 percent slopes								
Maloterre	80	161	D	.28	1	31.0	35.0	34.0
PcB—Purves clay, 1 to 3 percent slopes								
Purves	89	298	D	.10	1	25.0	27.5	47.5
PcC—Purves clay, 3 to 5 percent slopes								
Purves	89	180	D	.15	1	25.0	27.5	47.5
Pd—Purves-Dugout-Maloterre complex, 1 to 20 percent slopes								
Purves, stony clay	37	200	D	.10	1	25.0	27.5	47.5
Dugout, gravelly clay loam	25	161	D	.28	1	30.0	42.0	28.0
Maloterre, gravelly clay loam	22	180	D	.24	1	35.0	36.0	29.0

### **Data Source Information**

Soil Survey Area: Erath County, Texas Survey Area Data: Version 21, Aug 30, 2024

### **RUSLE2 Related Attributes**

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factor Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic layer.

### Report—RUSLE2 Related Attributes

Soil properties and interpretations for erosion runoff calculations. The surface mineral horizon properties are displayed or the first mineral horizon below an organic surface horizon. Organic horizons are not displayed.

	RUS	SLE2 Rela	ted Attributes–Erath	County,	Texas			
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Repre	sentative	value
	map unit	length (ft)				% Sand	% Silt	% Clay
HoB—Slidell clay, 1 to 3 percent slopes								
Slidell	85	298	D	.17	5	22.0	28.0	50.0
Ma—Maloterre gravelly clay loam, 1 to 8 percent slopes								
Maloterre	80	161	D	.28	1	31.0	35.0	34.0
PcB—Purves clay, 1 to 3 percent slopes								
Purves	89	298	D	.10	1	25.0	27.5	47.5

### **Data Source Information**

Soil Survey Area: Erath County, Texas Survey Area Data: Version 21, Aug 30, 2024

### **Selected Soil Interpretations**

This report allows the customer to produce a report showing the results of the soil interpretation(s) of his or her choice. It is useful when a standard report that displays the results of the selected interpretation(s) is not available.

When customers select this report, they are presented with a list of interpretations with results for the selected map units. The customer may select up to three interpretations to be presented in table format.

For a description of the particular interpretations and their criteria, use the "Selected Survey Area Interpretation Descriptions" report.

### Report—Selected Soil Interpretations

Map symbol and soil name	Pct. of	AWM - Irrigation Disp Wastewater	osal of	AWM - Land Applicat Municipal Sewage S		ENG - Sewage Lago	oons
	map unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HoA—Slidell clay, 0 to 1 percent slopes							
Slidell	85	Very limited		Very limited		Not limited	
		Slow water movement	1.00	Slow water movement	1.00		
HoB—Slidell clay, 1 to 3 percent slopes							
Slidell	85	Very limited		Very limited		Not limited	
		Slow water movement	1.00	Slow water movement	1.00	3	
Ma—Maloterre gravelly clay loam, 1 to 8 percent slopes							
Maloterre	80	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Droughty	1.00	Droughty	1.00	Slope	0.68
		Seepage, porous bedrock	0.50			Seepage	0.21
		Too steep for surface application	0.32				
PcB—Purves clay, 1 to 3 percent slopes							
Purves	89	Very limited		Very limited		Very limited	
		Droughty	1.00	Droughty	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00		
		Slow water movement	1.00	Slow water movement	1.00		
		Seepage, porous bedrock	0.50				

	n :			ons-Erath County, Tex			
Map symbol and soil name	Pct. of	AWM - Irrigation Disp Wastewater	osal of	AWM - Land Applicate Municipal Sewage S		ENG - Sewage Lag	oons
	map unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PcC—Purves clay, 3 to 5 percent slopes							
Purves	89	Very limited		Very limited		Very limited	
		Droughty	1.00	Droughty	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	0.32
		Slow water movement	1.00	Slow water movement	1.00		
		Seepage, porous bedrock	<mark>0.50</mark>				
		Too steep for surface application	0.08				
Pd—Purves-Dugout- Maloterre complex, 1 to 20 percent slopes							
Purves, stony clay	37	Very limited		Very limited		Very limited	
		Droughty	1.00	Droughty	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	0.08
		Slow water movement	1.00	Slow water movement	1.00		
		Large stones on the surface	1.00	Large stones on the surface	1.00		
		Seepage, porous bedrock	0.50				
Dugout, gravelly clay loam	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Droughty	1.00	Droughty	1.00	Slope	0.68
		Seepage, porous bedrock	0.50	Slow water movement	0.37	Seepage	0.21
		Slow water movement	0.37				
		Too steep for surface application	0.32				
Maloterre, gravelly clay loam	22	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	0.32
		Dr <mark>oughty</mark>	1.00	Droughty	1.00		
		Seepage, porous bedrock	0.50				
		Too steep for surface application	0.08				

### **Data Source Information**

Soil Survey Area: Erath County, Texas Survey Area Data: Version 21, Aug 30, 2024

### **Selected Soil Interpretations**

This report allows the customer to produce a report showing the results of the soil interpretation(s) of his or her choice. It is useful when a standard report that displays the results of the selected interpretation(s) is not available.

When customers select this report, they are presented with a list of interpretations with results for the selected map units. The customer may select up to three interpretations to be presented in table format.

For a description of the particular interpretations and their criteria, use the "Selected Survey Area Interpretation Descriptions" report.

### **Report—Selected Soil Interpretations**

		Selected Soil Into	erpretati	ions–Erath County, Tex	as		
Map symbol and soil name	Pct. of	AWM - Irrigation Disp Wastewater	osal of	AWM - Land Applicat Municipal Sewage S		ENG - Sewage Lag	oons
	map unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HoB—Slidell clay, 1 to 3 percent slopes							
Slidell	85	Very limited		Very limited		Not limited	
		Slow water movement	1.00	Slow water movement	1.00		
Ma—Maloterre gravelly clay loam, 1 to 8 percent slopes							
Maloterre	80	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Droughty	1.00	Droughty	1.00	Slope	0.68
		Seepage, porous bedrock	0.50			Seepage	0.21
		Too steep for surface application	0.32				
PcB—Purves clay, 1 to 3 percent slopes							
Purves	89	Very limited		Very limited		Very limited	
		Droughty	1.00	Droughty	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00		
		Slow water movement	1.00	Slow water movement	1.00	= =	
		Seepage, porous bedrock	0.50				

### **Data Source Information**

Soil Survey Area: Erath County, Texas Survey Area Data: Version 21, Aug 30, 2024

- (ii) wells used exclusively for private water supply 150 feet; or (iii) wells used exclusively for agriculture irrigation 100 feet.
- (2) Irrigation of wastewater directly over a well head will require a structure protective of the wellhead that will prevent contact from irrigated wastewater.
- (3) Construction of any new water wells must be done by a licensed water well driller.
- (4) All abandoned and unuseable wells shall be plugged according to 16 TAC §76.104.
- (5) The permittee may continue the operation and use of any existing holding pens and RCSs located within the required well buffer zones provided they are in accordance with the facility's approved recharge feature evaluation and certification. Buffer zone variance documentation must be kept on-site and made available to TCEQ personnel upon request. A Well Buffer Exception request for Well #4, #5 and #9 was submitted to and approved by the TCEQ Water Quality Assessment Team. Table 3 below shows the status of all wells on the facility and the best management practices (BMPs) used to protect them.

Table 3: Well Status and Best Management Practices

Well Number*	Status	BMPs
1	Producing	Maintain 150 ft buffer
2	Non-Producing	Plugged
3	Producing	Maintain 150 ft buffer
4	Producing	Surface slab and RCS spillway located downgradient of well
5	Producing	Enclosed in a covered concrete vault and located up-gradient of pen areas
6	Producing	Maintain 150 ft buffer
7	Producing	Maintain 150 ft buffer
8	Non-Producing	Plugged
9	Producing	A concrete slab, no irrigation over wellhead and a protective cover is installed
10	Producing	Maintain 150 ft buffer
11	Producing	Maintain 150 ft buffer
12	Producing	Maintain 150 ft buffer
13	Producing	Maintain 150 ft buffer
14	Producing	Maintain 150 ft buffer
15	Producing	Maintain 150 ft buffer
16	Producing	Maintain 150 ft buffer
17	Producing	Maintain 150 ft buffer
18	Producing	Maintain 150 ft buffer

<sup>\*</sup>Well Numbers correspond with Attachment D

Mark R. Vickery, P.G., Expositive Diffector Carios Rubinstein, Commissioner Buddy Garera, Commissioner



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

May 31, 2011

42 7108 SEPE EELS 8017 CP Protecting Texas by Reducing and Preventing Pollution

### CERTIFIED MATE

Mr. Randy Wyly Wyw Dairy +1

2502 County Road 209 Hico, Texas 76457

Well Buffer Exception Request, Whyly #1, Permit Number WQooog160000 (CN 601115213; RN 102055150) Rei

### Dear Mr. Wyly:

The Water Quality Assessment (WQA) Team has reviewed the well buffer exception request for one well identified as Well #9 in a letter dated May \$2, 2011. The letter was signed and certified by Mr. Norman Mullie, P.E., of Environ-Ag Engineering, Inc, and requested an exception to the 150-bot buffer requirement for this externs well. Additional protective measures for Well #9 included a concrete sixth, no irrigation of waste over the wellhead and a protective cover is installed.

The WQA Team conditionally approves the well butfur exception request for well \$49 upon repairing apparent except in the sturies exacts. Within 90 days of the date of this letter, pienes submit photographs clearly showing the repair area beam rade or any other appropriate documentation to the WQA Team (at MC-350) or via ental to WQA Team Lander Lynda (Layton, at lynda, addynon@loog.texas.gov for inclusion in the Team Commission on Revironmental Quality (TCEQ) permit file.

inspections shall be conducted regularly for the well using a developed inspection checkinst.
This approval letter and all supporting documentation must be kept on-site and made available to TCEQ presonnel upon request. If you have any questions, please contact me by phone at (\$12) 239-0171 or e-mail at james, moortifications, say.

Sincerely,

John D. M. Mude James M. Moore, P. E., Manager Weter Quality Erwision

Mr. Norman Mullin, P.E., Enviro-Ag Engineering, Inc., 3404 Airway Boulevard, Amarillo, Texas 79118

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • www.teeq.lexas.gor

How is all cletonarservice? www.terplexamgov/goto/cuercare



## RECHARGE FRATURE PROTECTIVE MEASURES Water Well Buffer Distance Variance Request Wyly #1 Dairy (WQ Permit No. 3160)

The Recharge Feature Certification provided by Enviro-Ag Engineering, Inc. (EAE) identified an additional water well located on the property which do not meet the specified well buffer distance of 100 feet (Refer to Figure 5.3) to land application. wells to be considered for variance to the required buffer distance include: Located next to LMU #4. BMPs include surface slab and no irrigation of waste over the wellhead. There is a protective cover installed. Well #9

Weilhead protective measures (BMPs) currently in place for each of these wells(artificial reolarge features) are shown on the attached photographs. These protective measures, in lieu of the buffer distances currently in place at Wyly #1 Dairy, in my professional opinion, are protective of groundwater resources.

Submitted by:



Norman Mullin, P.E. No. 56107 Enviro-Ag Engineering, Inc. Firm No. F-2507 (See Attached Supporting Documentation)

3404 AIRWAY BLVD. • AMARILLO, TEXAS 79118 • TEL (806) 353-6123 • FAX (806) 353-4132

Well #2

STATE OF TEXAS PLUGGING REPORT for Tracking #62563

Owner:

Wyly, Randy

Owner Well #:

No Data

Address:

3502 CR 209

Grid #:

31-56-8

Well Location:

Hico, TX 76457

Latitude:

32° 09' 16" N

3502 CR 209 Hico, TX 76457

Longitude:

098° 04' 30" W

Well County:

**Erath** 

Elevation:

No Data

Well Type:

Withdrawal of Water

**Drilling Information** 

Company: No Data

Date Drilled:

No Data

Driller:

No Data

License Number:

No Data

Diameter (in.)

Top Depth (ft.)

Bottom Depth (ft.)

Borehole:

4

100

Plugging Information

Date Plugged: 2/13/2010

Plugger: Randy Wyly/Land Owner

Plug Method:

Tremmie pipe cement from bottom to top

Casing Left in Well:

Plug(s) Placed in Well:

Dla (in.)

Top (ft.)

Bottom (ft.)

Top (ft.)

Bottom (ft.)

Description (number of sacks & material)

4

2

100

0

100

26

Certification Data:

The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information:

**Landowner Plugged** 

3502 CR 209 Hico, TX 76457

**Driller Name:** 

Randy Wyly

License Number:

N/A

Comments:

Added information for question #12 (Well Owner performaing the plugging) on hard

copy of plugging report per isntructions from David Gunn WWD/PI Program

Manager.

**^EO** 

Well #A

STATE OF TEXAS PLUGGING REPORT for Tracking #72165

Owner:

Randy Wyly

Owner Well #:

No Data

Address:

3502 CR209

3502 CR209

Grid #:

31-56-8

Well Location:

Hico, TX 76457

Latitude:

32° 08' 52" N

Hico, TX 76457

Longitude:

098° 04' 17" W

Well County:

**Erath** 

Elevation:

No Data

Well Type:

Withdrawal of Water

**Drilling Information** 

Company: No Data

Date Drilled:

No Data

Driller:

No Data

License Number:

No Data

Diameter (in.)

Top Depth (ft.)

Bottom Depth (ft.)

Borehole:

4

Plugging Information

Date Plugged:

5/12/2011

Plugger: Thomas Lange

Plug Method:

Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth,

cement top 2 feet

Casing Left in Well:

Plug(s) Placed in Well:

Dla (in.)	Top (ft.)	Bottom (ft.)	Top (ft.)	Bottom (ft.)	Description (number of sacks & material)
4	2	70	0	2	1 Bag of Cement
			2	70	9 Bags of Bentonite

Certification Data:

The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information:

Dowell Water Well Service, Inc.

1491 W South Loop Stephenville, TX 76401

Driller Name:

Jarrell D Dowell Sr

License Number:

4187

Apprentice Name:

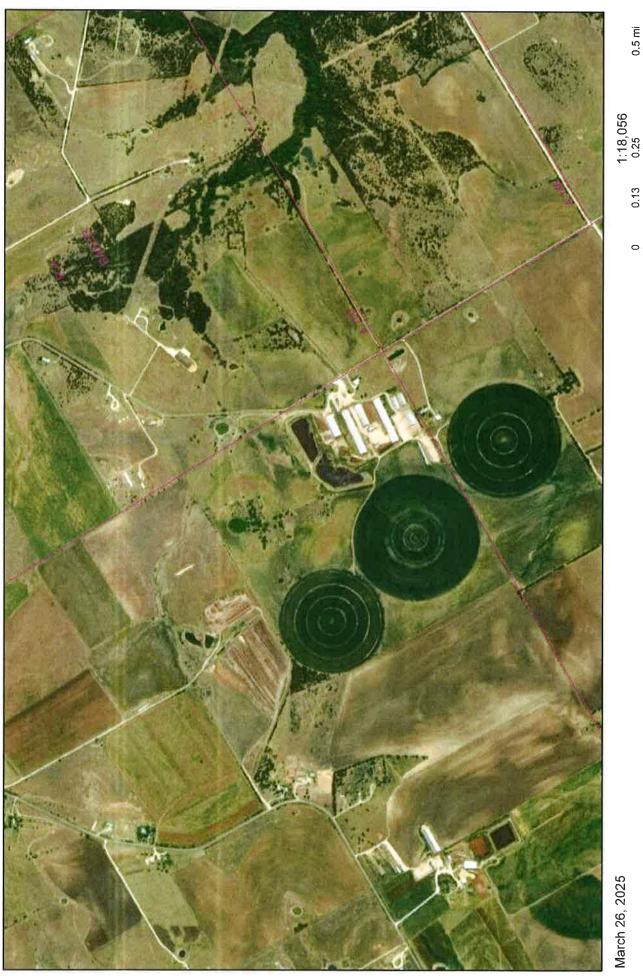
**Thomas Lange** 

Apprentice Number:

58524

Comments:

No Data



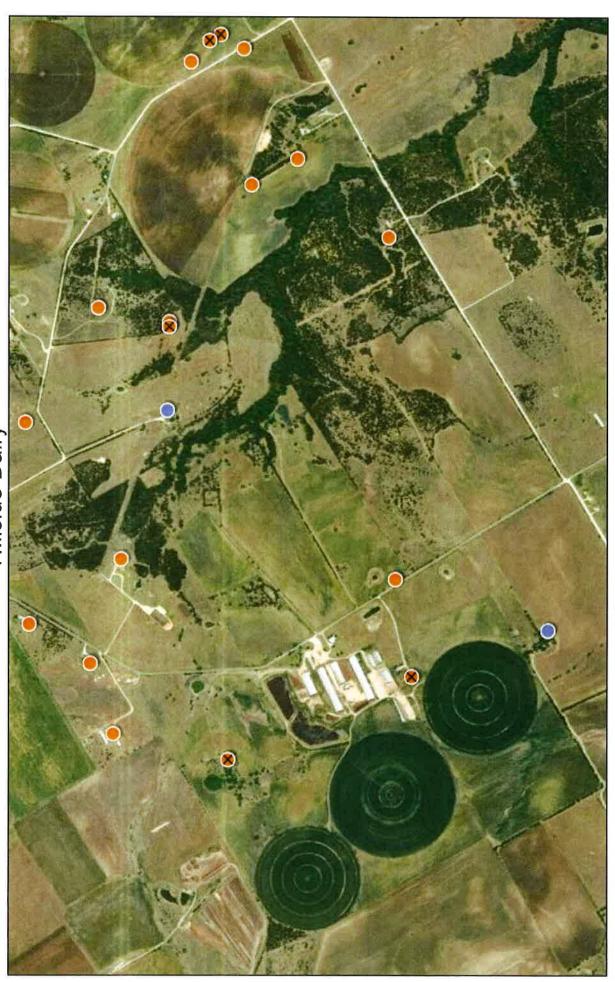
March 26, 2025

0.8 km

0.5 mi

0.13

Maxar



### Texas Water Development Board March 26, 2025

Plugging Reports Well Reports







Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

### 6.0 SURFACE WATER & TMDL ASSESSMENT

### 6.1 Surface Water Assessment

Figure 6.1, Aerial Photograph, shows the existing land features, production area, Land Management Unit boundaries, and areas designated as "water in the state," as defined by 30 TAC §321.32(63). Buffer zones between waters in the state and LMUs will be maintained as required in 30 TAC §321.40(h) plus additional filter strips specified by NRCS Code 393, as required in 30 TAC §321.42(w)(2). Based on NRCS Code 393, Appendix 3, Table 1, and LMU slope and soil types, the buffer zones shown in the attached map will be maintained. According to NRCS, Codes 601 (applied to severely eroded areas) and 332 (applied to cropland) are not currently applicable to the LMUs at this facility. Should field conditions or cropping systems change, Codes 601 and 332 will be implemented as necessary.

The "water in the state" designation is based on Enviro-Ag Engineering, Inc., site inspections, the permittee's knowledge of the property and the USDA-FSA aerial photograph (2017). The buffer zones and LMU boundaries in Figure 6.1 are submitted with this application for TCEQ approval.

### 6.2 TMDL Assessment

Hillside Dairy is located in Segment No.1226, North Bosque River, Brazos River Basin, which is a 303(d)-listed watershed. To demonstrate that Hillside Dairy is designed and will be constructed and operated in a manner that is consistent with the Phosphorus Total Maximum Daily Load (TMDL) and Implementation Plan approved in 2001 and to address the other listed impairments for this segment, the following practices have been or will be implemented:

- 1. Implement a Nutrient Utilization Plan that limits P application to crop requirement and incorporates a P reduction component on fields over 200 ppm P.
- 2. Limit maximum P level in soils to 200 ppm.
- 3. Perform annual soil sampling in accordance with the provisions of 30 TAC §321.42(k)-(m) and with Texas Cooperative Extension guidelines for composite sampling.
- 4. Implement a certified Comprehensive Nutrient Management Plan that meets the NRCS requirements for a whole-farm Resource Management System.
- 5. Maintain contracts with owners of third-party fields in accordance with 30 TAC §321.42(j)(1)-(4) and with applicable requirements of 30 TAC §321.36 and §321.40.
- 6. Operate the facility in accordance with 30 TAC §321.42 with additional Best Management Practices as follows:
  - a. Scrape freestalls and cattle lanes to reduce or eliminate the need for flushing.
  - b. Excluding extraneous drainage areas from the RCSs (roof areas, etc.)





LEGEND:

Denotes Plugged Water Well

Denotes Water WellDenotes Well w/Buffer

Denotes 130-ft Buffer

Denotes 136-ft Buffer

Denotes 142-ft Buffer

Denotes Fresh Water Pond

SCALE AS SHOWN

Source: USDA-NRCS. Geospatial Data Gateway. Available at:

<a href="http://datagateway.nrcs.usda.gov/">http://datagateway.nrcs.usda.gov/</a>. Digital Raster Graphic County Mosaic by NRCS - Accessed November 2017.

Refer to Figure 1.4 for an overall facility map.

Hillside Dairy Stephenville, Texas Erath County Aerial Photograph Figure 6.1 Page 34



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

### 7.0 AIR STANDARD PERMIT REQUIREMENTS

### 7.1 Permit Requirements

This facility was constructed prior to August 19, 1998. The facility meets the  $\frac{1}{4}$ -mile buffer option required in 30 TAC  $\frac{321.43(j)}{2}$  for facility expansion. The facility is designed, and will be operated, in accordance with the provisions and emissions limitations of the air standard permit in 30 TAC  $\frac{321.43(j)}{321.43(j)}$  regarding abatement of nuisance conditions, wastewater treatment, dust control and maintenance and housekeeping procedures. The facility uses an anaerobic treatment pond to minimize odors from process generated wastewater in accordance with  $\frac{321.43(j)}{3}$ .

An Area Land Use Map (Figure 7.1) is attached depicting the locations of all occupied residences or business structures, schools (including associated recreational areas), churches, or public parks within 1 mile of the permanent odor sources of the facility. The map includes a north arrow, direction of prevailing wind, and scale. For the purposes of this application, the measurement of buffer distances is from the nearest edge of the permanent odor source to the occupied structure or designated recreational area identified on the Area Land Use Map (30 TAC §321.32(43)).







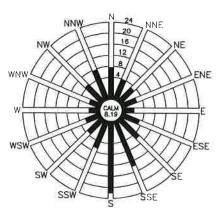
### Legend:

Denotes Occupied Structure

M Denotes Applicant Owned Structure

Site Visit - 3/24/2025Map Generated - 3/26/2025

Source: USDA-NRCS. Geospatial Data Gateway. Available at:
http://datagateway.nrcs.usda.gov/. Digital Raster Graphic
County Mosaic by NRCS - Accessed November 2017.



ANNUAL WIND ROSE LOCATION: STEPHENVILLE, TEXAS PERIOD OF RECORD: 1984 – 1992 SOURCE: TCEQ WINDROSE DATA

Note: Hatched area represents permanent odor sources. These include, but are not limited to, pens, confinement buildings, lagoons, RCSs, manure stockpile areas, separators. Permanent odor sources do not include any feed handling facilities, land application equipment or fields.

Hillside Dairy Stephenville, Texas Erath County Area Land Use Map Figure 7,1 Page 36



Enviro-Ag Engineering, Inc., ENGINEERING CONSULTANTS 3404 Airway Boulevard AMARILLO, TEXAS 79118 TEL (806) 353-6123 FAX (806) 353-4132

### **Abesha Michael**

From: Jourdan Mullin <jmullin@enviroag.com>
Sent: Wednesday, April 30, 2025 11:31 AM

To: Abesha Michael

**Cc:** Corey Mullin; Joy Alabi; Robert Chavez

**Subject:** RE: Application to Amend Permit No. WQ0003160000 - Notice of Deficiency Letter

Attachments: Hillside Dairy CAFO amend Spanish translation.docx; English NORI.docx

Follow Up Flag: Follow up Flag Status: Flagged

Good Wednesday Morning Abesha,

I wanted to follow up and see if you received my response showing the mistake in the NORI? Attached is the English and Spanish NORI with the correct address. Please respond and let me know you received this and that the mistake has been corrected.

### Respectfully,

### Jourdan Mullin

Enviro-Ag Engineering, Inc. 9855 FM 847 Dublin, TX 76446

254/965-3500 – Work 806/679-5570 - Mobile

From: Jourdan Mullin

Sent: Tuesday, April 29, 2025 10:26 AM

To: 'abesha.michael@tceq.texas.gov' <Abesha.Michael@tceq.texas.gov>

Cc: Corey Mullin <cmullin@enviroag.com>

Subject: RE: Application to Amend Permit No. WQ0003160000 - Notice of Deficiency Letter

Good afternoon Abesha,

I wanted to check and see if you have the revised NORI?

Thank you, Jourdan

From: Jourdan Mullin

Sent: Monday, April 28, 2025 10:02 AM

To: 'abesha.michael@tceq.texas.gov' < <u>Abesha.Michael@tceq.texas.gov</u>>

Cc: Corey Mullin <cmullin@enviroag.com>

Subject: RE: Application to Amend Permit No. WQ0003160000 - Notice of Deficiency Letter

Good Morning Abesha.

I found one mistake that need to be corrected in the NORI. I have highlighted the mistake and note of the correct address.

Thank you, Jourdan

From: Corey Mullin < <a href="mailto:cmullin@enviroag.com">cmullin@enviroag.com</a>>

Sent: Friday, April 25, 2025 6:06 PM

To: Jourdan Mullin < imullin@enviroag.com >

Subject: Fw: Application to Amend Permit No. WQ0003160000 - Notice of Deficiency Letter

Sent via the Samsung Galaxy S25+, an AT&T 5G smartphone Get Outlook for Android

From: Abesha Michael < Abesha. Michael@tceq.texas.gov >

**Sent:** Friday, April 25, 2025 6:04:07 PM **To:** Corey Mullin <cmullin@enviroag.com>

Subject: Application to Amend Permit No. WQ0003160000 - Notice of Deficiency Letter

CAUTION: This email originated from outside of Enviro-Ag Engineering. Do not click links or open attachments unless you have verified the sender and know the content is safe.

Dear Mr. Mullin:

The attached Notice of Deficiency letter sent on April 25, 2025, requests additional information needed to declare the application administratively complete. Please send the complete response to my attention by May 9, 2025.

Thank you,



Abesha H. Michael Applications Review & Processing Team Water Quality Division Support Section Water Quality Division, MC 148 PO Box 13087

Austin, Texas 78711 Phone: 0: 512-239-4912

Email: abesha.michael@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at <a href="https://www.tceq.texas.gov/customersurvey">www.tceq.texas.gov/customersurvey</a>

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APPLICATION. Hillside Dairy, LLC, 1865 Private Road 1233, Hico, Texas 76457, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Wastewater Permit No. WQ0003160000 (EPA I.D. No. TX0130893) for a Concentrated Animal Feeding Operation (CAFO) to authorize an increase in the Headcount from 3,000 all of which are milking to 4,500 and 4,000 are milking, reconfigure the drainage area, add Parlor #1, add Freestall Barns #3 & #5, expand RCS #2(for additional storage), add a sand lane, add Concrete Basin #1. remove Concrete Basins #2 & #3, remove the Commodity Area, remove the proposed Cross-Vent Barn, remove pen South of Freestall Barn #3, reconfigure pen South of Freestall Barn #1, remove Wells #11-#27 and Well #3 is to be plugged. Current LMUs #1, #2, #3, #3A and #4 are reconfigured to proposed LMUs #1, #2, #3, #3A, #4, #4A and #5. Remove current LMUs #5, #5A, #6, #8, #8A, #MRl, #MR2 and #220 from the property boundary. The facility is located at 3502 County Road 209, in the city of Hico, in Erath County, Texas 76457. TCEO received this application on April 24, 2025. The permit application will be available for viewing and copying at Erath County Extension Office - Erath County Courthouse, 100 Washington Street, Room 206, Stephenville, in Erath 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/cafoapplications. 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=98.072222,32.150555&level=18

Further information may also be obtained from Hillside Dairy, LLC at the address stated above or by calling Mr. Clemens Kuiper, Member, at 254-968-4018.

### Comisión de Calidad Ambiental del Estado de Texas



### AVISO DE RECEPCIÓN DE LA SOLICITUD Y LA INTENCIÓN DE OBTENER CALIDAD DEL AGUA PERMISO MODIFICACION

### PERMISO NO. WQooo3160000

SOLICITUD. Hillside Dairy, LLC, 1865 Private Road 1233, Hico, Texas 76457 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para la modificación de Permiso No. WQ0003160000 (EPA I.D. No. TX0130893) para una Operación Concentrada de Alimentación Animal (CAFO, por sus siglas en inglés) para autorizar un aumento en el conteo de cabezas de 3,000 de las cuales todas los cuales están ordeñando a 4,500 y 4,000 están ordeñando, reconfigurar el área de drenaje, agregar la Sala #1, agregar los Establos de Estabulación Libre #3 y #5, expandir el RCS #2 (para almacenamiento adicional), agregar un carril de arena, agregar un Depósito de Concreto #1. remover los Depósitos de Concreto #2 y #3, eliminar el área de comodidad, eliminar el establo propuesto con ventilación cruzada, eliminar el corral al sur de la estabulación libre #3, reconfigurar el corral al sur de la estabulación libre #1. Remover los pozos #11-#27 y el Pozo #3 debe ser tapado. Las LMU actuales #1, #2, #3, #3A y #4 se reconfiguran a las LMU propuestas #1, #2, #3, #3A, #4, #4A y #5. Remover las LMU actuales #5, #5A, #6, #8, #8A, #MRl, #MR2 y #220 del límite de la propiedad. La instalación está ubicada en 3502 County Road 209, en la ciudad de Hico, en el condado de Erath, Texas 76457. La TCEQ recibió esta solicitud el 24 de abril de 2025. La solicitud de permiso estará disponible para ver y copiar en la Oficina de Extensión del Condado de Erath - Tribunal del Condado de Erath, 100 Washington Street, Sala 206, Stephenville, en el Condado de Erath, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud, incluidas las actualizaciones y los avisos asociados, están disponibles electrónicamente en la siguiente página web:

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-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. <a href="https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.072222,32.150555&level=18">https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.072222,32.150555&level=18</a>

Include the following non-italicized sentence if the facility is located in the Coastal Management Program boundary and is an application for a major amendment which will increase the pollutant loads to coastal waters or would result in relocation of an outfall to a critical areas, or a renewal with such a major amendment. The Coastal Management Program boundary is the area along the Texas Coast of the Gulf of México as depicted on the map in 31 TAC §503.1 and includes part or all of the following counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange. If the application is for amendment that does not meet the above description, do not include the sentence: El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de

Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

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

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

### OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.

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

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

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

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

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

También se puede obtener información adicional del Hillside Dairy, LLC a la dirección indicada arriba o llamando al Sr. Clemens Kuiper, Socio, al 254-968-4018.

Fecha de emisión	ΓΙ	$\mathcal{D}_{\mathcal{C}}$	at	e	no	ot	ice	2 1	iss	ue	d	7
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### **SPANISH**

El siguiente resumen se proporciona para esta solicitud pendiente de permiso de calidad del agua que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo exige el Plan de Participación Pública y el Plan de Acceso Lingüístico de la TCEQ. La información provista en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud del permiso.

- 1) Nombre del solicitante: Hillside Dairy, LLC
- 2) Ingrese el número de cliente: CN604075390
- 3) Nombre de la instalación: Hillside Dairy
- 4) Ingresar Número de Entidad Regulada: RN102065166
- 5) Proporcione su número de permiso: WQ0003160000
- 6) Instalación Comercial: La instalación alberga 3,000 cabezas de ganado, todas ellas en ordeño. La instalación tiene quince (15) unidades de administración de tierras (LMU) con las siguientes superficies: LMU #1 50, LMU #2 34, LMU #3 16, LMU #3A 61, LMU #4 43, LMU #4A 56, LMU #5 26, LMU #5A 42, LMU #6 27, LMU #8 34, LMU #8A 7, LMU #E1 60, LMU #MR1 162, LMU #MR2 90 y LMU #220 64 acres. Dos (2) estructuras de control de retención (RCS) y un pozo de lodos. Las capacidades requeridas son: RCS #1 25.26 ac-ft y RCS #2 34.05 ac-ft. Hay veintisiete (27) pozos en el sitio, de los cuales tres (3) están taponados. La instalación está ubicada en el Río Bosque Norte en el Segmento No. 1226 de la Cuenca del Río Brazos.
- 7) Ubicación de la instalación: La instalación está ubicada en el lado oeste de County Road 209, aproximadamente a 1.5 millas al sur de la intersección de County Road 209 y US Highway 67, y aproximadamente a 7 millas al sureste de Stephenville en el condado de Erath, Texas.
- 8) Tipo de Solicitud: Enmienda Importante al Permiso Individual
- 9) Descripción de su solicitud: Hillside Dairy, LLC está presentando una solicitud de enmienda importante para aumentar la plantilla de 3,000 de las cuales todas están ordeñando a 4,500 y 4,000 ordeñando, reconfigurar el área de drenaje, agregar la Sala #1, agregar los Establos de Libre Acceso #3 y #5, expandir el RCS #2 (para almacenamiento adicional), agregar un carril de arena, agregar la Cuenca de Concreto #1, eliminar las Cuencas de Concreto #2 y #3, eliminar el Área de Productos Básicos, eliminar el Establo de Respiradero Cruzado propuesto, eliminar el corral al sur del Establo de Libre Acceso #3, reconfigurar el corral al sur del Establo de Libre Acceso #1, eliminar los Pozos #11-#27 y el Pozo #3 debe taparse. Las LMU #1, #2, #3, #3A y #4 actuales se reconfiguran a las propuestas LMU #1, #2, #3, #3A, #4, #4A y #5. Eliminar las LMU actuales #5, #5A, #6, #8, #8A, #MR1, #MR2 y #220 del límite de la propiedad.

- 10) Las posibles fuentes de contaminantes en la instalación incluyen (enumere las fuentes de contaminantes): Estiércol, reservas de estiércol, aguas residuales, lodos, purines, compost, piensos y camas, reservas de ensilaje, animales muertos, polvo, lubricantes, productos químicos de salón, pesticidas y tanques de almacenamiento de combustible.
- 11) Las siguientes mejores prácticas de manejo se implementarán en el sitio para manejar los contaminantes de las fuentes de contaminantes enumeradas (describa las mejores prácticas de manejo que se utilizan): las aguas pluviales se almacenan en la laguna (RCS) hasta que se aplican a la tierra mediante riego y estiércol y lodo se almacenan en el área de drenaje del RCS hasta que se aplican a la tierra o se transportan fuera del sitio para un uso beneficioso. El estiércol y los lodos generados por CAFO se conservarán y utilizarán de manera apropiada y beneficiosa de acuerdo con un plan certificado de manejo de nutrientes específico del sitio. Las aguas residuales estarán contenidas en el RCS adecuadamente diseñado ((frecuencia de 25 años y duración de 10 días (25 años/10 días), construido, operado y mantenido de acuerdo con lo dispuesto en el permiso. Mantener una zona de amortiguamiento de 100 pies para todos los pozos de riego o 150 pies para todos los pozos de suministro. Polvo - velocidad de control y mantenimiento regular del corral. Fertilizantes almacénelos bajo techo y manipúlelos de acuerdo con las instrucciones especificadas en la etiqueta. Tanques de combustible - proporcionan contención secundaria y evitan sobrellenados/derrames. Animales muertos - elimínelos a través de un servicio de procesamiento de terceros o entierre en el sitio. Recolectado dentro de las 24 horas posteriores a la muerte y eliminado dentro de los tres días.
- 12) A menos que se limite de otro modo, el estiércol, los lodos o las aguas residuales no se descargarán desde una unidad de administración de tierra (LMU) o una estructura de control de retención (RCS) hacia el agua en el estado o junto a ella desde una CAFO, excepto que resulte de cualquiera de las siguientes condiciones:
- 1) una descarga de estiércol, lodo o aguas residuales que el tenedor del permiso no puede prevenir o controlar razonablemente como resultado de una condición catastrófica que no sea un evento de lluvia;
- 2) desbordamiento de estiércol, lodo o aguas residuales de un RCS como resultado de un evento de lluvia crónica/catastrófica; o
- 3) una descarga de lluvia crónica/catastrófica de una LMU que ocurre porque el tenedor del permiso toma medidas para vaciar el RCS si el RCS está en peligro de desbordamiento inminente.



### TPDES Permit No. WQ0003160000 This Permit supersedes and replaces Permit No. WQ0003160000 issued on November 30, 2020 [For TCEQ use only EPA ID No. TX 0130893]

### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. Box 13087 Austin, Texas 78711-3087

### TPDES PERMIT FOR CONCENTRATED ANIMAL FEEDING OPERATIONS

under provisions of Section 402 of the Clean Water Act Chapter 26 of the Texas Water Code and Section 382.051 of the Texas Clean Air Act

### I. Permittee:

**A.** Owner: Hillside Dairy, LLC

**B.** Business Name: Hillside Dairy

C. Owner Address: 1865 Private Road 1233

Hico, Texas, 76457

II. Type of Permit: Major Amendment / Air & Water Quality

III. Nature of Business Producing Waste: Concentrated Animal Feeding

**Operation (CAFO)**: Dairy Cattle; SIC No. 0241

IV. General Description and Location of Waste Disposal System:

Maximum Capacity: 4,500 total head, of which 4,000 head are milking

Site Plan: See Attachment A

Retention Control Structures (RCSs) total required capacities without freeboard (Acre-Feet): RCS #1 - 21.46, RCS #2 - 30.28; RCS #1 and #2 act in-series.

Land Management Units (LMUs) (Acres): LMU #1 - 50, LMU #2 - 39, LMU #3 - 47, LMU #3A - 65, LMU #4 - 48, LMU #4A - 42, LMU #5 - 21, LMU E1 - 60; See Attachment B for locations

Terms of the Nutrient Management Plan (NMP): See Attachments E and F

Location: The facility is located at 3502 County Road 209, Hico, Erath County, Texas 76457. Latitude: 32.150555° N Longitude: 98.072222° W. See Attachment C

Drainage Basin: The facility is located in the drainage area of the North Bosque River in Segment No. 1226 of the Brazos River Basin

This permit contained herein shall expire at midnight, five years after the date of Commission approval.

SSUED DATE:	
	For the Commission

### V. Rule and Statute Applicability

- **A. Definitions.** All definitions in Chapter 26 of the Texas Water Code, 30 Texas Administrative Code (TAC) Chapters 305 and 321, Subchapter B shall apply to this permit and are incorporated by reference.
- B. Amendments, renewals, transfers, corrections, revocation, and suspension of permit. The requirements in 30 TAC Chapter 305, Subchapter D apply to this permit.

### VI. Permit Applicability and Coverage

- **A. Discharge Authorization**. No discharge is authorized by this permit except as allowed by the provisions in this permit and 40 Code of Federal Regulations Chapter 412, which is adopted by reference in 30 TAC Chapter 305.541.
- **B. Application Applicability**. 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.
- **C. Air Quality Authorization**. The permittee shall comply with the requirements listed in Section VII.D. of this permit and shall:
  - 1. maintain a minimum treatment capacity of 18.41 acre-feet in RCS #1;
  - 2. identify the maximum sludge volume and the minimum treatment volume on the permanent pond marker in RCS #1;
  - 3. maintain a copy of the odor control plan in the Pollution Prevention Plan; and
  - 4. include a stage storage table for the treatment pond in the RCS Management Plan.

### VII. Pollution Prevention Plan (PPP) Requirements

### A. Technical Requirements

- 1. PPP General Requirements.
  - (a) The permittee shall update and implement a PPP for this facility upon issuance of this permit. The PPP shall:
    - (1) be prepared in accordance with good engineering practices;
    - (2) include measures necessary to limit the discharge of pollutants to surface water in the state;
    - (3) describe and ensure the implementation of practices which are to be used to assure compliance with the limitations and conditions of this permit;
    - (4) include all information listed in Section VII.A.;
    - (5) identify specific individual(s) who is/are responsible for development, implementation, operation, maintenance, inspections, recordkeeping, and revision of the PPP. The activities and responsibilities of the pollution prevention personnel shall address all aspects of the facility's PPP;
    - (6) be signed by the permittee or other signatory authority in accordance with 30 TAC §305.44 (relating to Signatories to Applications); and
    - (7) be retained on-site.
  - (b) The permittee shall amend the PPP:
    - (1) before any change in the number or configuration of LMUs;
    - (2) before any increase in the maximum number of animals and/or the maximum number of milking cows;
    - (3) before operation of any new control facilities;
    - (4) before any change that has a significant effect on the potential for the discharge of pollutants to water in the state;

- (5) if the PPP is not effective in achieving the general objectives of controlling discharges of pollutants from the production area or LMUs; or
- (6) within 90 days following written notification from the Executive Director that the plan does not meet one or more of the minimum requirements of this permit.
- (c) Maps. The permittee shall maintain the following maps as part of the PPP.
  - (1) Site Map. The permittee shall update the site map as needed, by permit amendment, to reflect the layout of the facility. The map shall include, at a minimum, the following information: facility boundaries; pens; barns; berms; open lots; manure storage areas; areas used for composting; dead animal burial sites; RCSs or other control facilities; LMUs; water wells, abandoned and in use, which are on-site or within 500 feet of the facility boundary; and all springs, lakes, or ponds located on-site or within one mile of the facility boundary.
  - (2) Land Application Map. Natural Resource Conservation Service (NRCS) soil survey maps of all LMUs shall depict:
    - (i) the boundary of each LMU and acreage;
    - (ii) all buffer zones required by this permit; and
    - (iii) the unit name and symbol of all soils in the LMU(s).
- (d) Potential Pollutant Sources/Site Evaluation.
  - (1) Potential Pollutant Sources. The PPP shall include a description of potential pollutant sources and indicate all measures that will be used to prevent contamination from the pollutant sources. Potential pollutant sources include any activity or material that may reasonably be expected to add pollutants to surface water in the state from the facility.
  - (2) Soil Erosion. The PPP shall identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion. If these areas have the potential to contribute pollutants to surface water in the state, the PPP shall identify measures used to limit erosion and pollutant runoff.
  - (3) Control Facilities. The PPP shall include the location and a description of control facilities. The control facilities shall be appropriate for the identified sources of pollutants at the CAFO.
  - (4) Recharge Feature Certification. The recharge feature certification submitted in the permit application shall be implemented, updated by the permittee as often as necessary, and maintained in the PPP.
- (e) Spill Prevention and Recovery. The permittee shall take appropriate measures necessary to prevent spills and to clean up spills of any toxic pollutant. Where potential spills can occur, materials, handling procedures and storage shall be specified. The permittee shall identify the procedures for cleaning up spills and shall make available the necessary equipment to personnel to implement a clean up. The permittee shall store, use, and dispose of all pesticides in accordance with label instructions. There shall be no disposal of pesticides, solvents or heavy metals, or of spills or residues from storage or application equipment or containers, into RCSs. Incidental amounts of such substances entering a RCS as a result of stormwater transport of properly applied chemicals is not a violation of this permit.

- 2. Discharge Restrictions and Monitoring Requirements.
  - (a) Discharge Restrictions. Wastewater may be discharged to water in the state from a properly designed (25-year frequency 10-day duration (25 year/10 day)), constructed, operated and maintained RCS whenever chronic or catastrophic rainfall, or catastrophic conditions cause an overflow. There shall be no effluent limitations on discharges from RCSs which meet the above criteria.
  - (b) Monitoring Requirements. The permittee shall sample all discharges from the RCS(s) and LMU(s). The effluent shall be analyzed by a National Environmental Laboratory Accreditation Conference (NELAC) accredited lab for the parameters shown in Table 1.

**Table 1: Monitoring Requirements** 

Parameter	Sample Type	Sample Frequency
5 Day Biochemical Oxygen Demand (BOD <sub>5</sub> )	Grab	1/day¹
Escherichia coli	Grab	1/day¹
Total Dissolved Solids (TDS)	Grab	1/day¹
Total Suspended Solids (TSS)	Grab	1/day¹
Nitrate (N)	Grab	1/day¹
Total Phosphorus	Grab	1/day¹
Ammonia Nitrogen	Grab	1/day¹
Pesticides <sup>2</sup>	Grab	1/day¹

<sup>&</sup>lt;sup>1</sup>Sample shall be taken within the first thirty (30) minutes following the initial discharge and then once per day while discharging.

- (c) If the permittee is unable to collect samples due to climatic conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.), the permittee shall document why discharge samples could not be collected. Once dangerous conditions have passed, the permittee shall conduct the required sampling.
- 3. RCS Design and Construction.
  - (a) RCS Certifications
    - (1) The permittee shall ensure that the design and completed construction of the RCS(s) is certified by a licensed Texas Professional Engineer prior to use. The certification shall be signed and sealed in accordance with the Texas Board of Professional Engineers requirements.
    - (2) Documentation of liner and capacity certifications must be completed for each RCS prior to use and kept on-site in the PPP. Table 2 below shows the current RCS liner and capacity certifications.

<sup>&</sup>lt;sup>2</sup>Any pesticide which the permittee has reason to believe could be present in the wastewater.

Table 2: Current Liner and Capacity Certifications

RCS Name	Liner Certification Date	Capacity Certification Date	Certified Capacity (Acre-Feet)
RCS #1	October 29, 2007 November 20, 2015 – Liner Disturbance	December 21, 2010	27.95
RCS #2	December 21, 2010 November 13, 2019 – Liner Maintenance	December 21, 2010	44.05
Slurry Storage Pit	July 18, 2018	Not Applie	cable

- (b) Design and Construction Standards. The permittee shall ensure that each RCS is designed and constructed in accordance with the technical standards developed by the NRCS, American Society of Agricultural and Biological Engineers, American Society of Civil Engineers, or American Society of Testing Materials that are in effect at the time of construction. Where site-specific variations are warranted, a licensed Texas Professional Engineer must document these variations and their appropriateness to the design.
- (c) RCS Drainage Area.
  - (1) The permittee shall describe in the PPP and implement measures that will be used to minimize entry of uncontaminated stormwater into the RCS(s).
  - (2) Stormwater must be diverted, as indicated in Attachment A Site Map from contact with feedlots and holding pens, and manure and/or process wastewater storage systems. In cases where it is not feasible to divert stormwater from the production area, the retention structures shall include adequate storage capacity for the additional stormwater. Stormwater includes rain falling on the roofs of facilities, runoff from adjacent land, or other sources.
  - (3) The permittee shall maintain the drainage area to minimize ponding or puddling of water outside the RCS(s).
- (d) RCS Sizing.
  - (1) The design plan must include documentation describing the sources of information, assumptions and calculations used in determining the appropriate volume capacity and structural features of each RCS, including embankment and liners.
  - (2) Design Rainfall Event. Each RCS authorized under this permit shall be designed and constructed to meet or exceed the margin of safety, equivalent to the volume of runoff and direct precipitation from the 25 year/10 day rainfall event. The design rainfall event for this CAFO is 12.1 inches.
  - (3) Any RCS capacity that is greater than the minimum capacity required by this permit may be allocated to additional sludge storage volume, which will increase the design sludge cleanout interval for the RCS. The new sludge cleanout interval will be identified in the RCS management plan maintained in the PPP, the stage storage tables will accurately reflect the new volumes, and the pond markers will visually identify the new volume levels.

- (e) Irrigation Equipment Design. The permittee shall ensure that the irrigation system design is capable of removing wastewater from the RCS(s) on a regular schedule. Equipment capable of dewatering the RCS(s) shall be available and operational whenever needed to restore the operating capacity required by the RCS management plan.
- (f) Embankment Design and Construction. The RCS(s) have a depth of water impounded against the embankment at the spillway elevation of three feet or more, therefore the RCS(s) are considered to be designed with an embankment. The PPP shall include a description of the design specifications for the RCS embankments. The following design specifications are required for all new construction and/or the modified portions of existing RCSs.
  - (1) Soil Requirements. Soils used in the embankment shall be free of foreign material such as rocks larger than four (4) inches, trash, brush, and fallen trees.
  - (2) Embankment Lifts. The embankment shall be constructed in lifts or layers no more than eight (8) inches compacted to six (6) inches thick at a minimum compaction effort of 95 per cent (%) Standard Proctor Density (ASTM D698) at -1% to +3% of optimum moisture content.
  - (3) Stabilize Embankment Walls. All embankment walls shall be stabilized to prevent erosion or deterioration.
  - (4) Compaction Testing. Embankment construction must be accompanied by certified compaction tests including in place density and moisture in accordance with the American Society of Testing Materials (ASTM) D1556, D2167 or D2937 for density and D2216, D4643, D4944 or D4959 for moisture, or D6938 for moisture and density or equivalent testing standards. Compaction tests will provide support for the liner certification performed by a licensed Texas Professional Engineer as meeting a permeability no greater than 1 ×10-7 centimeters per second (cm/sec) over a thickness of 18 inches or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1 × 10-6 cm/sec with a water level at spillway depth.
  - (5) Spillway or Equivalent Protection. The new or modified RCS(s), which are constructed with embankments, shall be constructed with a spillway or other outflow device properly sized according to NRCS design and specifications to protect the integrity of the embankment.
  - (6) Embankment Protection. The new or modified RCS(s) must have a minimum of two (2) vertical feet of materials equivalent to those used at the time of design and construction between the top of the embankment and the structure's spillway. RCS(s) without spillways must have a minimum of two (2) vertical feet between the top of the embankment and the required storage capacity.
- (g) RCS Liner Requirements. For all new construction and for all structural modifications of existing RCS(s), the RCS must have a liner consistent with one of the following:
  - (1) In-situ Material. In-situ material is undisturbed, in-place, native soil material. In-situ materials must at least meet the minimum criteria for hydraulic conductivity and thickness and specific discharge as described in Section VII.A.3(g)(2) of this permit. Samples shall be collected and analyzed in accordance with Section VII.A.3(g)(3) of this permit. This

- documentation must be certified by a licensed Texas Professional Engineer or licensed Texas Professional Geoscientist.
- (2) Constructed or Installed Liner.
  - (i) Constructed or installed liners must be designed by a licensed Texas Professional Engineer. The liner must be constructed in accordance with the design and certified as such by a licensed Texas Professional Engineer. Compaction tests and post construction sampling and analyses, conducted in accordance with Sections VII.A.3(f)(4) and VII.A.3(g)(3) of this permit, will provide support for the liner certification.
  - (ii) Liners shall be designed and constructed to have hydraulic conductivities no greater than 1 × 10<sup>-7</sup> centimeters per second (cm/sec), with a thickness of 18 inches or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1 × 10<sup>-6</sup> cm/sec with a water level at spillway depth.
  - (iii) Constructed or installed liners must be designed and constructed to meet the soil requirements, lift requirements, and compaction testing requirements as listed in Section VII.A.3(f)(1), (2) and (4) of this permit.
- (3) Liner Sampling and Analyses
  - (i) The licensed Texas Professional Engineer or licensed Texas Professional Geoscientist shall use best professional practices to ensure that corings or other liner samples will be appropriately plugged with material that also meets liner requirements of this subsection.
  - (ii) Samples shall be collected in accordance with ASTM D1587 or other method approved by the Executive Director. For each RCS, a minimum of two core samples collected from the bottom of the RCS and a minimum of at least one core sample from each sidewall shall be collected. Additional samples may be necessary based on the best professional judgment of the licensed Professional Engineer. Distribution of the samples shall be representative of liner characteristics, and proportional to the surface area of the sidewalls and floor. Documentation shall be provided identifying the sample locations with respect to the RCS liner.
  - (iii) Undisturbed samples shall be analyzed for hydraulic conductivity in accordance with ASTM D5084 or other method approved by the Executive Director.
- (4) Leak Detection System. If notified by the Executive Director that significant potential exists for the adverse impact of water in the state or drinking water from leakage of a RCS, the permittee shall install a leak detection system or monitoring well(s) in accordance with that notice. Documentation of compliance with the notification must be kept with the PPP, as well as copies of all sampling data.
- 4. Special Considerations for Existing RCS(s). An existing RCS that has been properly maintained without any modifications and has no apparent structural problems or leakage is considered to be properly designed with respect to the embankment design and construction and liner requirements of this permit, provided that any required documentation was completed in accordance with the requirements at the

time of construction. If no documentation exists, the RCS must be certified by a licensed Texas Professional Engineer as providing protection equivalent to the requirements of this permit.

- 5. Operation and Maintenance of RCSs.
  - (a) The permittee must operate and maintain a margin of safety in the RCS(s) to contain the volume of runoff and direct precipitation from the 25 year/10 day rainfall event.
  - (b) The permittee shall implement a RCS management plan incorporating the margin of safety developed by a licensed Texas Professional Engineer. The management plan shall become a component of the PPP, shall be developed for each RCS, and must describe or include:
    - (1) RCS management controls appropriate for the CAFO and the methods and procedures for implementing such controls;
    - (2) the methods and procedures for proper operation and maintenance of each RCS consistent with the system design;
    - (3) the appropriateness and priorities of any controls reflecting the identified sources of pollutants at the facility;
    - (4) a stage/storage table for each RCS with minimum depth increments of one-foot, including the storage volume provided at each depth;
    - (5) a second table or sketch that includes increments of water level ranges for volumes of total design storage, including the storage volume provided at each specified depth (or water level) and the type of storage designated by that depth; and
    - (6) the planned end of month storage volume anticipated for each RCS for each month of the year and the corresponding operating depth expected at the end of each month of the year, based on the design assumptions.
  - (c) The wastewater level in the RCS shall be maintained at or below the maximum operating level expected during that month, according to the design of the RCS. When rainfall volumes exceed average rainfall data used in design calculations planned end of month storage volumes may encroach into the design storm event storage provided that documentation is available to support that the design parameters have been exceeded and that the RCS is otherwise being managed according to the RCS management plan criteria. In circumstances where the RCS has a water level exceeding the expected end of the month depth, the permittee shall document in the PPP why the level of water in the structure is not at or below the expected depth. Also, if the water level in the RCS encroaches into the storage volume reserved for the design rainfall event, the permittee must document, in the PPP, the conditions that resulted in this occurrence. As soon as irrigation is feasible and not prohibited by Section VII.A.8(f) and (g), the permittee shall irrigate until the RCS water level is at or below the maximum operating level expected during that month.
  - (d) Imminent Overflow. If a RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, the permittee shall take reasonable steps to irrigate wastewater to the LMU(s) only to the extent necessary to prevent overflow from the RCS. If irrigation results in a discharge from a LMU, the permittee shall collect samples from the drainage pathway at the point of the discharge from the edge of the LMU where the discharge occurs, analyze the samples for the parameters listed in Section VII.A.2.(b), and

- provide the appropriate notifications as required by Section VIII.B of this permit and 30 TAC §321.44.
- (e) Permanent Pond Marker. The permittee shall install and maintain a permanent pond marker (measuring device) in the RCS(s), visible from the top of the levee to show the following:
  - (1) the volume for the design rainfall event;
  - (2) one-foot increments beginning from the predetermined minimum treatment volume of the RCS, or the bottom of the RCS for those without treatment volume, to the top of the embankment or spillway; and
  - (3) design volume levels for maximum sludge accumulation and operating volume (calculated process generated wastewater plus rainfall runoff minus evaporation) must be identifiable on the marker.
- (f) Rain Gauge. A rain gauge capable of measuring the design rainfall event shall be kept on-site and properly maintained.
- (g) Sludge Removal. The permittee shall monitor sludge accumulation and depth, based upon the design sludge storage volume in the RCS. (See Special Provision X.E for additional requirements related to sludge monitoring.) Sludge shall be removed from the RCS(s) in accordance with the design schedule for cleanout in the RCS Management Plan to prevent the accumulation of sludge from exceeding the designed sludge volume of the structure. Removal of sludge shall be conducted during favorable wind conditions that carry odors away from nearby receptors. Sludge may only be beneficially utilized by land application to a LMU if in accordance with a nutrient management plan or disposed of in accordance with Section VII.A.8(e) of this permit. A sludge sample must be collected and analyzed in accordance with Section VII.A.9(a) prior to each clean out.
- (h) Liner Protection and Maintenance. The permittee shall maintain the liner to inhibit infiltration of wastewater. Liners must be protected from animals by fences or other protective devices. No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment. Any mechanical or structural damage to the liner shall be evaluated by a licensed Texas Professional Engineer within thirty (30) days of the damage.
- (i) Closure Requirements. A closure plan must be developed when a RCS will no longer be used and/or when the CAFO ceases or plans to cease operation. The closure plan shall be submitted to the appropriate regional office and the CAFO Permits Team of the Water Quality Division in Austin (MC-150) within ninety (90) days of when operation of the CAFO or the RCS terminates. The closure plan for the RCS must, at a minimum, be developed using standards contained in the NRCS Practice Standard Code 360 (Closures of Waste Impoundments), as amended, and using the guidelines contained in the Texas AgriLife Extension/ NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures), as amended. The permittee shall maintain or renew its existing authorization and maintain compliance with the requirements of this permit until the facility has been closed.
- 6. General Operating Requirements.
  - (a) Flush/Scrape Systems. Flush/scrape systems shall be flushed/scraped in accordance with design criteria in the application.

- (b) Pen Maintenance. The permittee shall maintain earthen pens to ensure good drainage, minimize ponding, and minimize the entrance of uncontaminated storm water to the RCSs.
- (c) Carcass Disposal. Carcasses shall be collected within twenty four (24) hours of death and properly disposed of within three days of death in accordance with Texas Water Code, Chapter 26; Texas Health and Safety Code, Chapter 361; and 30 TAC Chapter 335 (relating to Industrial Solid Waste and Municipal Hazardous Waste) unless otherwise provided for by the commission. Animals must not be disposed of in any liquid manure or process wastewater system. Disposal of diseased animals shall also be conducted in a manner that prevents a public health hazard in accordance with Texas Agriculture Code, §161.004, and 4 TAC §31.3, §58.31(b), and §59.12. The collection area for carcasses shall be addressed in the potential pollutant sources section of the PPP with the management practices to prevent contamination of surface or groundwater, control access, and minimize odor.
- (d) Manure and Sludge Storage
  - (1) Manure and sludge storage capacity requirements shall be based on manure and sludge production, land availability, and the NRCS Field Office Technical Guide (Part 651, Chapter 10) or equivalent standards. (See Special Provision X.I for the storage requirements applicable to slurry collected from freestall barns.)
  - (2) When manure is stockpiled, it shall be stored in a well-drained area, and the top and sides of stockpiles shall be adequately sloped to ensure proper drainage and prevent ponding of water. Runoff from manure or sludge storage piles must be retained on-site. If the manure or sludge areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff during the design rainfall event, the manure or sludge areas must be located within the drainage area of a RCS and accounted for in the design calculations of the RCS.
  - (3) Manure or sludge stored for more than thirty (30) days must be stored within the drainage area of a RCS or stored in a manner (i.e. storage shed, bermed area, tarp covered area, etc.) that otherwise prevents contaminated storm water runoff from leaving the storage area. All storage sites and structures located outside the drainage area shall be designated on the site map.
  - (4) Temporary storage of manure or sludge shall not exceed thirty (30) days and is allowed only in a LMU or a RCS drainage area. Temporary storage of manure and sludge near water courses or near recharge features may be allowed if protected by berms or other structures to prevent inundation or damage that may occur.
- (e) Composting. Composting on-site shall be performed in accordance with 30 TAC Chapter 332 (relating to Composting). The permittee may compost waste generated on-site, including manure, sludge, bedding, feed and dead animals. The permittee may add agricultural products to provide an additional carbon source or bulking agent to aid in the composting process. If the compost areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the compost areas must be located within the drainage of an RCS and

must be shown on the site plan and accounted for in the design calculations of the RCS.

- 7. Site Specific Conservation Practice.
  - (a) Well Protection Requirements
    - (1) The permittee shall not locate or operate a new RCS, holding pen, or LMU within the following buffer zones:
      - (i) public water supply wells 500 feet;
      - (ii) wells used exclusively for private water supply 150 feet; or
      - (iii) wells used exclusively for agriculture irrigation 100 feet.
    - (2) Irrigation of wastewater directly over a well head will require a structure protective of the wellhead that will prevent contact from irrigated wastewater.
    - (3) Construction of any new water wells must be done by a licensed water well driller.
    - (4) All abandoned and unuseable wells shall be plugged according to 16 TAC §76.104.
    - (5) The permittee may continue the operation and use of any existing holding pens and RCSs located within the required well buffer zones provided they are in accordance with the facility's approved recharge feature evaluation and certification. Buffer zone variance documentation must be kept onsite and made available to TCEQ personnel upon request. A Well Buffer Exception request for Well #4, Well #5 and Well #9 was submitted to and approved by the TCEQ Water Quality Assessment Team. Permittee shall implement the requirements of the Well Buffer Exception approval by TCEQ. Table 3 below shows the status of all wells on the facility and the best management practices (BMPs) used to protect them.

Table 3: Well Status and Best Management Practices

		Dest Management Fractices
Well Number*	Status	BMPs
1	Producing	Maintain 150 ft buffer
2	Non-Producing	Plugged
3	Non-Producing	To Be Plugged
4	Producing	Surface slab and RCS spillway located downgradient of well
5	Producing	Enclosed in a covered concrete vault and located upgradient of pen areas
6	Producing	Maintain 150 ft buffer
7	Producing	Maintain 150 ft buffer
8	Non-Producing	Plugged
9	Producing	A concrete slab, no irrigation over wellhead and a protective cover is installed
10	Producing	Maintain 150 ft buffer

\*Well Numbers correspond with Attachment D

(b) Soil Limitations. The permittee shall implement the BMPs on Table 4 for the specified soil series.

**Table 4: Soil Limitations and Best Management Practices** 

Soil Series	Potential	BMPs*
and Map ID	Limitations	
Purves: Pcc, PcB	Depth to Hard Bedrock Droughty Slow Water Movement	Land application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP.)
		No land application to inundated soils.
		Land application will be based upon the Available Water Holding Capacity (refer to NMP) of the soil and will not exceed agronomic rates for nutrients.
		Maintain cover crop in LMUs.
		Maintain soil moisture to promote crop growth.
Slidell: HoA, HoB	Slow Water Movement	Land application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP.)
		No land application to inundated soils.
Maloterre: Ma	Droughty Depth to Hard Bedrock	Land application not to exceed agronomic rates for nutrients and soil hydraulic rates
Purves-Dugout Complex: Pd	Droughty Depth to Bedrock Slow Water Movement	(refer to NMP.)  No land application to inundated soils.
	Large Stones	Maintain cover crop in LMUs.
		Maintain soil moisture to promote crop growth.

<sup>\*</sup>or an equivalent protective measure identified in an NRCS Practice Standard.

(c) Pollutant Sources and Management. The permittee shall implement the BMPs on Table 5 for handling dead animals and pesticides.

Table 5: Pollutant Sources and Best Management Practices

Potential Pollutant Source	BMPs*
Dead Animals	Collect within 24 hours of death and remove within three days of death by a third-party rendering service, or compost in accordance with Section VII.A.6(e) of this permit.
Pesticides/Parlor Chemicals	Store under roof Handle and dispose according to label directions

\*or an alternative BMP as allowed by 30 TAC 321 Subchapter B or an equivalent protective measure identified in an NRCS Practice Standard.

### 8. Land Application.

(a) Nutrient Management Plan (NMP) Required. The certified NMP submitted in the permit application shall be implemented upon issuance of this permit. The plan shall be updated as appropriate or at a minimum of annually according to

NRCS Practice Standard Code 590. The permittee shall make available to the Executive Director, upon request, a copy of the site specific NMP and documentation of the implementation.

- (1) For Terms of the NMP see Attachments E and F.
- (2) The following changes to the terms of the NMP are substantial:
  - (i) Increase in animal headcount;
  - (ii) Increase in LMU acreage or a change in LMU location;
  - (iii) Change in crop and yield goal (not listed in Attachment F);
- (3) Substantial and Non-Substantial Change to the terms of the NMP.
  - (i) Any changes (substantial or non-substantial) to the NMP, other than the Annual Recalculation of Application Rates outlined in Attachment E, must be submitted to the Executive Director for review, and may be subject to public comment;
  - (ii) If the Executive Director determines that the changes to the NMP are not substantial, the revised NMP will be made publicly available and included in the permit record; and
  - (iii) If the Executive Director determines that the changes to the NMP are substantial, the information provided by the permittee will be subject to a major amendment process as set in 30 TAC §§305.61-305.72.
- (b) Comprehensive Nutrient Management Plan (CNMP) required. The permittee must continue to operate under a CNMP certified by the Texas State Soil and Water Conservation Board.
- (c) Critical Phosphorus Level
  - (1) When results of the annual soil analysis show a phosphorus level in the soil of more than 200 ppm but not more than 500 ppm in Zone 1 depth (0-6 inch incorporated; 0-2 or 2-6 inch if not incorporated) for a particular LMU or if ordered by the commission to do so in order to protect the quality of water in the state, then the permittee shall:
    - (i) file with the Executive Director a new or amended nutrient utilization plan (NUP) with a phosphorus reduction component based on crop removal that is certified as acceptable by a person described in (3) below; or
    - (ii) show that the level is supported by a NUP that is certified as acceptable by a person described in (3) below.
  - (2) The permittee shall cease land application of compost, manure, sludge, slurry and wastewater to the affected area until the NUP has been approved by the TCEQ. After a NUP is approved, the permittee shall land apply in accordance with the NUP until soil phosphorus is reduced below the critical phosphorus level of 200 ppm extractable phosphorus. Thereafter, the permittee shall implement the requirements of the nutrient management plan.
  - (3) NUP. A NUP is a NMP, based on NRCS Practice Standard Code 590, which utilizes a crop removal application rate. The NUP, based on crop removal, must be developed and certified by one of the following individuals or entities:
    - (i) an employee of the NRCS;
    - (ii) a nutrient management specialist certified by the NRCS;
    - (iii) the Texas State Soil and Water Conservation Board;
    - (iv) the Texas AgriLife Extension;

- (v) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas; or
- (vi) a Certified Professional Agronomist certified by the American Society of Agronomy, a Certified Professional Soil Scientist certified by the Soil Science Society of America, or a licensed Texas Professional Geoscientist-soil scientist after approval by the Executive Director based on a determination by the Executive Director that another person or entity identified in this paragraph cannot develop the plan in a timely manner.
- (4) When results of the annual soil analysis for extractable phosphorus indicate a level greater than 500 ppm in Zone 1 depth (0-6 inch incorporated; 0-2 or 2-6 inch if not incorporated), the permittee shall file with the Executive Director a new or amended NUP with a phosphorus reduction component, based on crop removal, that is certified as acceptable by a person described in (3) above. After the new or amended NUP is approved, the permittee shall land apply in accordance with the NUP until soil phosphorus is reduced below 500 ppm extractable phosphorus.
- (5) If the permittee is required to have a NUP with a phosphorus reduction component based on crop removal, and if the results of tests performed on composite soil samples collected 12 months or more after the plan is filed do not show a reduction in phosphorus concentration in Zone 1 depth (0-6 inch incorporated; 0-2 or 2-6 inch if not incorporated), then the permittee is subject to enforcement action at the discretion of the Executive Director.
- (d) Buffer Requirements. The permittee shall meet the following buffer requirements for each LMU:
  - (1) Water in the State. The permittee shall not apply compost, manure, sludge, slurry and wastewater within the buffer distances as noted on Attachment B and Special Provision X.D. Vegetative buffers shall be maintained in accordance with NRCS Field Office Technical Guidance. The permittee shall maintain the filter strip (according to NRCS Code 393) between the vegetative buffer and the land application area. If the land application area is cropland, the permittee shall install and maintain contour buffer strips (according to NRCS Code 332) within the land application area in addition to the buffer distances required by this permit.
  - (2) Water Wells. The permittee shall comply with the well protection requirements listed in Section VII.A.7.(a).
- (e) Exported wastewater, sludge, and/or manure. Wastewater, sludge, and/or manure removed from the operation shall be disposed of by:
  - (1) delivery to a composting facility authorized by the Executive Director;
  - (2) delivery to a permitted landfill located outside of the major sole source impairment zone;
  - (3) beneficial use by land application to land located outside of the major sole source impairment zone;
  - (4) put to another beneficial use approved by the Executive Director; or
  - (5) providing wastewater, sludge, and/or manure to operators of third-party fields, i.e. areas of land in the major sole source impairment zone not

owned, operated, controlled, rented, or leased by the CAFO owner or operator, that have been identified in the PPP.

- (i) There must be a written contract between the permittee and the recipient that includes, but is not limited to, the following provisions:
  - (A) All transferred wastewater, sludge, and/or manure shall be beneficially applied to third-party fields identified in the PPP in accordance with the applicable requirements in 30 TAC §321.36 and §321.40 at an agronomic rate based on soil test phosphorus. The requirements for development or implementation of a nutrient management plan or nutrient utilization plan, under 30 TAC §321.40, do not apply to third-party fields.
  - (B) Manure and sludge must be incorporated on cultivated fields within forty-eight (48) hours after land application.
  - (C) Land application rates shall not exceed the crop nitrogen requirement when the soil phosphorus concentration in Zone 1 depth (o-6 inch if incorporated; o-2 or 2-6 inch if not incorporated) is less than or equal to 50 ppm phosphorus.
  - (D) Land application rates shall not exceed two times the phosphorus crop removal rate, and not to exceed the crop nitrogen requirement, when soil phosphorus concentration in Zone 1 depth (0-6 inch if incorporated; 0-2 or 2-6 inch if not incorporated) is greater than 50 ppm phosphorus and less than or equal to 150 ppm phosphorus.
  - (E) Land application rates shall not exceed one times the phosphorus crop removal rate, and not to exceed the crop nitrogen requirement, when soil phosphorus concentration in Zone 1 depth (0-6 inch if incorporated; 0-2 or 2-6 inch if not incorporated) is greater than 150 ppm phosphorus and less than 200 ppm phosphorus.
  - (F) Before commencing manure, wastewater, compost, and/or sludge application to third-party fields, at least one representative soil sample from each third-party field must be collected by a certified nutrient management specialist and analyzed in accordance with 30 TAC §321.36. Third-party fields which have had wastewater, sludge, compost, and/or manure applied during the preceding year must be sampled annually by a certified nutrient management specialist and the samples analyzed in accordance with 30 TAC §321.36. For third-party fields that have not received wastewater, sludge, compost, and/or manure during the preceding year, initial sampling must be completed before re-starting land application to the third-party field.
  - (G) A copy of the annual soil analyses shall be provided to the permittee within sixty (60) days of the date the samples were taken
  - (H) Temporary storage of wastewater, sludge, and/or manure is prohibited on third-party fields.
- (ii) The permittee is prohibited from delivering wastewater, sludge, and/or manure to an operator of a third-party field once the soil test

- phosphorus analysis shows a level equal to or greater than 200 ppm or after becoming aware that the third-party operator is not following appropriate provisions of 30 TAC §321.36, §321.40 and/or the contract.
- (iii) The permittee will be subject to enforcement action for violations of the land application requirements on any third-party field under contract.
- (iv) The permittee shall submit records to the appropriate regional office quarterly that contain the name, locations, and amounts of wastewater, sludge, and/or manure transferred to operators of third-party fields.
- (f) Irrigation Operating Requirements.
  - (1) Minimize Ponding. Irrigation practices shall be managed so as to minimize ponding or puddling of wastewater on the site, prevent tailwater discharges to water in the state, and prevent the occurrence of nuisance conditions.
  - (2) Discharge Prohibited
    - (i) The drainage of compost, manure, sludge, slurry and wastewater is prohibited from the LMU(s), unless authorized under Section VII.A.5(d).
    - (ii) Where compost, manure, sludge, slurry and wastewater is applied in accordance with the nutrient management plan and/or NUP, precipitation-related runoff from the LMU(s) under the control of the permittee is authorized.
    - (iii) If a discharge from the irrigation system is documented as a violation, the permittee may be required by the Executive Director to install an automatic emergency shut-down or alarm system to notify the permittee of system problems.
  - (3) Backflow Prevention. If the permittee introduces wastewater or chemicals to water well heads for the purpose of irrigation, then backflow prevention devices shall be installed according to 16 TAC Chapter 76 (related to Water Well Drillers and Water Well Pump Installers).
- (g) Nighttime Application.
  - (1) Land application at night shall only be allowed if there is no occupied residence(s) within one quarter (0.25) of a mile from the outer boundary of the actual area receiving compost, manure, sludge, slurry and wastewater application. In areas with an occupied residence within one quarter (0.25) of a mile from the outer boundary of the actual area receiving compost, manure, sludge, slurry and wastewater application, application shall only be allowed from one (1) hour after sunrise until one (1) hour before sunset, unless the current occupant of such residences have, in writing, agreed to specified nighttime applications.
  - (2) Land application of compost, manure, sludge, slurry and wastewater is prohibited between 12 a.m. and 4 a.m. during normal operating conditions.
- 9. Sampling and Testing.
  - (a) Manure and Wastewater. The permittee shall collect and analyze at least one representative sample of wastewater and one representative sample of manure

each year for total nitrogen, total phosphorus, and total potassium. The results of these analyses shall be used in determining application rates.

- (b) Soils
  - (1) Initial Sampling. Before commencing compost, manure, sludge, slurry and wastewater application to the LMU(s), the permittee shall have at least one representative soil sample from each LMU, collected and analyzed according to the following procedures.
  - (2) Annual Sampling. The TCEQ or its designee shall have soil samples collected annually for each current and historical LMU.
  - (3) Sampling Procedures. Sampling procedures shall employ accepted techniques of soil science for obtaining representative samples and analytical results, and be consistent with approved methods described in the Executive Director's guidance entitled "Soil Sampling for Concentrated Animal Feeding Operations (CAFOs) (RG-408)."
    - (i) Soil samples must be collected by one of the following persons:
      - (A) the NRCS:
      - (B) a certified nutrient management specialist;
      - (C) the Texas State Soil and Water Conservation Board;
      - (D) the Texas AgriLife Extension; or
      - (E) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas.
    - (ii) Samples shall be collected and analyzed within the same forty-five (45) day time frame each year, except when crop rotations or inclement weather require a change in the sampling time. The reason for a change in sampling timeframe shall be documented in the PPP.
    - (iii) Obtain one composite sample for each soil depth zone per uniform soil type (soils with the same characteristics and texture) within each LMU.
    - (iv) Composite samples shall be comprised of 10 15 randomly sampled cores obtained from each of the following soil depth zones:
      - (A) Zone 1: 0-6 inches (where the manure, sludge, slurry, or compost is physically incorporated or injected directly into the soil) or 0-2 inches (where the manure, sludge or slurry is not incorporated into the soil). Wastewater is considered to be incorporated upon land application if it is less than two percent (2%) solids. Slurry from freestall barns is treated like manure for this sampling requirement. If a 0-2 inch sample is required, then an additional sample from the 2-6 inch soil depth zone shall be obtained in accordance with the provisions of this section: and
      - (B) Zone 2: 6-24 inches.
  - (4) Laboratory Analysis. Samples shall be analyzed by a soil testing laboratory. Physical and chemical parameters and analytical procedures for laboratory analysis of soil samples shall include the following:
    - (i) nitrate reported as nitrogen in ppm;
    - (ii) phosphorus (extractable, ppm) using Mehlich III with Inductively Coupled Plasma (ICP);
    - (iii) potassium (extractable, ppm);
    - (iv) sodium (extractable, ppm);

- (v) magnesium (extractable, ppm);
- (vi) calcium (extractable, ppm);
- (vii) soluble salts (ppm) or electrical conductivity (dS/m) determined from extract of 2:1 (v/v) water/soil mixture; and

(viii) soil water pH (soil:water, 1:2 ratio).

- 10. Preventative Maintenance Program.
  - (a) Facility Inspections
    - (1) General Requirements
      - (i) Inspections shall include visual inspections and equipment testing to determine conditions that could cause breakdowns or failures resulting in discharge of pollutants to water in the state or the creation of a nuisance condition.
      - (ii) The permittee shall draft a report, to be maintained in the PPP, to document the date of inspections, observations and actions taken in response to deficiencies identified during the inspection. The permittee shall correct all the deficiencies within thirty (30) days or shall document the factors preventing immediate correction.
    - (2) Daily Inspections. The permittee shall conduct daily inspections on all water lines, including drinking water and cooling water lines, which are located within the drainage area of a RCS.
    - (3) Weekly Inspections. The permittee shall conduct weekly inspections on:
      - (i) all control facilities, including RCSs, storm water diversion devices, runoff diversion structures, control devices for management of potential pollutant sources, and devices channeling contaminated storm water to RCSs; and
      - (ii) equipment used for land application of compost, manure, sludge, slurry and wastewater.
    - (4) Monthly Inspections. The permittee shall conduct monthly inspections on:
      - (i) mortality management systems, including collection areas; and
      - (ii) disposal and storage of toxic pollutants, including pesticide containers.
    - (5) Annual Site Inspection.
      - (i) The permittee shall annually conduct a complete site inspection of the production area and the LMU(s).
      - (ii) The inspection shall verify that:
        - (A) the description of potential pollutant sources is accurate;
        - (B) the site plan/map has been updated or otherwise modified to reflect current conditions; and
        - (C) the controls outlined in the PPP to reduce pollutants and avoid nuisance conditions are being implemented and are adequate.
  - (b) Five Year Evaluation. Once every five years the permittee shall have a licensed Texas Professional Engineer review the existing engineering documentation, complete a site evaluation of the structural controls, review existing liner and RCS capacity documentation, and complete and certify a report of their findings. The report must be kept in the PPP.
- 11. Management Documentation. The permittee shall maintain the following records in the PPP:

- (a) a copy of the administratively complete and technically complete individual water quality permit application and the written authorization issued by the commission or Executive Director;
- (b) a copy of the approved recharge feature certification and appropriate updates;
- (c) a copy of the comprehensive nutrient management plan, nutrient management plan, nutrient utilization plan and appropriate updates to these plans, if required;
- (d) the RCS liner certification(s);
- (e) any written agreement with a landowner which documents the allowance of nighttime application of compost, manure, sludge, slurry and wastewater;
- (f) documentation of employee and operator training, including verification of the date, time of attendance, and completion of training;
- (g) the RCS management plan;
- (h) the capacity of each RCS as certified by a licensed Texas Professional Engineer; and
- (i) a copy of all third-party field contracts.

## **B.** General Requirements

- 1. The permittee shall not construct any component of the production area in any stream, river, lake, wetland, or playa (except as defined by and in accordance with the Texas Water Code §26.048).
- 2. Animals confined on the CAFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.
- 3. The permittee shall prevent the discharge of pesticide contaminated waters into water in the state. All wastes from dipping vats, pest and parasite control units, and other facilities used for the application of potentially hazardous or toxic chemicals shall be handled and disposed of in a manner that prevents any significant pollutants from entering water in the state or creating a nuisance condition.
- 4. The permittee shall operate the CAFO in such a manner as to prevent nuisance conditions of air pollution as mandated by Texas Health and Safety Code, Chapters 341 and 382.
- 5. The permittee shall take reasonable steps necessary to prevent adverse effects to human health or safety, or to the environment.
- 6. The permittee shall maintain control of the RCS(s), required LMU(s), and control facilities identified on the site map submitted in the application. In the event the permittee loses control of any of these areas, the permittee shall notify the Executive Director within five (5) working days.
- 7. If animals are maintained in pastures, the permittee shall maintain crops, vegetation, forage growth or post harvest residues in those pastures during the normal growing season, excluding the feed and/or water trough areas.

## C. Training

- 1. Employee Training
  - (a) Employees at the CAFO facility who are responsible for work activities relating to compliance with provisions of this permit must be regularly trained or informed of any information pertinent to the proper operation and maintenance of the facility and land application of manure, sludge, and wastewater.

- (b) Employee training shall address all levels of responsibility of the general components and goals of the PPP. Training shall include appropriate topics, such as land application of manure, sludge, and wastewater, proper operation and maintenance of the facility, good housekeeping, material management practices, recordkeeping requirements, and spill response and clean up.
- (c) The permittee is responsible for determining the appropriate training frequency for different levels of personnel. The PPP shall identify periodic dates for such training.
- 2. Operator Training. The operator shall attend at least eight (8) hours of continuing education in animal waste management or its equivalent, developed by the Executive Director and the Texas AgriLife Extension, for each two year period.
- 3. Verification of the date and time(s) of attendance and completion of required training shall be documented in the PPP.

#### D. Air Standard Permit Requirements

- 1. Air emission limitations.
  - (a) Facilities shall be operated in such a manner as to prevent the creation of a nuisance as defined by Texas Health and Safety Code, 30 TAC §§341.011 and 321.32(32), and as prohibited by 30 TAC §101.4. Facilities shall be operated in such a manner as to prevent a condition of air pollution as defined by Texas Health and Safety Code and 30 TAC §382.003(3).
  - (b) The permittee shall take necessary action to identify any nuisance condition that occurs. The permittee shall take action to abate any nuisance condition as soon as practicable or as specified by the Executive Director.
- 2. Wastewater treatment. The permittee shall design and operate RCSs to minimize odors in accordance with accepted engineering practices. Each RCS shall be operated in accordance with the design and an operation and maintenance plan that minimizes odors. The primary lagoon in a multi-stage lagoon system shall be designed with a minimum treatment volume so that the lagoon maintains a constant level at all times unless prohibited by climatic conditions. A multi-stage lagoon system shall be designed to minimize the amount of contaminated storm water runoff entering the primary lagoon by routing the contaminated storm water runoff into a secondary RCS.
- 3. Dust Control. To minimize dust emissions, the CAFO shall be operated and maintained as follows:
  - (a) Fugitive emissions from all grain receiving pits, where a pit is used, shall be minimized through the use of "choke feeding" or through an equivalent method of control. If choke feeding is used, operation of conveyors associated with receiving shall not commence until the receiving pits are full.
  - (b) As necessary, emissions from all in-plant roads, truck loading and unloading areas, parking areas, and other traffic areas shall be controlled with one or more of the following methods to minimize nuisance conditions and maintain compliance with all applicable commission requirements:
    - (1) sprinkled with water;
    - (2) treated with effective dust suppressant(s); or
    - (3) paved with a cohesive hard surface and cleaned.
  - (c) All non-vehicular external conveyors or other external conveying systems associated with the feedmill shall be enclosed.

- (d) On-site feed milling operations with processing equipment using a pneumatic conveying system (which may include, but are not limited to, pellet mill/pellet cooler systems, flaker systems, grinders, and roller-mills) shall vent the exhaust air through a properly-sized high efficiency cyclone collector or an equivalent control device before releasing the exhaust air to the atmosphere. This requirement does not include cyclones used as product separators.
- (e) If the Executive Director determines that the implementation and employment of these practices is not effective in controlling dust, the permittee shall implement any necessary additional abatement measures to control and minimize this contaminant within the time period specified by the Executive Director.
- 4. Maintenance and Housekeeping. The permittee shall comply with the following to help prevent nuisance conditions.
  - (a) The premises shall be maintained to prevent the occurrence of nuisance conditions from odors and dust. Spillage of any raw products or waste products causing a nuisance condition shall be picked up and properly disposed of daily.
  - (b) Proper pen drainage shall be maintained at all times. Earthen pen areas shall be maintained by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding.

## VIII. Recordkeeping, Reporting, and Notification Requirements A. Recordkeeping

The permittee shall keep records on-site for a minimum of five (5) years from the date the record was created and shall submit them within five (5) days of a written request by the Executive Director.

- 1. The permittee shall update records daily to include:
  - (a) all measurable rainfall events; and
  - (b) the wastewater levels in each RCS, as shown on the depth marker. In circumstances where a RCS has a water level exceeding the expected end of the month depth, the permittee shall document in the PPP why the level of water in the structure is not at or below the expected depth.
- 2. The permittee shall update records weekly to include:
  - (a) records of all wastewater, sludge, and/or manure removed from the CAFO that shows the dates, amount, and recipient. The permittee must make the most recent nutrient analysis available to any hauler; and
  - (b) inspections of control facilities and land application equipment.
- 3. The permittee shall update records monthly to include:
  - (a) records describing mortality management practices;
  - (b) storage and disposal of chemicals, including pesticide containers; and
  - (c) records of all compost, manure, sludge, slurry and wastewater applied on the LMU(s). Such records must include the following information:
    - (i) date of compost, manure, sludge, slurry and wastewater application to each LMU:
    - (ii) location of the specific LMU and the volume applied during each application event;
    - (iii) acreage on which compost, manure, sludge, slurry and wastewater is applied;

- (iv) basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU on a dry basis, including sources of nutrients other than compost, manure, sludge, slurry and wastewater; and
- (v) weather conditions, such as temperature, precipitation, and cloud cover, during the land application and twenty-four (24) hours before and after the land application.
- 4. The permittee shall update records annually to include:
  - (a) annual nutrient analysis for at least one representative sample of wastewater and one representative sample of manure for total nitrogen, total phosphorus, and total potassium;
  - (b) any initial and annual soil analysis reports;
  - (c) the annual site inspection report;
  - (d) percent moisture content of the manure, sludge, slurry, and wastewater; and
  - (e) actual annual yield of each harvested crop for each LMU.
- 5. The Five Year Evaluation report must be updated every five (5) years.
- 6. The permittee shall keep the following records on-site:
  - (a) a list of any significant spills of potential pollutants at the CAFO that have a significant potential to reach water in the state;
  - (b) documentation of liner maintenance by an NRCS engineer, a licensed Texas Professional Engineer or a licensed Texas Professional Geoscientist;
  - (c) RCS design calculations and as built capacity certification;
  - (d) embankment certification;
  - (e) liner certification;
  - (f) a copy of current and amended site plans; and
  - (g) copies of all notifications to the Executive Director, including any made to a regional office.

# **B.** Reporting and Notifications

- 1. The permittee shall provide written notice to the appropriate TCEQ regional office as soon as the RCS cleaning is scheduled, but not less than ten (10) days before cleaning. The permittee shall also provide written verification of completion to the same regional office within five (5) days after the cleaning has been completed. This paragraph does not apply to the cleaning of solid separators or settling basins that are functioning as solid separators.
- 2. The permittee shall notify the appropriate TCEQ regional office in writing or by electronic mail with the date, time, and location at least ten (10) working days before collecting soil samples from current and historical LMUs; and third-party fields.
- 3. Discharge Notification. If for any reason there is a discharge of manure, sludge or wastewater into water in the state, the permittee shall notify the appropriate TCEQ regional office orally within one (1) hour of discovery; unless it is not reasonably possible to do so in which event the discharge shall be reported as soon as reasonably possible, but in no event later than twenty-four (24) hours from when the discharge occurred. The permittee shall also submit written notice, within fourteen (14) working days of the discharge to the Office of Compliance and Enforcement, Enforcement Division (MC 224). In addition, the permittee shall document the following information, keep the information on-site, and submit the information to the appropriate regional office within fourteen (14) working days of becoming aware of such discharge. The written notification must include:

- (a) a description and cause of the discharge, including a description of the flow path to the receiving water body and an estimation of the volume discharged;
- (b) the period of discharge, including exact dates and times, and, if not corrected, the anticipated time the discharge is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the discharge;
- (c) if caused by a precipitation event(s), the date(s) of the event(s) and the rainfall amount(s) recorded from an on-site rain gauge; and
- (d) discharge monitoring analyses required by this permit.
- 4. In the event of a discharge of manure, sludge, or wastewater from a RCS or a LMU during a chronic or catastrophic rainfall event or resulting from catastrophic conditions, the permittee shall orally notify the appropriate TCEQ regional office within one (1) hour of the discovery of the discharge. The permittee shall send written notification to the appropriate regional office within fourteen (14) working days.
- 5. Chronic Rainfall Discharge. In the event of a discharge of manure, sludge or wastewater from a RCS or a LMU due to chronic rainfall, the permittee shall submit a report to the appropriate TCEQ regional office showing the CAFO records that substantiates that the overflow was a result of cumulative rainfall that exceeded the design rainfall event without the opportunity for dewatering, and was beyond the control of the permittee. After review of the report, if required by the Executive Director, the permittee shall have an engineering evaluation by a licensed Texas Professional Engineer developed and submitted to the Executive Director. This requirement is in addition to the discharge notification requirement in this permit.
- 6. Impacts to Human Health or Safety, or the Environment. The permittee shall provide the following noncompliance notifications:
  - (a) Any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally, by e-mail, or electronic facsimile transmission (Fax) to the TCEQ regional office within twenty four (24) hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the TCEQ regional office and the Enforcement Division (MC 224) within five (5) days of becoming aware of the noncompliance. 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 anticipated 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) In the event the permittee discharges manure, sludge, or wastewater other than as authorized in the permit, the permittee shall give twenty four (24) hour oral, e-mail, or fax notice and five (5) day written notice to TCEQ as required by paragraph (a) above.
- 7. The permittee shall submit an annual report to the appropriate regional office and the Enforcement Division (MC 224) by March 31 of each year for the 12-month reporting period of January 1 to December 31 of the previous year. The report shall be submitted on forms prescribed by the Executive Director to include, but not limited to:
  - (a) number and type of animals, whether in open confinement or housed under roof;

- (b) estimated total manure, sludge, and wastewater generated during the reporting period;
- (c) total compost, manure, sludge, slurry and wastewater land applied during the last twelve (12) months on-site at the CAFO facility;
- (d) total wastewater, sludge, and/or manure transferred to other persons during the reporting period;
- (e) total number of acres for land application under the control of the permittee and all third-party acreage;
- (f) summary of discharges of manure, sludge, or wastewater from the production area that occurred during the reporting period including dates, times, and approximate volume;
- (g) a statement indicating that the NMP/NUP, under which the CAFO is operating, was developed and approved by a certified nutrient management specialist;
- (h) a copy of the initial soil analysis for each new LMU, regardless of whether manure, wastewater, or sludge has been applied;
- (i) soil monitoring reports of all soil samples collected in accordance with the requirements of this permit;
- (j) groundwater monitoring reports (if applicable);
- (k) the actual crop(s) planted and yield(s) for each LMU;
- (l) the actual nitrogen and phosphorus content of manure, sludge or process wastewater that was land applied;
- (m) the results of data used in calculations and the results of calculations conducted in accordance with Attachment E;
- (n) the results of any soil testing for nitrogen and phosphorus conducted during the previous 12 months;
- (o) the amount of any supplemental fertilizer applied during the previous 12 months; and
- (p) any other information requested by the Executive Director.
- 8. The permittee shall furnish to the appropriate regional office, and the Enforcement Division (MC 224), soil testing analysis for third-party fields of all soil samples within sixty (60) days of the date the samples were taken in accordance with the requirements of this permit.

#### IX. Standard Permit Conditions

- A. The permittee has a duty to comply with all permit conditions. Failure to comply with any permit conditions is a violation of the permit and statutes under which it was issued and is ground 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.
- B. The permittee must apply for an amendment or renewal before the expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. Authorization to continue such activity terminates upon the effective denial of said permit.
- C. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the permit conditions.
- D. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment.

- E. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) installed or used by the permittee to achieve compliance with the permit conditions. Proper operation and maintenance also includes adequate laboratory and process controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the permit conditions.
- F. The permittee shall furnish any information, at the request of the Executive Director, which is necessary to determine whether cause exists for revoking, suspending, or terminating authorization under this permit. The requested information must be provided within a reasonable time frame and in no case later than thirty (30) days from the date of the request.
- G. The permittee shall give notice to the Executive Director before 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.
- H. Authorization from the Commission is required before beginning any change in the permitted facility or activity that would result in noncompliance with other permit requirements.
- I. Inspection and entry shall be allowed under Texas Water Code, Chapters 26-28, Health and Safety Code, §§361.032-361.033 and §361.037, and 40 Code of Federal Regulations (CFR) §122.41(I). The statement in Texas Water Code, §26.014 that the Commission entry of a facility 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 inspection.
- J. Standard Monitoring Requirements
  - 1. Samples required by this permit shall be collected and measurements shall be taken at times and in a manner so as to be representative of the monitored discharge or activity. Samples shall be delivered to the laboratory immediately upon collection, in accordance with any applicable analytical method and required maximum holding time. 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.
  - 2. Records of monitoring activities must include:
    - (a) the date, time, and place of sample or measurement;
    - (b) the identity of any individual who collected the sample or made the measurement;
    - (c) the chain-of-custody procedures used to maintain sample integrity from sample collection to laboratory delivery;
    - (d) the date and time of laboratory analysis;
    - (e) the identity of the individual and laboratory who performed the analysis;
    - (f) the technique or method of analysis; and
    - (g) the results of the analysis or measurement and quality assurance/quality control records.
  - 3. The permittee shall ensure that properly trained and authorized personnel monitor and sample the soil or wastewater related to any permitted activity.
- K. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly shall be reported to the Executive Director as promptly as possible.

- L. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §305.97 (relating to Action on Application for Transfer).
- M. PPPs, reports, and other information requested or required by the Executive Director shall be signed in accordance with the requirements of 30 TAC §305.128 (relating to Signatories to Reports).
- N. A permit may be amended, suspended and re-issued, or revoked for cause. The filing of a request by the permittee for a permit amendment, suspension and re-issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- O. A permit does not convey any property rights of any sort or any exclusive privilege.
- P. 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 fourteen (14) days following each schedule date.
- Q. If the permittee becomes aware that he/she 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, the permittee shall promptly submit such facts or information.
- R. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code, §§26.136, 26.212, and 26.213, for violations including but not limited to the following:
  - 1. negligently or knowingly violating Clean Water Act (CWA) §§301, 302, 306, 307, 308, 318, or 405 or any condition or limitation implementing any sections in a permit issued under CWA §402, or any requirement imposed in a pretreatment program approved under CWA §402(a)(3) or §402(b)(8);
  - 2. falsifying, tampering with, or knowingly rendering inaccurate any monitoring device or method required to be maintained under a permit; or
  - 3. knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance.
- S. The permittee shall comply with all applicable rules and regulations of the commission, including 30 TAC 321, Subchapter B.
- T. 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:
  - 1. Violation of any terms or conditions of this permit;
  - 2. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
  - 3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- U. Acceptance of the permit by the person to whom it is issued constitutes acknowledgement 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.
- V. In accordance with the Texas Water Code §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.

- W. 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.
- X. Notice of Bankruptcy.
  - 1. 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:
    - (a) the permittee;
    - (b) 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
    - (c) an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
  - 2. This notification must indicate:
    - (a) the name of the permittee;
    - (b) the permit number(s);
    - (c) the bankruptcy court in which the petition for bankruptcy was filed; and
    - (d) the date of filing of the petition.

### X. Special Provisions

- A. RCS Modifications / Volumes.
  - 1. The permittee shall modify existing RCS #2 to meet the total required capacity as listed on page 1 of this permit. Modifications shall comply with Section VII.A.3 of this permit. The permittee shall maintain the wastewater volumes in each RCS in accordance with Table 6.

**Table 6: Volume Allocations for RCSs (Acre-Feet)** 

RCS Name	Design Rainfall Event Runoff	Process Generated Wastewater	Minimum Treatment Volume	Sludge Accumul ation	Water Balance	Required Capacity Without Freeboard	Actual Capacity Without Freeboard
RCS #1	0.00	0.00	18.41	3.05	0.00	21.46	27.95
RCS #2	16.09	5.52	0.00	0.08	8.59	30.28	44.05

- 2. Compliance Schedule. All RCS modifications required by this permit shall be completed within 180 days after the issuance date of this permit. Upon written request to the TCEQ Regional Office, the Executive Director may grant an extension to the 180-day requirement.
- 3. Once construction and/or all modifications of RCS(s) are complete, the RCS management plan shall be developed and implemented within thirty (30) days.
- 4. All certifications required by Section VII.A.3(a) of this permit shall be submitted to the TCEQ Regional Office and CAFO Permitting, Water Quality Division (MC 150) within 30 days of completing construction and/or modification.
- B. Future Revisions to Bosque River Total Maximum Daily Load (TMDL). The permittee is hereby placed on notice that this permit may be amended by the TCEQ in order to make the terms and conditions of this permit consistent with any revisions to the Bosque River TMDL, associated Implementation Plan, and any revisions to federal regulations.

- C. The permittee shall submit the following record to the appropriate Regional Office and the Enforcement Division (MC 224) by March 31 of each year for the 12-month reporting period of January 1 to December 31 of the previous year.
  - 1. date of compost, manure, sludge, slurry and wastewater application to each LMU;
  - 2. location of the specific LMU and the volume applied during each application event;
  - 3. acreage of each individual crop on which compost, manure, sludge, slurry and wastewater is applied;
  - 4. basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU, including sources of nutrients other than compost, manure, sludge, slurry and wastewater on a dry basis;
  - 5. weather conditions, such as temperature, precipitation, and cloud cover, during the land application and twenty-four (24) hours before and after the land application;
  - 6. annual nutrient analysis for at least one (1) representative sample of manure, sludge (if applicable), slurry, and wastewater for total nitrogen, total phosphorus, and total potassium; and
  - 7. any measurements of sludge accumulations as required in each RCS.
- D. Table 7 describes the buffers that the permittee is required to install and maintain according to the NRCS practice standards in the referenced code. The map in Attachment B includes the location and distance requirements for all buffers.

**Table 7: Buffer Distances** 

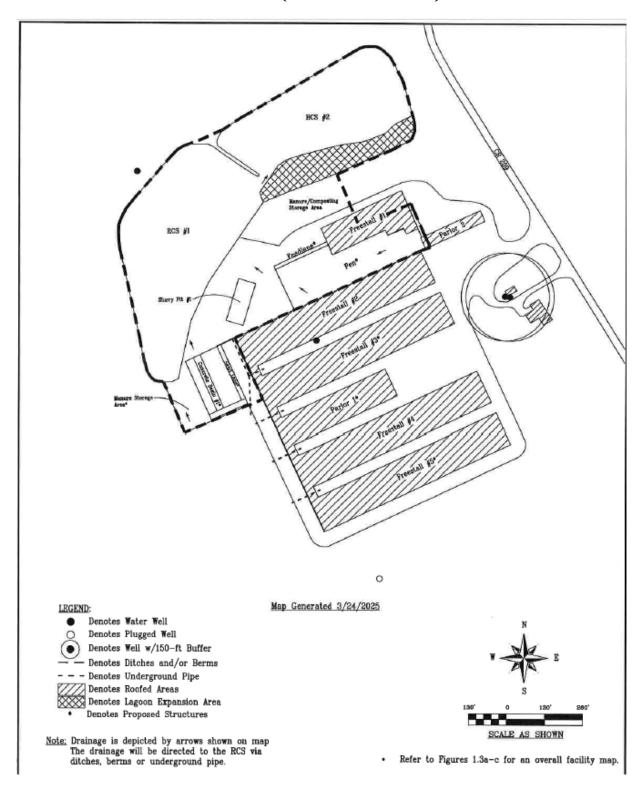
LMU Name	Vegetative Buffer Setback (feet)	Additional Buffer Setback NRCS Code 393 Filter Strip Flow Length (feet)
LMU #1	Not Applicable	
LMU #2	Not Applicable	
LMU #3	Not Applicable	
LMU #3A	100	36
LMU #4	Not Applicable	
LMU #4A	100	30
LMU #5	100	42
LMU #E1	100	36

- E. The sludge volume in each RCS will be measured and recorded in the PPP as necessary, but at least annually.
- F. There will be no grazing of livestock on the LMUs for this CAFO unless the NMP reflects grazing and the grazing practices mentioned in the NRCS Conservation Practice Code 393, Filter Strip, are implemented to protect buffers.
- G. Settling Basin Solids.
  - 1. For the purpose of this permit, settling basin solids shall be defined as manure.
  - 2. If settling basin solids are land applied, an annual sample must be collected and analyzed in accordance with Section VII.A.9(a), in addition to other manure and wastewater.
  - 3. Settling basin solids shall be cleaned out regularly to maintain the percent settling basin design efficiency.

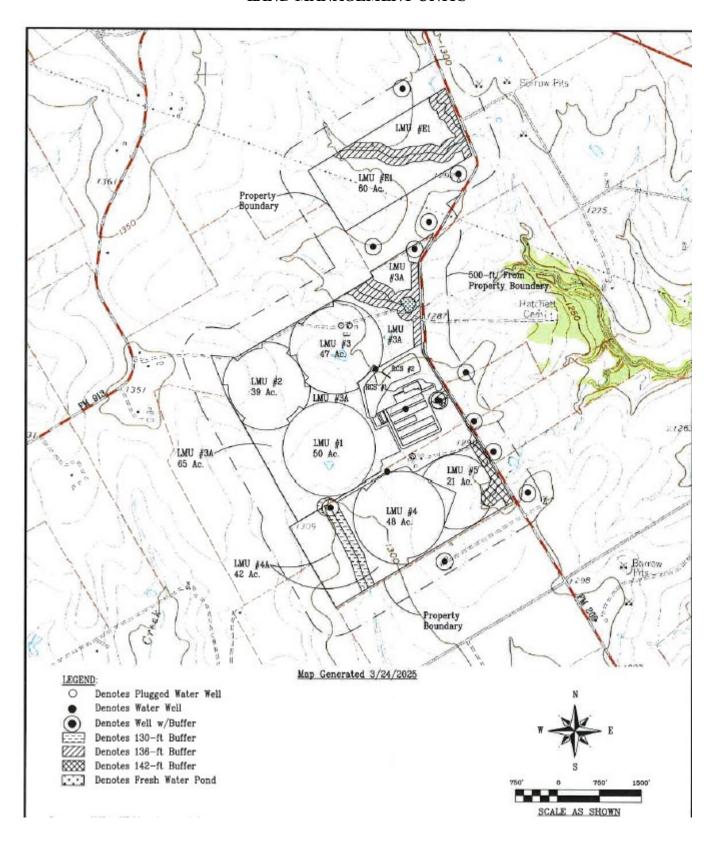
- 4. At a minimum, settling basins shall be cleaned out annually, unless the permittee furnishes certification by a licensed Texas P.E. that the settling basin continues to perform according to the design removal efficiency.
- H. All runoff from silage, commodity, and hay storage outside the RCS drainage area will be contained. Appropriate provisions for that containment will be stated in the PPP upon issuance of the permit. This permit does not authorize any discharge from the silage, commodity, or hay storage areas located outside the drainage area of the RCSs.
- I. Slurry from freestall barn
  - 1. For the purpose of this permit, slurry from freestall barns shall be defined as manure.
  - 2. If slurry from freestall barns is land applied, an annual sample must be collected and analyzed in accordance with Section VII.A.9(a), in addition to other manure and wastewater.
  - 3. Slurry removed from freestall barns must be stored within the drainage area of an RCS, and the storage area must be large enough to prevent overflow into settling basins and/or RCSs. Any overflow of these storage basins shall be recorded in the PPP and notification shall be provided to the Regional Office within thirty (30) days. Based on review of the information this permit may be formally amended to require additional controls or other requirements.
- J. Upon issuance of the permit, prior to land application of manure or wastewater, a current NMP must be in place and it shall thereafter be updated annually with the most recent soil, manure, and wastewater analyses. For LMUs that have a phosphorus level in the soil of more than 200 ppm, a NUP must be developed or updated in accordance with Section VII.A.8(c).
- K. During the annual site inspection, the permittee will inspect Well #4, Well #5, and Well #9. Special attention should be given to ensure that the concrete slabs, well heads, and the best management practices listed in Table 3 are in place and functional. Integrity compromises, such as the concrete slab cracking, sanitary seal deterioration, cracks in the well casing, or well house deterioration will be repaired within 30 days of the discovery. Permittee shall ensure no runoff or wastes encroach upon the wells. Fertilizers and pesticides will not be stored on or in any structure that houses the water wellhead. Maintenance records for the wells shall be maintained onsite.
- L. Sludge must be analyzed for nutrient content prior to routing offsite for any land application. The analysis for each haul off shall be maintained in the PPP. (See Section VII.A.5(g) for additional requirements relating to sludge cleanout.)
- M. Flushing of the freestall barns is prohibited. Manure removal may be accomplished by dry scrape or vacuum only.
- N. Manure and settled solids accumulations in the settling basin must be removed on a regular and consistent basis so as to assure attainment of the 50% designed removal efficiency.
- O. Land management units that are pre-dominantly PcC and Pd soils may need supplemental watering to maintain soil moisture as stated in the Best Management Practices in the Recharge Feature Certification that is maintained on-site in the PPP.
- P. The annual wastewater sampling shall be sampled from RCS #2.
- Q. A LMU map showing historical LMUs shall be maintained in the PPP.
- R. During the annual site inspection, the permittee shall inspect the integrity of the concrete settling basin #1 behind commodity area, concrete slurry storage pond north of freestall, and conveyance/diversion structure. Integrity comprises, such as, cracking, leaking, or

- deterioration shall be repaired within 30 days of the inspection. Inspection and maintenance records shall be maintained in the onsite PPP.
- S. The freestall barns, as noted on Attachment A to the permit, shall be guttered and runoff will be diverted outside the drainage area of the RCS.
- T. Irrigation of wastewater from the LMU #5 center pivot sprinkler is prohibited over the buffered areas. The irrigation system must be capable of restricting flow to the required number of drop nozzles (and end gun if present) to protect the buffer. Cut-off points for center pivot in LMU #5 must be clearly identified on the surface of the LMU.
- U. Within 180 days of permit issuance, the permittee will plug water well #3, as shown on Attachment D in accordance with 16 TAC 76 water well drilling rules. A copy of the plugging report and abandoning report will be retained in the on-site PPP.
- V. Within 180 days of issuance of this permit, the permittee shall ensure site-specific documentation is prepared and certified by a licensed Texas Professional Engineer that shows the concrete basins are free from integrity comprises such as cracking, leaking, or deterioration. This documentation shall be placed in the PPP and made available to the Executive Director upon request. During the site inspection, the permittee shall inspect the integrity of the concrete settling basin. Integrity comprises, such as, cracking, leaking, or deterioration shall be repaired within 30 days of the inspection. Inspection and maintenance records for the concrete settling basin shall be maintained in the onsite PPP.

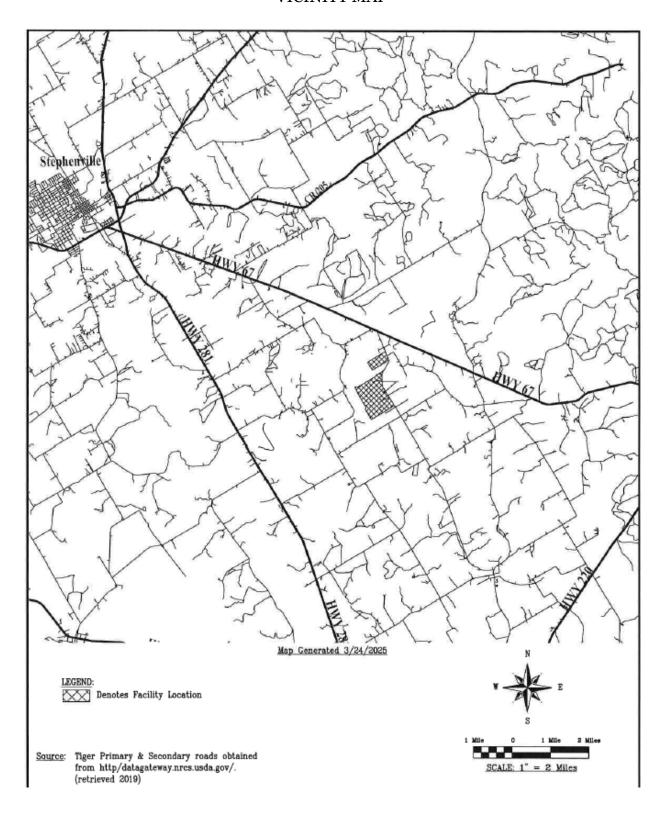
# ATTACHMENT A SITE MAP (RUNOFF CONTROL)



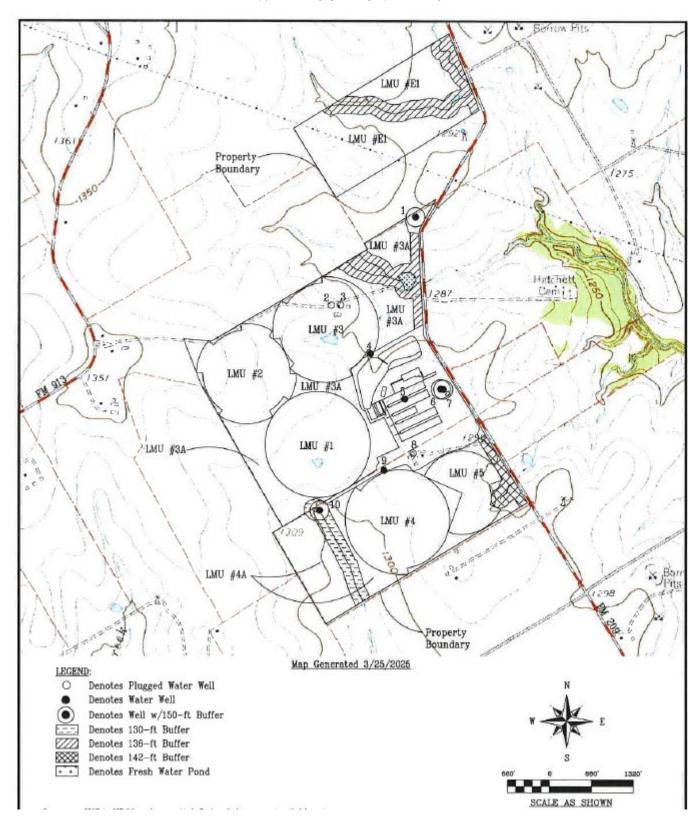
# ATTACHMENT B LAND MANAGEMENT UNITS



# ATTACHMENT C VICINITY MAP



# ATTACHMENT D WELL LOCATION AREAS



# METHODOLOGY FOR CALCULATING MAXIMUM APPLICATION RATES AND ANNUAL RECALCULATION OF APPLICATION RATES

1. Identify the Soil Test Phosphorus (P) Level (Extremely Low, Very Low- Low, Medium, High, Very High) on the soil test analysis.

Soil Test P Rating	Soil Test P Levels (ppm*)
Extremely Low	Less than 5
Very Low - Low	5 to less than 20
Medium	20 to less than 50
High	50 to less than 100
Very High	Greater than or equal to 100

<sup>\*</sup>ppm is equivalent to mg/kg of solids

- 2. Update Table 1 to Attachment E:
  - (a) Populate the Sub Total column with the point value that corresponds to the Site Characteristic for each.
  - (b) Calculate the Total Index Points
  - (c) Select the P Runoff Potential from the total sum of the Index Points of the Site Characteristics using the Phosphorus Index Classification Table.
- 3. Determine which of the tables (Table 2A or Table 2B) of Table 2 to Attachment E on the following page is appropriate to use. Each table describes the criteria for its use.
- 4. Determine which application rate column is appropriate using the following criteria:
  - (a) Use the Maximum TMDL Annual P Rate if this LMU is located in a segment with an approved TMDL.
  - (b) Use Maximum Annual P Application if this LMU is <u>not</u> located in a segment with an approved TMDL and you wish to apply annually.
  - (c) Use Maximum Biennial Application Rate if this LMU is <u>not</u> located in a segment with an approved TMDL and you wish to apply biennially.
- 5. Determine the Maximum Application Rate using the table identified in Step 3, the column identified in Step 4, and the P Runoff Potential identified in Step 2.(c).
- 6. Using one of the approved crops and yield goals identified on Attachment F for this LMU, determine the maximum application rate (in lbs/ac) for that crop and yield goal and the Maximum Application Rate identified in Step 5 from the S-Crop Table.
  - (a) Example 1: If the Maximum Application Rate in Step 5 is "1.5 Times Annual Crop P Requirement", find the number identified on the S-Crop Table under the column "Crop  $P_2O_5$  requirement" for your crop/yield goal, then multiply that number by 1.5 to determine your maximum application rate (in lbs/ac  $P_2O_5$ ).
  - (b) Example 2: If the Maximum Application Rate in Step 5 is "0.5 Times Annual Crop P Removal", find the number identified on the S-Crop Table under the column "Crop  $P_2O_5$  Removal Rate" for your crop/yield goal, then multiply that number by 0.5 to determine your maximum application rate (in lbs/ac  $P_2O_5$ ).

# TABLE 1: PHOSPHORUS INDEX WORKSHEET FOR EAST TEXAS FROM NRCS PRACTICE STANDARD 590

Client Name:			Field(s):		Date:	
Planner:			Location:		Crop:	
Impaired Watershed						
(Y or N):			off Curve No.:		% Slope:	
Site Characteristic	_			Column Factor]		Sub
(Weighting Factor)	0	1	2	4	8 \/\/	Total
Soil Test P Rating	N/A	Very Low – Low	Moderate	High	Very High	
(1.00)	[0]	[1.0]	[2.0]	[4.0]	[8.0]	
Fertilizer Phosphorus (P <sub>2</sub> O <sub>5</sub> ) Application Rate	None Applied	1-40 lbs/ac P <sub>2</sub> O <sub>5</sub>	41-90 lbs/ac P <sub>2</sub> O <sub>5</sub>	91-150 lbs/ac P <sub>2</sub> O <sub>5</sub>	>150 lbs/ac P <sub>2</sub> O <sub>5</sub>	
(0.75)	[0]	[0.75]	[1.5]	[3.0]	[6.0]	
Organic Phosphorus (P <sub>2</sub> O <sub>5</sub> ) Application Rate	None Applied	1-40 lbs/ac P <sub>2</sub> O <sub>5</sub>	41-90 lbs/ac P <sub>2</sub> O <sub>5</sub>	91-150 lbs/ac P <sub>2</sub> O <sub>5</sub>	>150 lbs/ac P <sub>2</sub> O <sub>5</sub>	
(0.75)	[0]	[0.75]	[1.5]	[3.0]	[6.0]	
Phosphorus Fertilizer Application Method and Timing	None Applied	Placed deeper than 2 in. or broadcast and incorporated within 48 hours	Surface applied 12/1-2/15	Surface applied 2/16-4/15 or 6/16- 11/30	Surface Applied 4/16-6/15	
(0.50)	[0]	[0.50]	[1.0]	[2.0]	[4.0]	
Organic Phosphorus source Application Method and Timing	None Applied	Placed deeper than 2 in. or broadcast and incorporated within 48 hours	Surface applied 12/1-2/15	Surface applied 2/16-4/15 or 6/16- 11/30	Surface Applied 4/16-6/15	
(0.50)	[0]	[0.50]	[1.0]	[2.0]	[4.0]	
Proximity of nearest field edge to named stream or lake	> 2000 feet	1000 – 1999 feet	500 – 999 feet	100 – 499 feet	< 100 feet	
(1.25)	[0]	[1.25]	[2.5]	[5.0]	[10.0]	
Runoff Class (Runoff Class Table 3)	Negligible	Low	Moderate	High	Very High	
(1.00)	[0]	[1.0]	[2.0]	[4.0]	[8.0]	
Soil Erosion (all sources)	Very Low <1 t/ac	Low 1-3 t/ac	Medium 3-5 t/ac	High 5-10 t/ac	Very High >10 t/ac	
(1.50)	[0]	[1.5]	[3.0]	[6.0]	[12.0]	
				Т	otal Index Points:	

#### TABLE 2: APPLICATION RATES FROM NRCS PRACTICE STANDARD 590

Commercial fertilizers must be applied in accordance with SWFTL\* recommendations. Application of all organic soil amendments must not exceed the values in Table 2A or 2B.

<u>Table 2A</u>. A Nutrient Management Plan (NMP)<sup>1</sup> is required where any organic soil amendments are applied where Soil Test P Level is less than 200 ppm statewide or, less than 350 ppm in arid areas<sup>2</sup> with distance to a named stream greater than one mile.

P – Index	Maximum TMDL Annual	Maximum Annual P	Maximum Biennial Application
Rating	P Application Rate	Application Rate	Rate
Very Low,	Annual Crop Nitrogen	1.0 Times Annual	2.0 Times Annual Crop N
Low	(N) Requirement	Crop N Requirement	Requirement
Medium	2.0 Times Annual Crop P	2.0 Times Annual	2.0 Times Annual Crop N
	Requirement <sup>3</sup>	Crop P Requirement <sup>3</sup>	Requirement
High	1.5 Times Annual Crop P	1.5 Times Annual Crop	Double the Maximum Annual P
	Requirement <sup>3</sup>	P Requirement	Application Not to Exceed 2 Times
	_	_	the Annual Crop N Requirement
Very High	1.0 Times Annual Crop P	1.0 Times Annual	Double the Maximum Annual P
	Requirement <sup>3</sup>	Crop P Requirement <sup>3</sup>	Application Not to Exceed 2 Times
	_		the Annual Crop N Requirement

**Table 2B.** A Nutrient Utilization Plan (NUP)<sup>1</sup> is required where Soil Test P Level is: equal to or greater than 200 ppm in nonarid areas<sup>2</sup>, or equal to or greater than 350 ppm in arid areas<sup>2</sup> with distance to a named stream greater than one mile and erosion control is adequate to keep erosion at the soil loss tolerance (T) or less, or equal to or greater than 200 ppm in arid areas<sup>2</sup> with distance to a named stream less than one mile.

P – Index Rating	Maximum TMDL Annual P Application Rate	Maximum Annual P Application Rate	Maximum Biennial Application Rate
Very Low,	1.0 Times Annual Crop P	Annual Crop N	2.0 Times Crop N Removal
Low	Removal <sup>4</sup>	Removal	2.0 Times Crop iv Removar
Medium	1.0 Times Annual Crop P	1.5 Times Annual	Double the Maximum Annual P
	Removal <sup>4</sup>	Crop P Removal <sup>4</sup>	Application Not to Exceed 2 Times
			the Annual Crop N Removal
High	1.0 Times Annual Crop P	1.0 Times Annual	Double the Maximum Annual P
	Removal <sup>4</sup>	Crop P Removal <sup>4</sup>	Application Not to Exceed 2 Times
			the Annual Crop N Removal
Very High	0.5 Times Annual Crop P	0.5 Times Annual	Double the Maximum Annual P
	Removal <sup>4</sup>	Crop P Removal <sup>4</sup>	Application Not to Exceed 2 Times
		_	the Annual Crop N Removal

Footnotes Applicable to both Tables

<sup>&</sup>lt;sup>1</sup>NMP and NUP designations are consistent with 30 TAC §321.40.

<sup>&</sup>lt;sup>2</sup>All counties must use the 200 ppm P level limit to determine whether to use Table 2A or Table 2B. However, in counties receiving less than 25 inches of annual rainfall, the 350 ppm P level limit applies if the field application area is greater than 1 mile from a named stream or lake. See map in current Texas Agronomy Technical Note 15, Phosphorus Assessment Tool for Texas for county rainfall designations.

<sup>&</sup>lt;sup>3</sup>Not to exceed the annual nitrogen requirement rate.

<sup>&</sup>lt;sup>4</sup>Not to exceed the annual nitrogen removal rate.

SWFTL\* Texas A&M AgriLife Extension Soil, Water and Forage Testing Laboratory

# SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS FROM THE NUTRIENT MANAGEMENT PLAN

Crop and Yield Goal	Nitro	gen	P2O5	
	Requirement	Removal	Requirement	Remova
Alfalfa Hay 10 Tons	530	532	180	101
Alfalfa Hay 12 Tons	640	638	180	121
Alfalfa Hay 2 Tons	120	106	35	20
Alfalfa Hay 4 Tons	210	213	80	40
Alfalfa Hay 6 Tons	300	319	130	60
Alfalfa Hay 8 Tons	420	426	180	81
Bahia 2 Cut Hay 7000 #	140	89	70	21
Bahia 3 Cut Hay 8000 #	210	102	80	24
Bahia 4 Cut Hay 9000 #	280	114	115	27
Bahia Grazing + 1 Hay	110	83	70	19
Bahia Grazing 1 AU/1 ac	260	114	70	27
Bahia Grazing 1 AU/2 ac	220	108	45	25
Bahia Grazing 1 AU/3 ac	180	102	45	24
Bahia Grazing 1 AU/4 ac	140	95	45	22
Bahia Grazing 1 AU/5 ac	100	79	45	18
Bahia Grazing 1 AU/6 ac	60	65	45	15
Cantaloupes 15-20 tons	120	88	105	82
Coastal 2 Cut + Graze	260	198	125	62
Coastal 2 Cut Hay	200	169	125	39
Coastal 3 Cut + Graze	360	257	125	80
Coastal 3 Cut Hay	300	238	125	74
Coastal 4 Cut Hay	400	257	170	80
Coastal 5-6 Cut Hay	500	297	170	93
Coastal Grazing + 1 Hay	160	145	70	34
Coastal Grazing 1 AU/0.5 ac	300	218	70	68
Coastal Grazing 1 AU/1 ac	240	198	70	62
Coastal Grazing 1 AU/2 ac	200	169	70	39
Coastal Grazing 1 AU/3 ac	160	145	70	34
Coastal Grazing 1 AU/4 ac	120	120	70	28
Coastal Grazing 1 AU/5 ac	90	103	70	24
Coastal Grazing 1 AU/6 ac	60	86	70	20
Coastal GC (30%DM) 21-23 Ton	400	345	170	95
Coastal GC (30%DM) 18-20 Ton	350	300	170	82
Coastal GC (30%DM) 15-17 Ton	300	255	125	70
Coastal GC (30%DM) 9-11 Ton	200	170	125	47
Common 2 Cut Hay 6000 #	140	113	80	26
Common 3 Cut Hay 7400 #	210	141	80	46
Common 4 Cut Hay 8000 #	280	152	80	49
Common 5-6 Cut Hay 9000 #	350	171	80	56
Common Grazing + 1 Hay	110	100	70	23
Common Grazing + 2 Hay	180	132	80	30
Common Grazing + 3 Hay	250	148	80	48
Common Grazing 1 AU/1ac Common Grazing 1 AU/2 ac	260	152	70	49
Common Grazing 1 AU/2 ac	220	143	45	46
Common Grazing 1 AU/4 ac	180	132	45	30
Common Grazing 1 AU/4 ac	140	113	45	26
Common Grazing I AU/S ac	100	94	45	22
Common Grazing 1 AU/6 ac	60	79	45	18

# SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS FROM THE NUTRIENT MANAGEMENT PLAN

Crop and Yield Goal	Nitro	gen	P2O5	
	Requirement	Removal	Requirement	Removal
Corn 111 - 130 bu	144	117	105	47
Corn 131 - 150 bu	164	135	105	54
Corn 151 - 170 bu	180	153	130	61
Corn 171 - 190 bu	210	171	130	68
Corn 191 - 210 bu	250	189	130	75
Com 211 - 230 bu	280	207	130	83
Corn 231 - 250 bu	300	225	130	90
Com 250 - 275 bu	325	243	130	97
Corn 276 - 300 bu	350	261	130	104
Com 301 - 350 bu	375	279	130	111
Corn 50 - 70 bu	70	63	80	25
Com 71 - 90 bu	90	81	80	32
Corn 91 - 110 bu	120	99	105	39
Cotton 0.5 Bale	25	18	30	9
Cotton 1.0 Bale	50	36	55	18
Cotton 2.0 Bale	100	71	105	35
Cotton 3.0 Bale	150	107	105	53
Cotton 3.5 Bale	175	125	105	62
Cotton 4.0 Bale	200	142	105	71
Cotton 4.5 Bale	225	160	105	80
Cotton 5.0 Bale	250	178	105	89
Eastern gamagrass- 3000 #	80	57	40	21
Eastern gamagrass- 6000 #	120	114	60	41
Fescue, Tall Hay/Graze 7000#	150	140	80	42
Grain Sorg. 1000 #	20	17	30	8
Grain Sorg. 10000 #	200	167	130	82
Grain Sorg. 1500 #	30	25	30	12
Grain Sorg. 2000 #	40	33	30	16
Grain Sorg. 3000 #	60	50	55	25
Grain Sorg. 4000 #	80	67	55	33
Grain Sorg. 5000 #	100	84	80	41
Grain Sorg. 6000 #	120	100	80	49
Grain Sorg. 7000 #	140	117	130	58
Grain Sorg. 8000 #	160	134	130	66
Grain Sorg. 9000 #	180	150	130	74
Guar 3500 lbs	25	22	80	76
Johnsongrass Hay 6000 #	140	101	80	32
Klein 3 Cut Hay 7200 #	150	83	55	16
Klein 4 Cut Hay 7800 #	150	90	55	18
Klein Grazing + 1 Hay	80	69	55	14
Klein Grazing 1 AU/1.5 ac	150	90	80	18
Klein Grazing 1 AU/2.5 ac	80	69	55	14
Klein Grazing 1 AU/6 ac	40	58	55	11
Legume Overseeded	80	60	105	15
Legume w/ryegrass	160	94	160	38
Midland Bermuda 4000 #	120	75	80	17
Midland Bermuda 6000 #	150	113	105	26
Midland Bermuda 8000 #	200	150	105	35

# SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS FROM THE NUTRIENT MANAGEMENT PLAN

Crop and Yield Goal	Nitro	gen	P20	)5
The section of the se	Requirement	Removal	Requirement	Remova
Native Grazing or Hay 4000#	80	44	70	34
Native Grazing or Hay 3000#	40	33	55	25
Native Grazing or Hay 1500#	20	17	27	13
Native Grazing or Hay 750#	10	8	13	6
Oat Light Grazing	120	107	55	40
Oat Moderate Grazing	160	110	80	41
Oats Hay 2-3 tons	120	100	55	37
Oats Heavy Grazing plus Hay	200	117	80	43
Old World Bluestem- 3000 #	40	33	55	25
Old World Bluestem- 6000 #	80	66	55	51
Peanut Hay Dryland 1 Ton	50	47	70	11
Peanut Hay Dryland 2 Tons	100	93	70	22
Peanut Hay Irrigated 3 Tons	150	140	95	33
Peanuts Irrigated 4500 #	180	162	95	18
Rice Early 7500 #	195	104	45	41
Rice Late 7500 #	180	104	45	41
Rice plus Ratoon Early 10000 #	295	139	60	55
Rice plus Ratoon Late 10000 #	280	139	60	55
Rye Forage 5000 #	140	84	55	31
Rye Forage 7000 #	240	117	80	43
Rycgrass Hay 6000	140	100	55	37
Ryegrass Heavy Grazing	200	117	80	43
Ryegrass Moderate Grazing	140	84	55	31
SG Green Chop(25% DM) 8 to 9 tons	260	203	90	73
SG Green Chop(25% DM) 6 to 7 tons	200	158	80	57
SG Green Chop(25% DM) 4 to 5 tons	135	113	60	41
SG Green Chop(25% DM) 2 to 3 tons	75	68	40	24
SG Silage(35% DM) 12 to 14 tons	160	128	90	67
SG Silage(35% DM) 10 to 11 tons	120	101	70	53
SG Silage(35% DM) 8 to 9 tons	95	83	40	43
SG Silage(35% DM) 5 to 7 tons	70	64	30	34
Silage - Corn(35% DM) 11 - 15 Ton	140	119	80	58
Silage - Com(35% DM) 16 - 20 Ton	240	183	100	77
Silage - Corn(35% DM) 21 - 25 Ton	350	263	105	96
Silage - Corn(35% DM) 26 - 30 Ton	420	315	135	115
Silage - Corn(35% DM) 7 - 10 Ton	85	79	60	38
Silage - Sorg(35% DM) 11 - 15 Ton	200	179	75	55
Silage - Sorg(35% DM) 16 - 20 Ton	280	238	95	74
Silage - Sorg(35% DM) 21 - 25 Ton	360	298	115	92
Silage - Sorg(35% DM) 26 - 30 Ton	380	315	130	
Silage - Sorg(35% DM) 31 - 40 Ton	450	364	155	111
Silage - Sorg(35% DM) 41 - 50 Ton	580	455	190	168
Silage - Sorg(35% DM) 51 - 60 Ton	700	550	220	202
Silage - Sorg(35% DM) 7 - 10 Ton	125	119	60	37
Small Grain Heavy Grazing	240	112	105	41
Small Grain Light Grazing	60	75	80	28
Small Grain Moderate Grazing	160	97	105	36
Sorg Sudan Hay/Graze 11000 #	240	219	105	83

# SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS FROM THE NUTRIENT MANAGEMENT PLAN

Crop and Yield Goal	Nitrogen		P2O5	
	Requirement	Removal	Requirement	Remova
Sorg Sudan Hay/Graze 7500 #	160	149	55	57
Sorg Forage Hay/Graze 11000 #	240	219	105	83
Sorg Forage Hay/Graze 7500 #	160	151	55	57
Soybean 30 bu	110	119	60	24
Soybean 50 bu	180	180	80	40
Sunflower 2000#	100	71	56	30
Sunflower 3000#	175	107	65	45
Triticale Graze or Hay 7000 #	160	117	105	43
Triticale Graze or Hay 9000 #	240	150	105	56
Watermelons 12 tons	80	53	55	49
Weeping Lovegrass 3500 #	70	39	55	30
Wheat Forage 2000 #	60	33	80	12
Wheat Forage 4000 #	160	67	105	25
Wheat Forage 6000 #	240	100	105	37
Wheat Grain 20 - 30 bu + Grazing	60	58	55	40
Wheat Grain 20 - 30 bu	45	37	55	26
Wheat Grain 31 - 40 bu + Grazing	80	71	75	48
Wheat Grain 31 - 40 bu	60	50	75	34
Wheat Grain 41 - 50 bu + Grazing	100	83	75	57
Wheat Grain 41 - 50 bu	75	62	75	43
Wheat Grain 51 - 60 bu + Grazing	120	96	90	
Wheat Grain 51 - 60 bu	90	75	90	65
Wheat Grain 61 - 70 bu + Grazing	140	108	90	51 74
Wheat Grain 61 - 70 bu	105	87	90	
Wheat Grain 71 - 80 bu + Grazing	160	121	95	60
Wheat Grain 71 - 80 bu	120	100	95	82
Wheat Grain 81 - 90 bu + Grazing	180	133	95	68
Wheat Grain 81 - 90 bu	135	112	95	91
Wheat Grain 91 - 100 bu + Grazing	200	146	95	77
Wheat Grain 91 - 100 bu	150	125	95	99
Wheat Heavy Grazing	240	114	105	85
Wheat Light Grazing	60	75		42
Wheat Moderate Grazing	160	97	80	28
Millet GC (25% DM) 18 - 24 Ton	180	140	105	36
Millet Hay/Graze 11000 #	150	95	60	46
Silage - Millet(35% DM) 15 - 18 Ton	190	139	45	40
Popcom Shelled 3000 - 4000 #	80	74	60	46
Popcorn Shelled 4000 - 5000 #	100	92	80	27
Popcorn Shelled 5000 - 6000 #	120	110	80	33
Vetch Hay 1 Ton	70	60	80	40
Vetch Hay 2 Tons	140	120	105	14
Vetch Green chop(25%DM) 4 Tons	70	56	105	28
Vetch Green chop(25%DM) 8 Tons	140	112	105	7
Winter Pea Hay 5000#	140	137	105	14
inter Pea Green chop(25%DM)8-9 Tons	140	123	105	35
Cowpea Hay 2 Tons	140	120	105	32
wpea GreenChop 8Tons(25%DM) Tons	140		105	26
Tolls	140	120	105	26

# SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS (LMUs) FROM THE NUTRIENT MANAGEMENT PLAN

**Table 2: Current Site-Specific Information from NMP** 

LMU Name	Acreage	Crop(s) and Yield Goal(s)	*Nitrogen Recommen dation (lbs/ac)(*1)	*Phosphorus as P <sub>2</sub> O <sub>5</sub> Recommend ation (lbs/ac)(*1)	Nitrogen Maximum Application Rates (lbs/ac)* (*1)	Phosphorus as P <sub>2</sub> O <sub>5</sub> Maximum Application Rates (lbs/ac)*
LMU #1	50	Coastal: 4 Cut Hay Small Grain: Moderate Graze	259	108	259	108
LMU #2	39	Coastal: 4 Cut Hay Small Grain: Moderate Graze	259	108	259	108
LMU #3	47	Coastal: 4 Cut Hay Small Grain: Moderate Graze	560	233	560	233
LMU #3A	65	Coastal: 3 Cut Hay Small Grain: Moderate Graze	169	96	169	96
LMU #4	48	Coastal: 4 Cut Hay Small Grain: Moderate Graze	260	108	260	108
LMU #4A	42	Coastal: 3 Cut Hay Small Grain: Moderate Graze	460	262	460	262
LMU #5	21	Coastal: 3 Cut Hay Small Grain: Moderate Graze	460	191	460	191
LMU E1	60	Coastal: 4 Cut Hay Small Grain: Moderate Graze	189	108	189	108

NOTE: See page 43.

#### NOTE:

- \*Nutrients Applied When Application is At Maximum Rates from NMP 590-633 Plan V 5.0 with the Print Date 07/29/2025. Any future revision to the NMP will be based on the current version of the 590-633 CNMP Component (NMP/NUP) Worksheet. Maximum rates are based on wastewater and manure analyses dated 6/14/2024 and soil analysis reports dated 09/19/2024 and 09/30/2024 by the Soil, Water and Forage Testing Laboratory, AgriLife Extension, College Station, Texas. The Maximum Rates (lb/ac) for nitrogen (N) and phosphorus ( $P_2O_5$ ) will be updated based on most recent annual analyses of soil and waste.
- (\*1) Nutrient recommendations and maximum amount of nutrients derived from all sources have been established for both nitrogen and phosphorus based on the NMP submitted with the application. The permittee is required to recalculate these values annually in accordance with the requirements of this permit. These annual recalculations do not constitute a substantial change and therefore do not require an amendment of this permit.

#### **Fact Sheet and Executive Director's Preliminary Decision**

### I. Description of Application

Applicant: Hillside Dairy, LLC Permit No.: WQ0003160000

Regulated Activity: Concentrated Animal Feeding Operation; Dairy Cattle

Permit Action: Major Amendment

Authorization: Air & Water Quality Authorization

## II. Executive Director's Recommendation

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The proposed permit shall be issued for a 5-year term in accordance with 30 TAC Chapter 305.

### III. Reason for Proposed Project

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment of Texas Pollutant Discharge Elimination System Permit No. WQ0003160000 to authorize the permittee to modify an existing dairy cattle Concentrated Animal Feeding Operation (CAFO) by increasing the maximum capacity from 3,000 to 4,500 head, total dairy cattle, of which 4,000 will be milking cows; reconfiguring existing land management units (LMUs) #1 - 50 acres, #2 - 34 acres, #3 - 47 acres, #3A - 61 acres and #4 - 43 acres into proposed LMU #1 - 50 acres, LMU #2 - 39 acres, LMU #3 - 47 acres, LMU #3A - 65 acres, LMU #4 – 48 acres, LMU #4A – 42 acres and LMU #5 – 21 acres, with an additional 108 acres from surrounding land and backfilled ponds; remove the following LMUs from the property boundary: LMU #5 - 26 acres, LMU #5A - 42 acres, LMU #6 - 27 acres; and remove the following offsite LMUs from the permit: LMU #8 - 34 acres, LMU #8A - 7 acres, LMU #MR1 - 162 acres, LMU #MR2 - 90 acres, and LMU #220 - 64 acres. The total land application area will decrease from 772 to 372 acres. Other proposed changes include the surface area expansion of retention control structure (RCS) #2, reconfiguration of the drainage areas of RCSs #1 and #2; addition of parlor #1, freestall barns #3 and #5, a sand lane, and concrete basin #1; and reconfiguration of the pen south of freestall barn #1. The RCS design calculations have been revised which decreased the required capacity of RCS #1 from 25.26 to 21.64 acre-feet and RCS #2 from 34.05 to 30.28 acre-feet. The following are proposed to be removed from the production area: concrete basins #2 and #3, commodity area, proposed cross-ventilation barn, and the pen area south of freestall barn #3. The facility maps have been revised to reflect these changes as well as the removal of Wells #11 - #27 and the plugging of Well #3.

The permit was modified for ownership change from Randy Earl Wyly and Hillside Dairy, LLC to Hillside Dairy, LLC.

# IV. Facility Description and Location

Maximum Capacity: 4,500 total head, of which 4,000 head are milking

Land Management Units (LMUs) (Acres): LMU#1 - 50, LMU#2 - 39, LMU#3 - 47, LMU #3A - 65, LMU#4 - 48, LMU #4A - 42, LMU #5 - 21, LMU E1 - 60.

Location: The facility is located at 3502 County Road 209, Hico in Erath County, Texas 76457. Latitude: 32.150555° N and Longitude: 98.072222° W.

Drainage Basin: The facility is located in the drainage area of the North Bosque River in Segment No. 1226 of the Brazos River Basin.

The facility consists of 2 Retention Control Structures (RCSs), one Slurry Storage Pit and one Concrete Settling Basin. The table below indicates the volume allocations for the RCSs:

RCS #1 and #2 act in-series.

Table 1: Volume Allocations for RCSs (Acre-Feet)

RCS Name	Design Rainfall Event Runoff	Process Generated Wastewater	Minimum Treatment Volume	Sludge	Water Balance	Required Capacity	Actual Capacity (if existing)
RCS #1	0.00	0.00	18.41	3.05	0.00	21.46	27.95
RCS #2	16.09	5.52	0.00	0.08	8.59	30.28	44.05

- A. The volume allocations are determined using Natural Resource Conservation Service standards, American Society of Agricultural and Biological Engineers standards, and/or site-specific data submitted in the permit application.
- B. The Design Rainfall Event is the volume of runoff from the 25 year, 10 day storm event. The RCS is required to include adequate capacity to contain this amount of runoff as a margin of safety to protect against discharges during rainfall events that may exceed the average monthly values used to design the RCS, but do not constitute chronic or catastrophic rainfall. This volume allocation accommodates runoff from open lot surfaces, all areas between the open lots and the RCS, runoff from roofed areas that contribute to the RCS and direct rainfall on the surface of the RCS. Runoff curve numbers used to calculate the runoff volume from the open lot surfaces are reflective of the characteristics of open lot surfaces and range between 90 and 95. Runoff curve numbers used to compute the runoff from areas between the open lots and the RCS are reflective of the land use and condition of the areas between the open lots and RCS. A curve number of 100 is used for the RCS surface and all roofed areas.
- C. Process Generated Wastewater is the volume of wet manure and wastewater generated by the facility that is flushed or otherwise directed to the RCS. Wastewater includes all water used directly or indirectly by the facility that comes in contact with manure or other waste. The RCS must contain the process generated wastewater from a 21 day period or greater. RCS #2 is designed to contain 30 days of process generated wastewater for this permit.
- D. Treatment volume is required to minimize odors for facilities requesting air authorization under the Air Standard Permit in 30 TAC Section 321.43. Treatment volume is based on the amount of volatile solids produced and the volatile solids loading rate. Volatile solids are solid material in waste that can be decomposed through biological, physical, and chemical activity. The rate of solids decomposition is based on temperature; therefore it varies by geographic location. The volatile solids loading rate for this facility is 5.3 pounds per day of volatile solids per 1000 ft<sup>3</sup> of treatment volume.
- E. Sludge accumulation volumes are required in the RCS that receives runoff from open lots, flushwater from freestall barns, and flushwater from the milking parlor. The sludge

accumulation volume for flushwater entering the RCS is based on a rate of 0.0729 cubic feet of storage capacity per pound of total solids in the wet manure entering the RCS during the design sludge accumulation period. The sludge accumulation volume allocated for runoff from open lots is calculated using USDA Agricultural Field Waste Handbook, Kansas, Part 651.1083, which uses the following equation: (%SC)  $\times$  (MAR)  $\times$  (DA)  $\times$  (SP), where %SC = percent solids content of runoff, MAR = mean annual runoff (in inches), DA = contributing drainage area (in acres), and SP = sediment storage period (in years). A minimum of one year of sludge storage is required in the RCS. Design sludge volumes in this permit reflect a one (1) year sludge accumulation period.

The RCS volume designated as Water Balance is the capacity needed in addition to the F. Process Generated Wastewater volume to provide adequate operating capacity so that the operating volume does not encroach into the design storm volume. The water balance is an analysis of the inflow into the RCS, all outflows from the RCS and the consumptive use requirements of the crops on the land areas being irrigated. The water balance is developed on a monthly basis. It estimates all inflows into the RCS including process generated wastewater and runoff from open lots, areas between open lots and the RCS, roofed areas and direct rainfall onto the RCS surface. Consumptive use potential for the areas to be irrigated is developed based on the potential evapotranspiration of the crops and the effective average monthly rainfall on the area to be irrigated. Runoff curve numbers used for the water balance are adjusted from one (1) day to 30 day curve numbers to more accurately reflect monthly values. Evaporation from the RCS surface is computed on a monthly basis. Monthly withdrawals from the RCS are developed based on the total inflow to the RCS minus evaporation from the RCS surface and limited by the monthly crop consumptive use potential.

## V. Summary of Changes from Existing Authorization

- A. Section IV. of the permit (on Page 1) was amended to show the:
  - 1. Change in ownership from Randy Wyly and Hillside Dairy, LLC to Hillside Dairy, LLC.
  - 2. Total dairy and milking cattle headcount; the reconfigured LMUs and the acreage; and the revised required capacities for the RCSs.
- B. The technical packet was revised to show the revised RCS required volumes. Section VI.C.1 shows the revised treatment capacity for the Treatment Pond; and Table 6 in Section X.A shows the RCSs volume allocations.
- C. Attachments A that relates to Site Map, B that relates to LMU maps, C that relates to the Vicinity Map and D that relates to Well location were updated to reflect the changes to the site.
- D. Table 3 that relates to well status and BMPs in Section VII.A.7 of the permit was revised to remove Wells #11 #27. And the status of Well #3 was revised to show Non-producing and to be plugged.
- E. The following Sections of the permit were amended because of the LMUs that have been removed:
  - 1. Page 1 of the permit

- 2. Table 4 that relates to soil limitations and BMPs, in Section VII.A.7 of the permit was revised to remove the soil series and BMPs of the removed LMUs including the Bolar Denton Complex, Lindy, Frio, Bunyan, Hassee and Hensley soil series.
- 3. Table 7 that relates to buffer distances in Section X.D of the permit.
- F. Section X.I. and X.S. were amended to remove the word "cross ventilated barns" because the proposed barn is being removed from the permit, and added freestall barns to Section X.S.
- G. Section X.R. was amended to remove concrete settling basin #2.
- H. The following new Special Provisions have been added to Section X of the permit, except as noted.
  - 1) X.A.1. that relates to the RCSs volumes was amended to add the underlined text, and 2 through 4 are new:
    - A. RCS <u>Modifications</u> / Volumes.
      - 1. The permittee shall modify existing RCS #2 to meet the total required capacity as listed on page 1 of this permit. Modifications shall comply with Section VII.A.3 of this permit. The permittee shall maintain the wastewater volumes in each RCS in accordance with Table 6.
      - 2. Compliance Schedule. All RCS modifications required by this permit shall be completed within 180 days after the issuance date of this permit. Upon written request to the TCEQ Regional Office, the Executive Director may grant an extension to the 180-day requirement.
      - 3. Once construction and/or all modifications of RCS(s) are complete, the RCS management plan shall be developed and implemented within thirty (30) days.
      - 4. All certifications required by Section VII.A.3(a) of this permit shall be submitted to the TCEQ Regional Office and CAFO Permitting, Water Quality Division (MC 150) within 30 days of completing construction and/or modification.
  - 2) Section X.T. Irrigation of wastewater from the LMU #5 center pivot sprinkler is prohibited over the buffered areas. The irrigation system must be capable of restricting flow to the required number of drop nozzles (and end gun if present) to protect the buffer. Cut-off points for center pivot in LMU #5 must be clearly identified on the surface of the LMU.
  - 3) Section X.U. Within 180 days of permit issuance, the permittee will plug water well #3, as shown on Attachment D in accordance with 16 TAC 76 water well drilling rules. A copy of the plugging report and abandoning report will be retained in the on-site PPP.
  - 4) Section X.V. Within 180 days of issuance of this permit, the permittee shall ensure site-specific documentation is prepared and certified by a licensed Texas Professional Engineer that shows the concrete basins are free from integrity comprises such as cracking, leaking, or deterioration. This documentation shall be placed in the PPP and made available to the Executive Director upon request. During the site inspection, the permittee shall inspect the integrity of the concrete settling basin. Integrity comprises, such as, cracking, leaking, or deterioration shall be repaired

within 30 days of the inspection. Inspection and maintenance records for the concrete settling basin shall be maintained in the onsite PPP.

#### VI. Proposed Permit Conditions and Monitoring Requirements

#### A. Effluent Limitations

Compost, manure, sludge, slurry and wastewater may only be discharged from a LMU or a properly designed, constructed, operated and maintained RCS into water in the state from this CAFO if any of the following conditions are met:

- discharge resulting from a catastrophic condition other than a rainfall event that the permittee cannot reasonably prevent or control;
- a discharge resulting from a catastrophic rainfall event from a RCS;
- a discharge resulting from a chronic rainfall event from a RCS; or
- a discharge resulting from a chronic rainfall event from a LMU that occurs because the permittee takes measures to de-water the RCS in accordance with the individual permit, relating to imminent overflow.

40 CFR §122.44 specifies that any requirements, in addition to or more stringent than promulgated effluent limitation guidelines, must be applied when they are necessary to achieve state water quality standards. Water quality based effluent limitations must be established when the TCEQ determines there is a reasonable potential to cause or to contribute to an in-stream excursion above the allowable ambient concentration of a state numeric criterion. For CAFO discharges the TCEQ must consider:

- 1. existing controls on point and non-point sources of pollution;
- 2. variability of the pollutant in the effluent; and
- 3. dilution of the effluent in the receiving water.

In proposing this permit, the TCEQ addresses considerations 2 and 3 since continuous discharges are prohibited and effluent discharges are authorized only during catastrophic conditions or a chronic or catastrophic rainfall event from a RCS properly designed, constructed, operated and maintained. The effluent pollutant levels are variable and effluent is usually not discharged. Additionally, during these climatic events, water bodies receiving a contribution of CAFO wastewater should be significantly diluted by other rainfall runoff.

Consideration 1 requires permit controls on CAFO discharges which will result in the numeric criteria of the water quality standards being met, thus ensuring that applicable uses of water in the state are attained. The principal pollutants of concern include organic matter causing biochemical oxygen demand, the discharge of ammonia-nitrogen, phosphorus and *Escherichia coli*. This permit requires discharges to be monitored for the pollutants of concern. Existing technology does not allow for practicable or economically achievable numeric effluent limitations at this time. The Environmental Protection Agency (EPA) has not promulgated effluent guidelines or numeric effluent limitations that would allow regular discharges of CAFO process wastewater or process-generated wastewater. The proposed permit addresses potential pollutant impacts through requirements including numerous narrative (non-numeric) controls on CAFO process wastewater and non-point sources of pollutant discharges associated with CAFOs. Setting specific water quality-based effluent limitations in this permit is not feasible (see 40 CFR §122.44 (k)(3)).

The general and site-specific provisions which are expected to result in compliance with water quality criteria and protection of attainable water quality are discussed in the following sections of this fact sheet: RCS Design and Operational Requirements; Requirements for Beneficial Use of Manure, Sludge, and Wastewater; Additional Water Quality Requirements; and Monitoring and Reporting Requirements.

### B. RCS Design and Operational Requirements

The draft permit includes the following requirements related to proper RCS design, construction, operation and maintenance:

- 1. The RCS(s) must be designed and constructed to meet or exceed the margin of safety, equivalent to the volume of runoff and direct precipitation from the 25 year/10 day rainfall event. The design rainfall event, at which time the CAFO is authorized to discharge, is 12.1 inches. The application includes design calculations and certification by a Professional Engineer, which determine the design criteria for the RCS(s).
- 2. A RCS management plan is required to be implemented. This plan must establish expected end of the month water storage volumes for each RCS. These maximum levels are based on the design assumptions used to determine the required size of the RCS. This plan assures the permittee will maintain wastewater volumes within the designed operating capacity of the structures, except during chronic or catastrophic rainfall events. The permittee must document and provide an explanation for all occasions where the water level exceeds the expected end of the month storage volumes. By maintaining the wastewater level at or below the expected monthly volume, the RCS will be less likely to encroach into the volume reserved for the design rainfall event and/or discharge during smaller rainfall events.
- 3. The pond marker must have one-foot increments. This requirement identifies the level of wastewater storage to assist the permittee in the implementation of the RCS management plan. It also acts as an enforcement tool for TCEQ to determine compliance with the RCS management plan.
- 4. The wastewater level in the RCS(s) must be recorded daily. This requirement will assist the permittee in the implementation of the RCS management plan and will provide a visual indication of compliance.
- 5. The amount of sludge in the RCS(s) must be maintained at or below the designed sludge volume. Proper sludge management will reduce overflows associated with insufficient wastewater storage capacity. This permit requires that sludge accumulations in the RCS(s) be measured at least annually.
- 6. The RCS(s) must be adequately lined and certified by a Texas Professional Engineer; alternatively, certification must document that in situ material meets the requirements of constructed and installed liners. Groundwater has the potential to resurface as surface water. Therefore, preventing impacts to groundwater also provides protection to surface water. A liner certification, certified by a Professional Engineer, for the existing RCSs was submitted with the application.

**Table 2: Existing RCS Liner Certifications** 

RCS Name	Liner Certification Date
RCS #1	October 29, 2007; November 20, 2015 – Liner Disturbance
RCS #2	December 21, 2010; November 13, 2019 – liner maintenance
Slurry Storage Pit	July 18, 2018

- 7. The RCS(s) must maintain two vertical feet of material equivalent to construction materials between the top of the embankment and the structure's spillway to protect from overtopping the structure. RCS(s) without spillways must have a minimum of two vertical feet between the top of the embankment and the required storage capacity.
- 8. The entry of uncontaminated stormwater runoff into RCS(s) must be minimized. The site includes diversion structures to direct contaminated runoff into the RCS(s) and to prevent uncontaminated stormwater runoff from entering the RCS(s).

### C. Requirements for Beneficial Use of Manure, Sludge, and Wastewater

Nutrient pollutants of concern have narrative criteria and are discharged in CAFO wastewater. Nutrient pollutants have been addressed through imposition of BMPs. No water quality impacts are expected to occur from land application based upon properly prepared and implemented nutrient management practices. The proposed permit contains requirements related to the collection, handling, storage and beneficial use of manure, wastewater, and sludge. These requirements were established based on TCEQ rules, EPA guidance, NRCS Field Operations Technical Guidance and the Animal Waste Management Field Handbook, recommendations from the TCEQ's Water Quality Assessment Team, and best professional judgment.

The elements of a NMP as listed in 40 CFR §122.42(e)(1) have been incorporated into this permit. This permit requires a NMP developed by a certified nutrient management specialist, based on United States Department of Agriculture/Natural Resource Conservation Service (NRCS) Practice Standard 590 and each of the required elements to be implemented upon issuance of this permit. In relation to these items, the proposed permit meets federal requirements.

1. For LMUs with a soil phosphorus concentration of less than 200 ppm in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated), land application of commercial fertilizer, compost, manure, sludge, slurry and wastewater must be in accordance with a certified NMP. This plan is based on the NRCS Practice Standard Code 590. This plan involves a site-specific evaluation of the LMU to include soils, crops, nutrient need and includes the phosphorus index tool. The phosphorus index is a site-specific evaluation of the risk potential for phosphorus movement into watercourses. The risk potential is determined by site characteristics such as soil phosphorus level, proposed phosphorus application rate, application method and timing, proximity of the nearest field edge to a named stream or lake, runoff class, and soil erosion potential. The application rates are adjusted according to the risk potential. The higher the risk potential, the lower the application rate; thus there is minimal potential to have excess nutrients available to leave the site and affect water quality.

- 2. For LMUs with a soil phosphorus concentration of 200-500 ppm in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated), land application of commercial fertilizer, compost, manure, sludge, slurry and wastewater must be in accordance with a nutrient utilization plan (NUP). The NUP is a revised NMP based on crop removal. A crop removal application rate is the amount of nutrients contained in and removed by the proposed crop. At the discretion of the certified nutrient management specialist, the NUP may also include a phosphorus reduction component. This NUP must be submitted to the TCEQ for review and approval.
- 3. For LMUs with a soil phosphorus concentration of greater than 500 ppm in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated), land application of commercial fertilizer, compost, manure, sludge, slurry and wastewater must be in accordance with a NUP based on crop removal which also includes a phosphorus reduction component. A phosphorus reduction component is a management practice, incorporated into the NUP, which is designed to further reduce the soil phosphorus concentration by means such as phosphorus mining, moldboard plowing, or other practices utilized by the permittee. This revised NUP must also be submitted to the TCEQ for review and approval. Permittees required to operate under a NUP with a phosphorus reduction component must show a reduction in the soil phosphorus concentration within twelve (12) months or may be subject to enforcement actions.
- 4. Table 3 below identifies the maximum application rate, as shown in the NMP submitted in the permit application. NMPs are routinely updated and the values shown below are subject to change.

Table 3: LMU Maximum Application Rates and Soil Phosphorus Levels

LMU Name	Soil Test P (ppm)	Max Annual P <sub>2</sub> O <sub>5</sub> (lbs/ac)
LMU #1	270	108
LMU #2	384	108
LMU #3	109	233
LMU #3A	235	96
LMU #4	336	108
LMU #4A	187	262
LMU #5	152	191
LMU E1	212	108

5. All generated manure, sludge or wastewater in excess of the amount allowed to be land applied by the NMP or NUP must be delivered to a composting facility authorized by the Executive Director, delivered to a permitted landfill, beneficially used by land application on land located outside of the major sole source impairment zone, or provided to operators of third-party fields for beneficial use subject to specified land application requirements and testing. By requiring specific outlets for excess manure, sludge and wastewater, the permit limits unregulated use of manure, sludge and wastewater within the watershed.

- 6. The permittee must continue to operate under a Comprehensive NMP (CNMP) certified by the Texas State Soil and Water Conservation Board (TSSWCB). The CNMP must be developed by a qualified individual(s) in accordance with TSSWCB regulations. The CNMP is a whole farm plan that addresses nutrient management from the origin in the feed rations to final disposition. The CNMP considers all nutrient inputs, onsite use and treatment, outputs, and losses. Inputs include animal feed, purchased animals, and commercial fertilizer. Outputs include animals sold, harvested crops removed from the facility, and manure removed from the facility. Losses include volatilization, stormwater runoff, and leaching.
- 7. The permittee must implement additional conservation practices on LMUs adjacent to water in the state. These conservation practices include a 100-foot vegetative buffer, filter strips, vegetative barrier, and/or contour buffer strips. Site specific conditions and NRCS practice standards specify which conservation practices, in addition to the required 100-foot vegetative buffer, must be implemented. The conservation practices reduce erosion, suspended solids and nutrients in runoff from LMUs. This will improve the quality of stormwater runoff prior to entering water in the state.
- 8. In Table 4 below, the Additional Buffer Setback distance was determined by using the NRCS Conservation Practice Code 393, Filter Strip. The practice code uses a combination of hydrologic soil groups and field slope percentages to calculate an appropriate filter strip length.

**Table 4: Buffer Distances for Each LMU** 

LMU Name	Vegetative Buffer Setback (feet)	Additional Buffer Setback NRCS Code 393 Filter Strip Flow Length (feet)
LMU #1	Not Applicable	
LMU #2	Not Applicable	
LMU #3	Not Applicable	
LMU #3A	100	36
LMU #4	Not Applicable	
LMU #4A	100	30
LMU #5	100	42
LMU #E1	100	36

- 9. Land application is prohibited between the hours of 12 a.m. and 4 a.m. This provision reduces the potential of irrigation related discharges associated with equipment malfunctions.
- 10. Discharge of wastewater from irrigation is prohibited, except a discharge resulting from irrigation events associated with imminent overflow conditions. Precipitation-related runoff from LMUs is allowed by the permit, when land application practices are consistent with a NMP or NUP.
- 11. Terms of the NMP and Changes to the Terms of the NMP

The permit addresses the terms of the NMP and changes to the terms of the NMP to clarify substantial and non-substantial changes.

- (a) Attachment E of the draft permit describes the methodology for calculating maximum application rates and annual recalculation of application rates and Attachment F of the draft permit shows the list of the proposed alternative crops, their yield goals, and the N and P requirements and removal rates for each crop and yield goal.
- (b) To the extent that the alternative crops were identified in the application, annual recalculations do not constitute a substantial change to the terms of the NMP, and therefore will not require a permit amendment. The maximum amounts of N and P from all sources of nutrients and the amounts of manure and process wastewater to be applied on alternative crops will be determined in accordance with the methodology described in Attachment E of the draft permit when such crops are being used.
- (c) Nutrient recommendations and maximum amount of nutrients derived from all sources have been established for both nitrogen (N) and phosphorus (P) based on the NMP that was submitted with the application. The permittee is required to recalculate these values annually based on the most recent analyses of wastewater, manure, and soil.
- (d) Section VII.A.8(a)(2) of the permit lists changes to the terms of the NMP that will require a major amendment to the permit. Changes that would result in a major amendment are:
  - Increase in animal headcount;
  - Increase in LMU acreage or a change in LMU location; or
  - Change in crop and yield goal (not listed in Attachment F of the proposed permit).
- (e) Any changes (substantial or non-substantial) to the NMP, other than the annual recalculation of application rates outlined in Attachment E, must be submitted to the ED for review. If the ED determines that the changes to the NMP are non-substantial, the revised NMP will be made publicly available and included in the permit record. If the ED determines that the changes to the NMP are substantial, the information provided by the permittee will be subject to the major amendment process.

#### 12. Third-Party Fields

The proposed permit authorizes the use of third-party fields, i.e. land not owned, operated, controlled, rented, or leased by the CAFO owner or operator that have been identified in the Pollution Prevention Plan (PPP). The permittee must have a contract with the operator of the third-party fields. The written contract must require all transferred manure, wastewater, and sludge to be beneficially applied to third-party fields in accordance with the applicable requirements in 30 Texas Administrative Code §321.36 and §321.40 at an agronomic rate based on soil test phosphorus in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated). A certified nutrient management specialist must annually collect soil samples from each third-party field used and have the samples analyzed in

accordance with the requirements for permitted LMUs. The permittee is prohibited from delivering manure, wastewater, and sludge to an operator of a third-party field once the soil test phosphorus analysis shows a level equal to or greater than 200 ppm in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated) or after becoming aware that the third-party operator is not following the specified requirements and the contract. The permittee will be subject to enforcement action for violations of the land application requirements on any third-party field. The third-party fields must be identified in the PPP. The permittee must submit a quarterly report with the name, locations, and amounts of manure, wastewater, and sludge transferred to operators of third-party fields.

#### VII. Additional Water Quality Requirements

The approved recharge feature certification submitted in the permit application must be updated and maintained in the onsite PPP. The recharge feature certification identifies any natural or artificial features on the CAFO site, either on or beneath the ground surface, which could provide or create significant pathways for wastewater or manure to enter the underlying aquifer, and describes measures to prevent adverse impacts to groundwater. Groundwater has the potential to resurface as surface water. Therefore, preventing impacts to groundwater also provides protection to surface water.

Table 5 below shows potential soil limitations identified in the recharge feature evaluation and the proposed management practices to address those limitations.

**Table 5: Soil Limitations** 

Soil Series and Map ID	Potential Limitations	BMPs*
Purves: Pcc, PcB	Depth to Hard Bedrock Droughty Slow Water Movement	Land application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP.)  No land application to inundated soils.  Land application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients.  Maintain cover crop in LMUs.  Maintain soil moisture to promote crop growth.
Slidell: HoA, HoB	Slow Water Movement	Land application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP.)  No land application to inundated soils.
Maloterre: Ma	Droughty Depth to Hard Bedrock	Land application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP.)  No land application to inundated soils.
Purves-Dugout Complex: Pd	Droughty Depth to Bedrock Slow Water Movement Large Stones	Maintain cover crop in LMUs.  Maintain soil moisture to promote crop growth.

Table 6 below lists all wells on the facility, their status, and what BMP will be implemented to protect groundwater. A Well Buffer Exception request for Well #4, Well #5 and Well #9 were submitted to and approved by the TCEQ Water Quality Assessment Team.

**Table 6: Water Well Protection** 

Well Number	Status	BMPs
1	Producing	Maintain 150 ft buffer
2	Non-Producing	Plugged
3	Non-Producing	To Be Plugged
4	Producing	Surface slab and RCS spillway located downgradient of well
5	Producing	Enclosed in a covered concrete vault and located upgradient of pen areas
6	Producing	Maintain 150 ft buffer
7	Producing	Maintain 150 ft buffer
8	Non-Producing	Plugged
9	Producing	A concrete slab, no irrigation over wellhead and a protective cover is installed
10	Producing	Maintain 150 ft buffer

#### VIII. Monitoring and Reporting Requirements

- A. The permittee is required to report all discharges to TCEQ. Discharges resulting from a chronic or catastrophic rainfall event or catastrophic conditions must be reported orally within one hour of the discovery of the discharge and in writing within fourteen (14) working days. For any discharges, grab samples must be collected and analyzed for Biochemical Oxygen Demand, *Escherichia coli*, Total Dissolved Solids, Total Suspended Solids, Nitrate, Total Phosphorus, Ammonia Nitrogen and pesticides (if suspected).
- B. The permittee must provide a report to the TCEQ to substantiate a chronic rainfall discharge. After review of the report, if required by the Executive Director, the permittee must have an engineering evaluation by a licensed Texas Professional Engineer developed and submitted to the Executive Director. The report and engineering evaluation may be used to verify that the facility was maintained and operated according to the permit conditions. Information reviewed may include rainfall records at the CAFO, RCS wastewater levels preceding the discharge, irrigation records, and the current sludge volume. This requirement allows for closer scrutiny by TCEQ for discharges resulting from chronic conditions and provides documentation for enforcement of unauthorized discharges.
- C. Soil samples must be taken annually from LMUs and analyzed for Nitrate, Phosphorus, Potassium, Sodium, Magnesium, Calcium, Soluble salts/electrical conductivity, and pH. The results are used in the NMP to determine land application rates. Annual soil samples must be collected by one of the following persons:

- the NRCS; a certified nutrient management specialist;
- the Texas State Soil and Water Conservation Board;
- the Texas AgriLife Extension; or
- an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas.

The TCEQ or its designee shall have soil samples collected annually for each current and historical LMUs and the TCEQ Regional Office must be notified ten (10) days prior to annual soil sample collection activities on third-party fields. The permittee is required to submit soil analyses for third-party fields to TCEQ.

- D. The permittee is required to annually collect and analyze at least one (1) representative sample of wastewater, sludge (if applicable), or manure for total nitrogen, total phosphorus, and total potassium. The results are used in the NMP to determine land application rates.
- E. Some of the land application records maintained by the permittee must be submitted to the TCEQ annually. These records include: date of compost, manure, sludge, slurry and wastewater application to each LMU; location of the specific LMU and the volume applied during each application event; acreage of each individual crop on which compost, manure, sludge, slurry and wastewater is applied; basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU, including sources of nutrients and amount of nutrients on a dry weight basis other than compost, manure, sludge, slurry and wastewater and; weather conditions, such as temperature, precipitation, and cloud cover, during the land application and twenty-four (24) hours before and after the land application.
- F. Other recordkeeping requirements include: daily records of RCS wastewater levels and measurable rainfall; weekly records of manure, wastewater, and sludge removed from the facility, inspections of control facilities and land application equipment; and monthly records of compost, manure, sludge, slurry and wastewater land applied.

#### IX. 303(D) Listing and Total Maximum Daily Load (TMDL)

The facility for this permit action is located within the watershed of the North Bosque River in Segment No. 1226 of the Brazos River Basin. The designated uses and dissolved oxygen criterion as stated in Appendix A of the Texas Surface Water Quality Standards (30 TAC §307.10) for Segment No. 1226 are primary contact recreation, public water supply, high aquatic life use, and 5.0 mg/L dissolved oxygen.

Little Duffau Creek is currently listed on the State's inventory of impaired and threatened waters (the 2024 Clean Water Act Section 303(d) list) for bacteria. The North Bosque River (Segments 1226 and 1255) was included in the 1998 Texas CWA Section 303(d) List and deemed impaired under narrative water quality standards related to nutrients and aquatic plant growth.

Segment No. 1226 is included in the Agency's document *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River*, adopted by the Commission on February 9, 2001 and approved by EPA on December 13, 2001. *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed* (I-Plan) was approved by the Commission on December 13, 2002 and approved by the Texas State Soil and Water Conservation Board on January 16, 2003. According to the TMDL I-Plan,

management measures for control of phosphorus loading will also have some corollary effect on reducing bacteria loading, since the nonpoint source nutrient and bacteria loads largely originate from the same sites and materials and are transported via the same processes and pathways.

According to the TMDL I-Plan, management measures for control of phosphorus loading will also have some corollary effect on reducing bacteria loading, since the nonpoint source nutrient and bacteria loads largely originate from the same sites and materials and are transported via the same processes and pathways.

The TMDL for the North Bosque River, Segments 1226 and 1255, identified the amount of phosphorus introduced into these segments, i.e. the load. Phosphorus load from two categories of sources was modeled to calculate the expected reductions in phosphorus load to meet instream water quality standards. Point sources included wastewater treatment plants; non-point sources included all other sources, such as CAFOs. The TMDL called for an average 50% reduction in the average concentration of soluble reactive phosphorus loadings from both point sources and non-point sources. The TMDL was developed assuming implementation of specific best management practices. This set of best management practices represents one way to achieve the water quality targets in stream and the overall reduction goal of the TMDL.

The TMDL was approved with the understanding that an adaptive management approach was an appropriate means to manage phosphorus load to the stream. The I-Plan emphasized this approach to achieve the phosphorus reductions targeted in the TMDL. Adaptive management envisions adjustment of management practices over time as necessary to reach this target. The TMDL anticipated that, to control loading to the stream, dairy CAFO permittees would implement those best management practices which best addressed site-specific conditions. Accordingly, the TMDL is not directly tied to the number of animal units permitted in the watershed; it is instead tied to the amount of nutrients that may be land applied consistent with management practices that ensure appropriate agricultural utilization of nutrients.

Primary management strategies for dairies, both voluntary and regulatory, were identified in the I-Plan which included: phosphorus-based application rates in LMUs, voluntarily measures to reduce the amount of phosphorus in dairy cow diets, voluntarily removing 50% of dairy-generated manure from the watershed, more stringent RCS design requirements to reduce the potential for overflows from RCSs, evaluation of chronic rainfall and incidences of RCS overflows, additional tailwater requirements, additional protective measures to prevent runoff caused by excessive irrigation, CNMPs, and educational requirements for dairy operators and employees.

The proposed permit includes the following requirements to address the recommendations in the I-Plan:

- RCS(s) designed and constructed for 25 year, 10 day rainfall event
- RCS management plan
- pond marker with one foot increments
- daily recordkeeping of wastewater levels

- chronic rainfall discharge notification, including records that substantiate that the overflow was a result of cumulative rainfall that exceeded the design rainfall event without the opportunity for dewatering
- NMP and NUP based on phosphorus risk index
- CNMP
- specific outlets for excess manure, sludge and wastewater
- additional record-keeping for exported manure, sludge and wastewater to track each permittee's contribution toward the 50% voluntary removal goal in the Bosque River Total Maximum Daily Load (TMDL)
- prohibition of discharges from LMUs, except as related to imminent overflow
- minimize ponding and puddling of wastewater and prevent tailwater discharges
- additional conservation practices between land application areas and water in the state
- prohibition of land application between 12 a.m. and 4 a.m.
- automatic shutdown or alarm system may be required if unauthorized discharge occurs from irrigation system
- employee and operator required training related to land application of manure, sludge, and wastewater, proper operation and maintenance of the facility, good housekeeping, material management practices, recordkeeping requirements, and spill response and clean up

The voluntary phosphorus diet reductions may be implemented through consultations between a nutritionist and the permittee. Any such dietary phosphorus reductions will result in reduced phosphorus concentrations in manure. These strategies are facets of CNMPs.

The RCS storage capacity requirements, nutrient management practices, increased TCEQ oversight of operational activities, and requirements of the I-Plan, which are incorporated into the draft permit, are designed to reduce the potential for this CAFO to contribute to further impairment from bacteria, oxygen-demanding constituents and nutrients such as total phosphorus. Furthermore, it is anticipated the implementation of the primary management strategies and permit provisions identified above will result in phosphorus load reduction in the watershed and achieve the reductions targeted in the TMDL. The draft permit provisions are consistent with the approved TMDL and I-Plan that establish measures for reductions in loading of phosphorus (and consequently other potential pollutants) to the North Bosque River Watershed. Therefore, the draft permit is consistent with the requirements of the antidegradation implementation procedures in 30 Texas Administrative Code Section 307.5 (c)(2)(G) of the Texas Surface Water Quality Standards.

# X. Threatened or Endangered Species

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) Biological Opinion on the State of Texas authorization of the Texas

Pollutant Discharge Elimination System (TPDES) dated September 14, 1998 and the October 21, 1998 update. To make this determination for TPDES permits, TCEQ and Environmental Protection Agency only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS Biological Opinion. This determination is subject to reevaluation due to subsequent updates or amendments to the Biological Opinion. The permit does not require Environmental Protection Agency review with respect to the presence of endangered or threatened species.

## **XI. Procedures for Final Decision**

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant instructing the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application, and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Fact Sheet and Executive Director's Preliminary Decision, to the Office of the Chief Clerk. At that time, Notice of Application and Preliminary Decision will be mailed to the individuals identified on the Office of the Chief Clerk mailing list and published in the newspaper. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's Preliminary Decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application. A public meeting is intended for the taking of public comment, and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all timely, relevant and material, or significant public comments significant on the application or the draft permit raised during the public comment period. The Office of the Chief Clerk then mails the Executive Director's Response to Comments and Final Decision to individuals who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that a person may request a contested case hearing or file a request for reconsideration of the Executive Director's decision within thirty (30) days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within thirty (30) days after the Executive Director's Response to Comments and Final Decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ's Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the

Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Kayla Robichaux at (512) 239-4742.

#### XII. Administrative Record

The following items were considered in developing the proposed draft permit:

- TCEQ Permit No. WQ0003160000 issued November 30, 2020.
- The application received on April 24, 2025 and subsequent revisions.
- Interoffice Memorandum for groundwater review from the Water Quality Assessment Team, Water Quality Assessment Section, Water Quality Division dated July 2, 2025.
- Interoffice Memorandum for NMP review from the Water Quality Assessment Team, Water Quality Assessment Section, Water Quality Division, dated August 4, 2025.
- Interoffice Memorandum from the Standards Implementation Team, Water Quality Assessment Section, Water Quality Division, dated July 28, 2025.
- Bosque River TMDL Implementation Plan.
- Federal Clean Water Act Section 402; Section 382.051 of the Texas Clean Air Act; Texas Water Code §26.027; 30 TAC §39, §305, §321 Subchapter B; Commission Policies; and EPA Guidelines.
- Texas 2024 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, June 26, 2024; approved by EPA on November 13, 2024.
- NRCS Animal Waste Management Field Handbook and Field Office Technical Guidance for Texas.
- NRCS, ASABE and ASTM Standards.
- John Borrelli, Clifford B. Fedler & James M. Gregory, February 1, 1998. Mean Crop Consumptive Use and Free-Water Evaporation for Texas.
- U.S. Department of Agriculture, Natural Resources Conservation Service, 25-Year, 10 Day precipitation (inches), Arkansas, Louisiana, New Mexico, Oklahoma and Texas. USDA, Technical Paper No 49, Weather Bureau.
- American Society of Agricultural and Biological Engineers (ASABE) Standards:
  - ➤ ASABE D384.2 MAR05 R2010) Manure Production and Characteristics
  - ➤ ASABE EP403 4 FEB2011- Figure 2 (Loading Rate) and Table 1 (Sludge accumulation Rate)